



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

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May 5, 2004

Mr. James Erick Flinn
Safe-Way Door Company
3814 East US Highway 30
Warsaw, Indiana 46580

Re: Exempt Construction and Operation Status,
085-17174-00093

Dear Mr. Flinn:

The application from Safe-Way Door Company, received on April 21, 2003, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following metal and wood door manufacturing source, located at 3814 East US Highway 30, Warsaw, Indiana, is classified as exempt from air pollution permit requirements:

- (a) One (1) natural gas-fired heating unit, identified as HU-1, constructed in 1987, rated at 1.92 million British thermal units per hour.
- (b) One (1) natural gas-fired heating unit, identified as HU-2, constructed in 1987, rated at 0.400 million British thermal units per hour.
- (c) One (1) natural gas-fired heating unit, identified as HU-3, constructed in 1987, rated at 0.100 million British thermal units per hour.
- (d) One (1) rail line, identified as Rail Line, constructed in 1987, equipped with a bandsaw, capacity: 3,000 pounds of steel rails per hour.
- (e) One (1) paint shop, identified as PB-1, constructed in 1987, equipped with a high volume low pressure (HVLV) spray gun, spray cans and dry fabric filters for particulate control, exhausting to Stack PB-1, capacity: 3,100 pounds of wood panels and parts per hour.
- (f) One (1) steel door specialty line, constructed in 1987, equipped with hand drills and heated wire foam cutter, capacity: 48 pounds of steel doors per hour.
- (g) One (1) wood door specialty line, constructed in 1987, equipped with hand drills, capacity: 3,200 pounds of wood doors per hour.
- (h) One (1) regency line, constructed in 1987, capacity: 960 pounds of steel doors per hour, consisting of:
 - (1) One (1) steel embosser.

- (2) One (1) gluing station, identified as GS-1.
- (3) One (1) hand cleaning station, identified as HC-1.
- (i) One (1) steel line, constructed in 1987, capacity: 2,050 pounds of steel doors per hour, consisting of:
 - (1) One (1) steel embosser.
 - (2) One (1) gluing station, identified as GS-2.
 - (3) One (1) hand cleaning station, identified as HC-2.
- (j) One (1) wood shop, constructed in 1987, equipped with a baghouse and cyclone for particulate control, exhausting to Stacks WS-1, WS-2 and WS-3, capacity: 3,218 pounds of wood doors per hour, consisting of:
 - (1) One (1) frame press.
 - (2) One (1) gluing station, identified as GS-3.
 - (3) One (1) milling machine, identified as MM-1.

The following conditions shall be applicable:

- (1) 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 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.
- (2) Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.
- (3) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the one (1) wood shop shall not exceed 5.64 pounds per hour when operating at a process weight rate of 3,218 pounds of wood doors per hour.

The pounds per hour limitation was calculated with the following equation:

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

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

- (4) Within 180 days of permit issuance, to demonstrate compliance with 326 IAC 2-1.1-3 (Exemptions) and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the

Permittee shall perform PM and PM₁₀ testing for the one (1) wood shop, utilizing methods as approved by the Commissioner. PM₁₀ includes filterable and condensable PM₁₀.

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, 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, OAQ.

A test protocol shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
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 protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ no later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

This exemption is the first air approval issued to this source.

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.

Sincerely,

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

SAR/MES

cc: File - Kosciusko County
Kosciusko County Health Department
Air Compliance – Doyle Houser
Permit Tracking
Compliance Data Section
Office of Enforcement
Air Toxics Program Development Section - Mike Brooks

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	Safe-Way Door Company
Source Location:	3814 East US Highway 30, Warsaw, Indiana 46580
County:	Kosciusko
SIC Code:	2431, 3442
Permit No.:	085-17174-00093
Permit Reviewer:	Stephanie A. Roy

The Office of Air Quality (OAQ) has reviewed an application from Safe-Way Door Company relating to the operation of a metal and wood door manufacturing source.

Permitted Emission Units and Pollution Control Equipment

There are no permitted facilities operating at this source during this review process.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted emission units:

- (a) One (1) natural gas-fired heating unit, identified as HU-1, constructed in 1987, rated at 1.92 million British thermal units per hour.
- (b) One (1) natural gas-fired heating unit, identified as HU-2, constructed in 1987, rated at 0.400 million British thermal units per hour.
- (c) One (1) natural gas-fired heating unit, identified as HU-3, constructed in 1987, rated at 0.100 million British thermal units per hour.
- (d) One (1) rail line, identified as Rail Line, constructed in 1987, equipped with a bandsaw, capacity: 3,000 pounds of steel rails per hour.
- (e) One (1) paint shop, identified as PB-1, constructed in 1987, equipped with a high volume low pressure (HVLP) spray gun, spray cans and dry fabric filters for particulate control, exhausting to Stack PB-1, capacity: 3,100 pounds of wood panels and parts per hour.
- (f) One (1) steel door specialty line, constructed in 1987, equipped with hand drills and heated wire foam cutter, capacity: 48 pounds of steel doors per hour.
- (g) One (1) wood door specialty line, constructed in 1987, equipped with hand drills, capacity: 3,200 pounds of wood doors per hour.
- (h) One (1) regency line, constructed in 1987, capacity: 960 pounds of steel doors per hour, consisting of:
 - (1) One (1) steel embosser.

- (2) One (1) gluing station, identified as GS-1.
- (3) One (1) hand cleaning station, identified as HC-1.
- (i) One (1) steel line, constructed in 1987, capacity: 2,050 pounds of steel doors per hour, consisting of:
 - (1) One (1) steel embosser.
 - (2) One (1) gluing station, identified as GS-2.
 - (3) One (1) hand cleaning station, identified as HC-2.
- (j) One (1) wood shop, constructed in 1987, equipped with a baghouse and cyclone for particulate control, exhausting to Stacks WS-1, WS-2 and WS-3, capacity: 3,218 pounds of wood doors per hour, consisting of:
 - (1) One (1) frame press.
 - (2) One (1) gluing station, identified as GS-3.
 - (3) One (1) milling machine, identified as MM-1.

Existing Approvals

The source has no previous approvals.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
H1	Heating Unit HU-1	15.0	0.667	13,500	100
H2	Heating Unit HU-2	15.0	0.333	400	100
H3	Heating Unit HU-2	15.0	0.333	400	100
H4	Heating Unit HU-3	15.0	0.667	90.0	100
H5	Heating Unit HU-3	15.0	0.667	90.0	100
H6	Heating Unit HU-3	15.0	0.667	90.0	100
PB-1	Paint Booth	15.0	3.00	13,000	Ambient
WS-1	Wood Shop	14.0	1.50	9,000	Ambient
WS-2	Wood Shop	14.0	1.50	9,000	Ambient
WS-3	Wood Shop	14.0	1.50	9,000	Ambient

Recommendation

The staff recommends to the Commissioner that the 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 April 21, 2003, with additional information received on September 12, September 26 and October 2, 2003 as well as March 29, 2004.

Emission Calculations

See Appendix A, pages 1 through 6 of 6, of this document for detailed emission calculations.

There are no emissions associated with the one (1) rail line, the one (1) steel door specialty line, the one (1) wood door specialty line, the steel embosser associated with the one (1) regency line, the steel embosser associated with the one (1) steel line or the frame press associated with the one (1) wood shop.

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/yr)
PM	6.73
PM ₁₀	4.00
SO ₂	0.008
VOC	5.34
CO	1.11
NO _x	1.32
HAPs	Potential to Emit (tons/yr)
Benzene	0.00003
Dichlorobenzene	0.00002
Formaldehyde	0.001

Hexane	0.836
Toluene	0.325
Lead Compounds	0.00001
Cadmium Compounds	0.00001
Chromium Compounds	0.00002
Manganese Compounds	0.00001
Nickel Compounds	0.00003
Xylene	0.991
Glycol Ethers	0.487
EthylBenzene	0.194
Methylene Bisphenyl Isocyanate	0.224
Total	2.88

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.
- (c) Fugitive Emissions
 Since this type of operation is not 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 applicability.

County Attainment Status

The source is located in Kosciusko County.

Pollutant	Status
PM ₁₀	Attainment
SO ₂	Attainment
NO ₂	Attainment

Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Kosciusko County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) Kosciusko County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

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/yr)
PM	1.89
PM ₁₀	1.55
SO ₂	0.008
VOC	5.34
CO	1.11
NO _x	1.32
Single HAP	less than 10
Combination HAPs	2.88

- (a) This new source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, the PSD 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) applicable to this source.
- (b) The source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Miscellaneous Metal Parts, Subpart MMMM, because the source is not a major source for HAPs.
- (c) The source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Wood Building Products, Subpart QQQQ, because the source is not a major source for HAPs.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

The unrestricted potential to emit from this source is less than 250 tons per year of any pollutant and it is not one of the 28 sources listed under 326 IAC 2-2 in Kosciusko County. Therefore, the requirements of 326 IAC 2-2 do not apply.

326 IAC 2-4.1-1 (New Source Toxics Control)

The source was constructed prior to July 27, 1997 and is therefore not subject to the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control).

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A,

Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability – Individual Facilities

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

- (a) The particulate from the one (1) wood shop, with a process weight rate of 3,218 pounds of wood doors per hour, shall be limited by the following:

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:

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

$$E = 4.10 (1.61)^{0.67} = 5.64 \text{ pounds per hour}$$

The potential PM emissions from the one (1) wood shop are equal to 1.30 pounds per hour and the potential controlled PM emissions from the one (1) wood shop are equal to 0.195 pounds per hour. Therefore, the one (1) wood shop will comply with this rule.

- (b) Pursuant to 326 IAC 6-3-1(b)(15), the one (1) paint shop is not subject to the requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) because the one (1) paint shop uses less than five (5) gallons per day of all coating materials.
- (c) Pursuant to 326 IAC 6-3-1(b)(15), the one (1) regency line is not subject to the requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) because the one (1) gluing station uses less than five (5) gallons per day of all coating materials. There are no particulate emissions associated with the one (1) steel embosser, which is part of the one (1) regency line.
- (d) Pursuant to 326 IAC 6-3-1(b)(15), the one (1) steel line is not subject to the requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) because the one (1) gluing station uses less than five (5) gallons per day of all coating materials. There are no particulate emissions associated with the one (1) steel embosser, which is part of the one (1) steel line.
- (e) The one (1) rail line is not subject to the requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) because there are no particulate emissions associated with this operation.
- (f) The one (1) steel door specialty line is not subject to the requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) because there are no particulate emissions associated with this operation.
- (g) The one (1) wood door specialty line is not subject to the requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) because there are no particulate emissions associated with this operation.

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

- (a) The one (1) paint shop and the one (1) wood shop which is equipped with a gluing station are not subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) because only wood products are coated at these operations.
- (b) The one (1) regency line and the one (1) steel line, both constructed in 1987, are not subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) because the potential to emit VOC at these operations are less than twenty-five (25) tons per year.

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

The one (1) paint shop, the one (1) regency line, the one (1) steel line and the one (1) wood shop all are not subject to the requirements of 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating) because these facilities only apply coatings to metal and wood door components, which are not considered wood furnishings or cabinets.

Testing Requirements

Proposed Stack Tests

The following stack testing requirement is proposed for the wood shop control equipment:

In order to show compliance with of 326 IAC 2-1.1-3 (Exemptions), the source must perform PM and PM₁₀ stack testing for the one (1) wood shop. The inlet air flow rate must be tested to verify that the potential to emit before controls is less than 5.70 pounds per hour of PM and PM₁₀. The outlet air flow rate must be tested to show compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

Conclusion

The operation of this metal and wood door manufacturing source shall be subject to the conditions of the Exemption 085-17174-00093.

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

**Company Name: Safe-Way Door Company
Address City IN Zip: 3814 East U.S. Highway 30, Warsaw, Indiana
Permit Number: Exemption 085-17174
Plt ID: 085-00093
Reviewer: Stephanie A. Roy
Date: April 21, 2003**

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)	lb VOC/gal solids	Transfer Efficiency
Paint Booth																
Yenkin White Primer	9.27	50.45%	0.00%	50.45%	0.00%	49.55%	0.00145	138	4.68	4.68	0.94	22	4.1	1.01	9.44	75.0%
Bright White	6.566	79.31%	0.00%	79.31%	0.00%	11.26%	0.00001	138	5.21	5.21	0.007	0.172	0.031	0.002	46.2	75.0%
Regency and Steel Lines																
PL-200 Construction Adhesive	10.121	30.0%	0.00%	30.0%	0.00%	45.0%	0.00015	500	3.04	3.04	0.228	5.47	1.00	0.00	6.75	100%
Regency Line																
Scotch Grip Industrial Adhesive	6.84	65.0%	0.00%	65.0%	0.00%	41.0%	0.00001	726	4.45	4.45	0.032	0.775	0.141	0.00	10.8	100%
Wood Shop																
Multibond 2025	9.246	49.0%	48.996%	0.004%	52.0%	47.9%	0.00264	726	0.001	0.0004	0.001	0.017	0.003	0.00	0.001	100%
Mineral Spirits	6.589	100%	0.00%	100%	0.00%	0.00%	0.01200	1.00	6.59	6.59	0.079	1.898	0.346	0.00	N/A	100%

PM Control Efficiency: 95.0%

State Potential Emissions

Add worst case coating to all solvents

Uncontrolled	1.20	28.9	5.27	1.01
Controlled	1.20	28.9	5.27	0.050

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

**Appendix A: Emission Calculations
HAP Emission Calculations**

Company Name: Safe-Way Door Company
Address City IN Zip: 3814 East U.S. Highway 30, Warsaw, Indiana 46580
Permit Number: Exemption 085-17174
Plt ID: 085-00093
Permit Reviewer: Stephanie A. Roy
Date: April 21, 2003

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Hexane	Weight % Glycol Ethers	Weight % EthylBenzene	Weight % Methylene Bisphenyl Isocyanate	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	EthylBenzene Emissions (ton/yr)	Methylene Bisphenyl Isocyanate (ton/yr)
Surface Coating															
Yenkin White Primer	9.27	0.00145	138	1.20%	0.00%	0.00%	0.00%	0.300%	0.00%	0.097	0.00	0.00	0.00	0.024	0.00
Bright White	6.566	0.00001	138	9.00%	1.00%	0.00%	6.00%	2.092%	0.00%	0.731	0.081	0.00	0.487	0.170	0.00
Regency and Steel Lines															
PL-200 Construction Adhesive	10.1	0.00015	500	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.162	0.00	0.00	0.00	0.00	0.00
Regency Line															
Scotch Grip Industrial Adhesive	6.84	0.00001	726	0.00%	3.00%	10.0%	0.00%	0.00%	0.00%	0.00	0.244	0.812	0.00	0.00	0.00

Total State Potential Emissions

0.991 0.325 0.812 0.487 0.194 0.000

Overall Total 2.81

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

**Appendix A: Emissions Calculations
Particulate from Woodworking Operations**

Company Name: Safe-Way Door Company
Address City IN Zip: 3814 East U.S. Highway 30 Warsaw, Indiana 46580
Permit Number: Exemption 085-17174
Plt ID: 085-00093
Reviewer: Stephanie A. Roy
Date: April 21, 2003

Amount of PM Collected by Cyclone (lbs/hr)	Amount of PM10 Collected by Cyclone (lbs/hr)	Cyclone Collection Efficiency (%)
0.195	0.099	85.0%

PM Emission Rate Before Controls

PM (lbs/hr)	PM10 (lbs/hr)
1.30	0.660

PM (tons/yr)	PM10 (tons/yr)
5.69	2.89

PM Emission Rate After Controls

PM (lbs/hr)	PM10 (lbs/hr)
0.195	0.099

PM (tons/yr)	PM10 (tons/yr)
0.854	0.434

Methodology

PM Emission Rate Before Controls (lbs/hr) = PM Collected by Cyclone (lbs/hr) x (1 - Control Efficiency)

PM Emission Rate After Controls (lbs/hr) = PM Collected by Cyclone (lbs/hr)

PM Emission Rate (tons/yr) = PM Emission Rate (lbs/hr) x 8,760 hrs/yr x 1 ton/2,000lbs

The amount of PM/PM10 collected by the cyclone is the average of two (2) tests run on the dust collector cyclone exhaust duct on February 19, 2004.

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

Company Name: Safe-Way Door Company
Address City IN Zip: 3814 East U.S. Highway 30, Warsaw, Indiana 46580
Permit Number: Exemption 085-17174
Plt ID: 085-00093
Reviewer: Stephanie A. Roy
Date: April 21, 2003

Heat Input Capacity
MMBtu/hr

3.02

Potential Throughput
MMCF/yr

26.5

One (1) heating unit rated at 1.92 MMBtu/hr.
 Two (2) heating units rated at 0.400 MMBtu/hr, each.
 Three (3) heating units rated at 0.100 MMBtu/hr, each.

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100	5.50	84.0
				**see below		
Potential Emission in tons/yr	0.025	0.101	0.008	1.32	0.073	1.11

*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

See page 5 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 HAPs Emissions**

Company Name: Safe-Way Door Company
Address City IN Zip: 3814 East U.S. Highway 30, Warsaw, Indiana 46580
Permit Number: 085-17174
Pit ID: 085-00093
Reviewer: Stephanie A. Roy
Date: April 21, 2003

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 0.002	Dichlorobenzene 0.001	Formaldehyde 0.075	Hexane 1.80	Toluene 0.003
Potential Emission in tons/yr	0.00003	0.00002	0.001	0.024	0.00004

HAPs - Metals						
Emission Factor in lb/MMcf	Lead 0.001	Cadmium 0.001	Chromium 0.001	Manganese 0.0004	Nickel 0.002	Total
Potential Emission in tons/yr	0.00001	0.00001	0.00002	0.00001	0.00003	0.025

Methodology is the same as page 4.

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
Summary from Entire Source**

Company Name: Safe-Way Door Company
Address City IN Zip: 3814 East U.S. Highway 30, Warsaw, Indiana 46580
Permit Number: Exemption 055-17174
Plt ID: 005-00093
Reviewer: Stephanie A. Roy
Date: April 21, 2003

Uncontrolled Emissions (tons per year)

Facility	PM	PM10	SO2	NOx	VOC	CO
Surface Coating / Assembly	1.01	1.01	0.00	0.00	5.27	0.00
Woodworking	5.69	2.89	0.00	0.00	0.00	0.00
Combustion	0.025	0.101	0.008	1.32	0.073	1.11
Total	6.73	4.00	0.008	1.32	5.34	1.11

Controlled Emissions (tons per year)

Facility	PM	PM10	SO2	NOx	VOC	CO
Surface Coating / Assembly	1.01	1.01	0.00	0.00	5.27	0.00
Woodworking	0.854	0.434	0.00	0.00	0.00	0.00
Combustion	0.025	0.101	0.008	1.32	0.073	1.11
Total	1.89	1.55	0.008	1.32	5.34	1.11

HAPs Emissions (tons per year)

Facility	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Lead
Surface Coating / Assembly	0.00	0.00	0.00	0.812	0.325	0.00
Woodworking	0.00	0.00	0.00	0.00	0.00	0.00
Combustion	0.00003	0.00002	0.001	0.024	0.00004	0.00001
Total	0.00003	0.00002	0.001	0.836	0.325	0.00001

Facility	Cadmium	Chromium	Manganese	Nickel	Xylene	Glycol Ethers
Surface Coating / Assembly	0.00	0.00	0.00	0.00	0.991	0.487
Woodworking	0.00	0.00	0.00	0.00	0.00	0.00
Combustion	0.00001	0.00002	0.00001	0.00003	0.00	0.00
Total	0.00001	0.00002	0.00001	0.00003	0.991	0.487

Facility	EthylBenzene	Methylene Bisphenyl Isocyanate	Overall Total
Surface Coating / Assembly	0.194	0.244	2.859
Woodworking	0.00	0.00	0.00
Combustion	0.00	0.00	0.025
Total	0.194	0.244	2.884