



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

August 10, 2004

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant

RE: East Coast Fasteners & Closures, Inc / 141-19140-00552

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FN-REGIS.dot 9/16/03



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

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August 10, 2004

Mr. James Lace
General Manager
East Coast Fasteners & Closures, Inc.
1300 Virginia Street
Walkerton, Indiana 46574

Re: Registered Construction and Operation Status,
141-19140-00552

Dear Mr. Lace:

The application from East Coast Fasteners & Closures, Inc. received on May 7, 2004, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1, it has been determined that the proposed following fastener assembly and coating operation, located at 300 Industrial Drive, Walkerton, Indiana 46574, are classified as registered:

- (a) Four (4) fastener assembly areas (identified as A-1 through A-4), constructed in December 2002 used to attach washers to screws and having a maximum combined throughput capacity of 25,000 screws per hour (265 lbs per hour). Emissions of particulate matter from the four (4) assembly areas are controlled by one (1) baghouse D-1, which exhausts at stack V-2.
- (b) One (1) paint booth (identified as PB-1), constructed in December 2002, having a maximum capacity of 25,000 screws per hour, with particulate matter emissions from the paint booth controlled by dry filters, which exhaust through stack V-4.
- (c) One (1) natural gas-fired curing oven (identified as CO-1), installed in December 2002, having a maximum heat input capacity of 0.275 MMBtu per hour and a maximum throughput capacity of 25,000 screws per hour. Emissions of VOC from the curing oven are exhausted through stack V-5.
- (d) One (1) natural gas-fired furnace (identified as F-1), used for heating the front office, having a maximum heat input capacity of 0.100 MMBtu per hour and exhausting to stack V6.
- (e) One (1) natural gas-fired furnace (identified as F-2), used for heating the break room, having a maximum heat input capacity of 0.082 MMBtu per hour and exhausting to stack V7.
- (f) Three (3) natural gas-fired radiant heaters (identified as H-1 through H-3), each having a maximum heat input capacity of 0.100 MMBtu per hour, which exhaust through stack V-1.

The following conditions shall be applicable:

- (a) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period 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.
- (b) Pursuant to 326 IAC 6-3-2, the particulate from the assembly areas identified as A-1 through A-4 shall each be limited to 1.1 pounds per hour, when operating at a maximum process weight of 265 pounds per hour.

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

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

The baghouse D-1 shall be in operation at all times one or more of the assembly areas are in operation, in order to comply with this limit.

- (c) Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), particulate from the surface coating shall be controlled by a dry particulate filters and the Permittee shall operate the control device in accordance with manufacturer's specifications.

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

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

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

- (d) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of the coating delivered to the applicator at the spray booth (PB-1) shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

Compliance with the VOC content limit shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

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

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

C is the VOC content of the coating in pounds VOC per gallon less water as applied; and U is the usage rate of the coating in gallons per day.

- (e) Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of paint booth PB-1 during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.
- (f) Any change or modification which increases the potential VOC emissions to greater than twenty-five (25) tons per year requires prior approval from IDEM, OAQ.
- (g) The potential to emit hazardous air pollutants (HAPs) from this source is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year for any combination of HAPs. Therefore, 326 IAC 2-7 and of 40 CFR 63, Subpart M (National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products) are not applicable. Any change or modification which increases the potential emissions to greater than ten (10) tons per year for any single HAP or greater than twenty-five (25) tons per year for any combination of HAPs requires prior approval from IDEM, OAQ.
- (h) To demonstrate compliance with Condition (d) above, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition (d).
 - (1) The VOC content of each coating material and solvent used less water.
 - (2) The amount of coating material and solvent used on daily basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvent.
 - (3) The volume weighted average VOC content of the coatings used for each day;
 - (4) The daily cleanup solvent usage; and
 - (5) The total VOC usage for each day.

This registration is the first air approval issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3). The annual notice shall be submitted to:

**Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Ms. Amanda Baynham, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7910 to speak directly to Ms. Baynham. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original Signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ERG/AAB

cc: File – St. Joseph County
St. Joseph County Health Department
Air Compliance – Rick Reynolds
Northern Regional Office
Permit Tracking – Sara Cloe
Compliance Data Section

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3).

Company Name:	East Coast Fasteners & Closures, Inc.
Address:	300 Industrial Drive
City:	Walkerton, Indiana 46574
Authorized individual:	Mr. James Lace
Phone #:	(574) 586-3117
Registration #:	141-19140-00552

I hereby certify that East Coast Fasteners & Closures, Inc., is still in operation and is in compliance with the requirements of Registration No. 141-19140-00552.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a New Source Construction and Registration

Source Background and Description

Source Name: East Coast Fasteners & Closures, Inc.
Initial Location: 300 Industrial Drive, Walkerton, Indiana 46574
County: St. Joseph
SIC Code: 3442
Registration No.: R141-19140-00552
Permit Reviewer: ERG/AAB

The Office of Air Quality (OAQ) has reviewed an application from East Coast Fasteners & Closures, Inc. relating to the construction and operation of a fastener assembly and coating facility.

Permitted Emission Units and Pollution Control Equipment

There are no permitted emission units or pollution control equipment at this source.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted emission units:

- (a) Four (4) fastener assembly areas (identified as A-1 through A-4), constructed in December 2002 used to attach washers to screws and having a maximum combined throughput capacity of 25,000 screws per hour (265 lbs per hour). Emissions of particulate matter from the four (4) assembly areas are controlled by one (1) baghouse D-1, which exhausts at stack V-2.
- (b) One (1) paint booth (identified as PB-1), constructed in December 2002, having a maximum capacity of 25,000 screws per hour, with particulate matter emissions from the paint booth controlled by dry filters, which exhaust through stack V-4.
- (c) One (1) natural gas-fired curing oven (identified as CO-1), installed in December 2002, having a maximum heat input capacity of 0.275 MMBtu per hour and a maximum throughput capacity of 25,000 screws per hour. Emissions of VOC from the curing oven are exhausted through stack V-5.
- (d) One (1) natural gas-fired furnace (identified as F-1), used for heating the front office, having a maximum heat input capacity of 0.100 MMBtu per hour and exhausting to stack V6.
- (e) One (1) natural gas-fired furnace (identified as F-2), used for heating the break room, having a maximum heat input capacity of 0.082 MMBtu per hour and exhausting to stack V7.

- (f) Three (3) natural gas-fired radiant heaters (identified as H-1 through H-3), each having a maximum heat input capacity of 0.100 MMBtu per hour, which exhaust through stack V-1.

Existing Approvals

No previous approvals have been issued to this source.

Enforcement Issue

- (a) IDEM is aware that equipment has been constructed and prior to receipt of the proper permit. This subject equipment is listed in this Technical Support Document under the condition entitled "Unpermitted Emission Units and Pollution Control Equipment".
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction and operating permit rules.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
V-1	Radiant Heaters H-1 through H-3	9.5	0.25	750	140
V-2	Assembly Areas (Baghouse D-1)	6.0	1.0	3,200	Ambient
V-3	Paint Storage Area	9.5	0.25	559	Ambient
V-4	Paint Booth (PB-1)	17.5	2.0	7,950	Ambient
V-5	Paint Curing Oven (CO-1)	9.5	1.0	1,600	160
V-6	Furnace F-1	17.5	0.25	200	180
V-7	Furnace F-2	17.5	0.25	200	180

Recommendation

The staff recommends to the Commissioner that the construction and operation 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 May 7, 2004 with additional information received on June 24, 2004 and July 16, 2004.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 5).

Potential to Emit of the Source Before Controls

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

enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/year)
PM	5.52
PM10	5.52
SO ₂	0.002
VOC	13.2
CO	0.28
NO _x	0.33

HAPs	Potential to Emit (tons/yr)
Ethylbenzene	0.64
Toluene	1.38
Hexmethylene 1-6-diisocyanate	0.05
Xylenes	2.09
Total	4.17

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM₁₀ and VOC are less than 25 tons per year but greater than the levels listed in 326 IAC 2-1.1-3(d)(i). Therefore, the source is subject to the provisions of 326 IAC 2-5-1. A registration will be issued.
- (b) Fugitive Emissions
 Since this type of operation is not in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset.

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
8-Hour Ozone	Nonattainment
1-Hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for nonattainment NSR.
- (b) St. Joseph County has been classified as attainment in Indiana for PM₁₀, SO₂, NO₂, CO, Lead and the 1-hour ozone standard. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (c) **Fugitive Emissions**
Since this type of operation is not in one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD applicability.

Source Status

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

Pollutant	Emissions (tons/year)
PM	0.27
PM10	0.27
SO ₂	0.002
VOC	13.2
CO	0.28
NO _x	0.33
Single HAP	2.09
Combination HAPs	4.17

This existing source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater, no nonattainment pollutant is emitted at a rate of 100 tons per year or greater, and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-1.1-5, the PSD and nonattainment new source review requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons per year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this registration.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14 and 20, and 40 CFR Parts 61 and 63) included in this registration.

The requirements of 40 CFR 63, Subpart M (National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products) are not included in this registration because this source is not a major source of hazardous air pollutants.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in St. Joseph County and is not required to operate under a Part 70 permit. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Although located in St. Joseph County, this source is located South of Kem Road and West of Pine Road and is subject to the opacity limits in 326 IAC 5-1-2(1), rather than the more stringent opacity limits in 326 IAC 5-1-2(2).

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

- (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.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The potential to emit hazardous air pollutants from this source is less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

State Rule Applicability – Paint Booth (PB-1)

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

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

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

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

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

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

The paint booth is subject to the requirements of 326 IAC 8-2-9 because this facility is used to coat metal screws under the SIC major group #34, was constructed after July 1, 1990, and has actual VOC emissions greater than fifteen (15) pounds per day.

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of the coating delivered to the applicator at the spray booth (PB-1) shall

be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

Compliance with the VOC content limit shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

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

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

C is the VOC content of the coating in pounds VOC per gallon less water as applied; and U is the usage rate of the coating in gallons per day.

Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of paint booth PB-1 during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

The source is required to maintain records sufficient to demonstrate compliance with 326 IAC 8-2-9.

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

Although construction after January 1, 1980, the paint booth is not subject to the requirements of 326 IAC 8-1-6 because this facility is subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating).

State Rule Applicability – Assembly Areas A-1 through A-4

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

Pursuant to 326 IAC 6-3-2, the particulate from the assembly areas identified as A-1 through A-4, which exhaust through a common stack (V-2), shall be limited to 1.1 pounds per hour, when operating at a maximum process weight of 265 pounds per hour.

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

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

The baghouse D-1 shall be in operation at all times one or more of the assembly areas are in operation, in order to comply with this limit.

State Rule Applicability – Curing Oven (CO-1), Furnaces (F-1 and F-2), and Radiant Heaters (H-1 through H-3)

There are no specific state or federal rules applicable to these emission units.

Conclusion

The construction and operation of this fastener assembly and painting facility shall be subject to the conditions of the Registration No.: 141-19140-00552.

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

Company Name: East Coast Fasteners & Closures, Inc.
Address City IN Zip: 300 Industrial Drive, Walkerton, IN 46574
Registration No. : 141-19140
Plt ID: 141-00552
Reviewer: ERG/AAB
Date: July 15, 2004

Material	Density (Lb/Gal)	Weight % Volatile (H2O & 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)	Transfer Efficiency
Clear Gloss 12V1*	8.17	61.32%	0.0%	61.3%	0.0%	33.74%	1.14E-05	25000	5.01	5.01	1.43	34.27	6.25	1.97	50%
White Satin 12W2A**	11.21	34.97%	0.0%	35.0%	0.0%	48.79%	1.14E-05	25000	3.92	3.92	1.12	26.81	4.89	4.55	50%
12CO Catalyst	8.08	66.71%	0.0%	66.7%	0.0%	28.27%	3.80E-06	25000	5.39	5.39	0.51	12.29	2.24	0.56	50%
T57 Reducer	7.32	100.00%	0.0%	100.0%	0.0%	0.00%	5.68E-06	25000	7.32	7.32	1.04	24.95	4.55	0.00	50%
505-66 Adhesion Additive	9.17	19.40%	0.0%	19.4%	0.0%	72.00%	6.51E-07	25000	1.78	1.78	0.03	0.69	0.13	0.26	50%

State Potential Total Emissions	2.70	64.74	13.18	5.37
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METHODOLOGY

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

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

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

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

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

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

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

Total = Worst Coating + Sum of all solvents used

Notes:

The coating applied to the galvanized screws is a mixture of four components: a base paint, 12CO Catalyst, T57 Reducer, and 505-66 Adhesive.

A number of different base paints are used to prepare the coating. The base paints listed in the table above represent the worst case scenario for VOC and particulate.

1 gallon of coating consists of the following: 0.5289 gal of base paint, 0.1764 gal 12CO catalyst, 0.2644 gal of T57 Reducer, and 0.0303 gal of 505-66 Adhesive.

Approximately 2.15 x 10⁻⁵ gallons of coating is applied to each screw.

*- Worst case base paint for VOC emissions.

** - Worst case base paint for PM/PM10 emissions.

Permittee uses only acetone as cleanup solvent.

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

Company Name: East Coast Fasteners & Closures, Inc.
Address City IN Zip: 300 Industrial Drive, Walkerton, IN 46574
Registration No. : 141-19140
Plt ID: 141-00552
Reviewer: ERG/AAB
Date: July 15, 2004

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Ethylbenzene	Weight % Toluene	Weight % Hexamethylene- 1,6-diisocyanate	Weight % Xylenes	Ethylbenzene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Hexamethylene- 1,6-diisocyanate Emissions (ton/yr)	Xylenes Emissions (ton/yr)
Black Satin 12A2A*	8.52	1.14E-05	25000	2.00%	13.00%	0.00%	0.00%	0.21	1.38	0.00	0.00
White Satin 12W2A**	11.21	1.14E-05	25000	2.00%	9.00%	0.00%	0.00%	0.28	1.26	0.00	0.00
12CO Catalyst	8.08	3.80E-06	25000	0.00%	0.00%	1.60%	0.00%	0.00	0.00	0.05	0.00
T57 Reducer	7.32	5.68E-06	25000	8.00%	0.00%	0.00%	46.00%	0.36	0.00	0.00	2.09
505-66 Adhesion Additive	9.17	6.51E-07	25000	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00
Totals								0.64	1.38	0.05	2.09

TOTAL HAP	4.17
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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

Notes:

The coating applied to the galvanized screws is a mixture of four components: a base paint, 12CO Catalyst, T57 Reducer, and 505-66 Adhesive.

A number of different base paints are used to prepare the coating. The base paints listed in the table above represents the worst case scenario for HAP emissions.

All of the base paints used by East Coast Fasteners & Closures, Inc. two hazardous air pollutants: toluene and ethylbenzene.

1 gallon of coating consists of the following: 0.5289 gal of base paint, 0.1764 gal 12CO catalyst, 0.2644 gal of T57 Reducer, and 0.0303 gal of 505-66 Adhesive.

Approximately 2.15 x 10⁻⁵ gallons of coating is applied to each screw.

*- Worst case base paint for Toluene emissions.

** - Worst case base paint for Ethylbenzene emissions.

Permittee uses only acetone as cleanup solvent.

**Appendix A: Emission Calculations
Natural Gas Combustion in the Paint Curing Oven and Space Heaters**

**Company Name: East Coast Fasteners & Closures, Inc.
Address City IN Zip: 300 Industrial Drive, Walkerton, IN 46574
Registration No. : 141-19140
Plt ID: 141-00552
Reviewer: ERG/AAB
Date: July 15, 2004**

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

0.757

6.6

(includes one 0.275 MMBtu/hr curing oven, one 0.1 MMBtu/hr furnace, one 0.082MMBtu/hr furnace, and three 0.1 MMBtu/hr radiant heaters).

	Pollutant					
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NO _x	VOC	CO
	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.025	0.025	0.002	0.33	0.018	0.28

*PM and PM10 emission factors are filterable PM and PM10 combined.

**Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x 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 from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

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

See next page for HAPs emissions calculations.

Appendix A: Emission Calculations
Natural Gas Combustion in the Paint Curing Oven and Space Heaters

Company Name: East Coast Fasteners & Closures, Inc.
Address City IN Zip: 300 Industrial Drive, Walkerton, IN 46574
Registration No. : 141-19140
Pit ID: 141-00552
Reviewer: ERG/AAB
Date: May 21, 2004

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	6.963E-06	3.979E-06	2.487E-04	5.968E-03	1.127E-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	1.658E-06	3.647E-06	4.642E-06	1.260E-06	6.963E-06

Methodology is the same as previous page.

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: Emission Calculations
Particulate Emissions from Assembly Area
(A-1 through A-4)**

**Company Name: East Coast Fasteners & Closures, Inc.
Address City IN Zip: 300 Industrial Drive, Walkerton, IN 46574
Registration No. : 141-19140
Plt ID: 141-00552
Reviewer: ERG/AAB
Date: July 15, 2004**

Total PM/PM10 collected in Baghouse D-1 = 0.03 lbs/hour

Collection efficiency of Baghouse D-1 = 99 %

Total PM/PM10 Emissions before control = 0.13 tons/year

Total PM/PM10 Emissions after control = 1.30E-03 tons/year

Note: The particulate matter is not produced from the assembly. The particulate emissions come from the dust that is shipped with the screws.

Methodology:

PTE before Controls (tons/yr) = (PM/PM10 collected (lbs/hr)) x (8760 hrs/yr) x (1 ton/2000 lbs) x (1/0.99)

PTE after controls (tons/yr) = (PTE before controls (tons/yr)) x (1 - 0.99)