

July 16, 2001

Mr. Michael Wolter  
Skyline Corporation  
P.O. Box 743  
Elkhart, IN 46515

Re: **039-14456-00306**  
First Minor Permit Modification to  
Part 70 No.: **T 039-9115-00306**

Dear Mr. Wolter:

Skyline Corporation was issued a permit on March 19, 1999 for a stationary recreational vehicle (RV) manufacturing plant. A letter requesting changes to this permit was received on May 25, 2001. Pursuant to the provisions of 326 IAC 2-7-12 a minor permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the addition of a recreational vehicle wall panel manufacturing operation at their existing recreational vehicle manufacturing plant, including:

- (a) one (1) hot melt rollcoater, applying adhesives to vehicle wall panels with a maximum production rate of 60 panels per hour;
- (b) one (1) vinyl, fiberglass, and luan machining process, including one (1) table saw and two (2) hand routers, machining one quarter inch luan, fiberglass, and vinyl at a maximum rate of 600 pounds per hour, with emissions controlled by baghouse 1, and emissions exhausted into the building;
- (c) one (1) welding process, including one (1) metal inert gas (MIG) welder, welding trailer wall frames with a maximum wire consumption rate of 4.7 pounds per hour; and
- (d) ten (10) natural gas fired space heaters, with a combined capacity of 1.6 MMBtu/hr. changes in the VOC and HAP limits from a 365-day period to a twelve (12) consecutive month period and in the corresponding reporting requirements.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages 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 Scott Fulton, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for Scott Fulton or extension (3-5691), or dial (317) 233-5691.

Sincerely,

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

Attachments  
SDF

cc: File - Elkhart County  
U.S. EPA, Region V  
Elkhart County Health Department  
Northern Regional Office  
Air Compliance Section Inspector - Greg Wingstrom and Paul Karkarkiewicz  
Compliance Data Section - Karen Nowak  
Administrative and Development - Janet Mobley  
Technical Support and Modeling - Michele Boner

**PART 70 OPERATING PERMIT  
and ENHANCED NEW SOURCE REVIEW  
OFFICE OF AIR QUALITY**

**Skyline Corporation (Formerly Nomad / Layton - Elkhart)  
401 County Road 15 South  
Elkhart, Indiana 46515**

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T039-9115-00306	Date Issued: March 19, 1999
First Minor Permit Modification: T039-14456-00306	Affected Pages: 4 and 5, with Pages 5a and 29a added
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: July 16, 2001

D.2.6 Volatile Organic Compounds

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

D.2.7 Monitoring

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

D.2.8 Record Keeping Requirements

**D.3 FACILITY OPERATION CONDITIONS - RV Wall Panel Manufacturing Operation**

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

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

D.3.2 VOC Content of Adhesives Applied to Vinyl [326 IAC 8-2-11]

**Compliance Determination Requirements**

D.3.3 Testing Requirements [326 IAC 2-7-6(1)]

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

D.3.4 Record Keeping Requirements

**Certification**

**Emergency/Deviation Occurrence Report**

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM), and presented in the permit application.

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

---

The Permittee owns and operates a stationary recreational vehicle (RV) manufacturing plant.

Responsible Official: Ken McCain  
Source Address: 401 County Road 15 South, Elkhart, Indiana 46515  
Mailing Address: P. O. Box 743, Elkhart, Indiana 46515-0743  
SIC Code: 3792  
County Location: Elkhart  
County Status: Maintenance for Ozone and Attainment for all other criteria pollutants  
Source Status: Part 70 Permit Program and ENSR  
Minor Source, under PSD Rules;  
Major Source, Section 112 of the Clean Air Act

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

---

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

- (a) Thirty nine (39) stationary and hand-held wood cutting saws rated at a maximum throughput of 132,188 pounds per hour, particulate matter controlled by a cyclone separator and exhausting to stack identified as C-3 in plant 2;
- (b) Various aerosol cans and manual tube extrusion guns for coating recreational vehicles in the plant 1 and 2 with a maximum capacity of manufacturing three (3) recreational vehicles per hour, with no control for overspray. This assembly area was constructed prior to 1980.
- (c) One (1) recreational vehicle wall panel manufacturing operation, including:
  - (1) one (1) hot melt rollcoater, applying adhesives to vehicle wall panels with a maximum production rate of 60 panels per hour;
  - (2) one (1) vinyl, fiberglass, and luan machining process, including one (1) table saw and two (2) hand routers, machining one quarter inch luan, fiberglass, and vinyl at a maximum rate of 600 pounds per hour, with emissions controlled by baghouse 1, and emissions exhausted into the building;
  - (3) one (1) welding process, including one (1) metal inert gas (MIG) welder, welding trailer wall frames with a maximum wire consumption rate of 4.7 pounds per hour; and
  - (4) ten (10) natural gas fired space heaters, with a combined capacity of 1.6 MMBtu/hr.

### A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

---

This Stationary source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21) that have applicable requirements.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

---

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

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

A.5 Prior Permit Conditions Superseded [326 IAC 2]

---

The terms and conditions of this permit incorporate all the current applicable requirements for all emission units located at this source, and supersede all terms and conditions in all registrations and permits, including construction permits, issued prior to the date of issuance of this permit. All terms and conditions in such registrations and permits are no longer in effect.

## SECTION D.3 FACILITY CONDITIONS

One (1) recreational vehicle wall panel manufacturing operation, including:

- (a) one (1) hot melt rollcoater, applying adhesives to vehicle wall panels with a maximum production rate of 60 panels per hour;
- (b) one (1) vinyl, fiberglass, and luan machining process, including one (1) table saw and two (2) hand routers, machining one quarter inch luan, fiberglass, and vinyl at a maximum rate of 600 pounds per hour, with emissions controlled by baghouse 1, and emissions exhausted into the building;
- (c) one (1) welding process, including one (1) metal inert gas (MIG) welder, welding trailer wall frames with a maximum wire consumption rate of 4.7 pounds per hour; and
- (d) ten (10) natural gas fired space heaters, with a combined capacity of 1.6 MMBtu/hr.

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

#### D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the welding process shall not exceed 0.55 lb/hr and the PM emissions from the luan, fiberglass, and vinyl machining process shall not exceed 1.83 pounds per hour.

#### D.3.2 VOC Content of Adhesives Applied to Vinyl [326 IAC 8-2-11]

Pursuant to 326 IAC 8-2-11, the VOC content of the adhesive when applied to vinyl, shall be limited to 4.8 lb/gal, excluding water, as delivered to the applicator.

### Compliance Determination Requirements

#### D.3.3 Testing Requirements [326 IAC 2-7-6(1)]

Testing of the units of the wall manufacturing operation is not specifically required by this permit. However, if the OAQ requests, compliance with the particulate matter (PM) limit specified in Condition D.3.1 shall be determined by a performance tests conducted in accordance with Section C - Performance Testing. This does not preclude testing requirements on this facility under 326 IAC 2-7-5 and 326 IAC 2-7-6.

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

#### D.3.4 Record Keeping Requirements

To document compliance with Condition D.3.2, the Permittee shall maintain copies of the most current Material Safety Data Sheets (MSDS) for all adhesives applied to vinyl by the hot melt rollcoater. Said MSDS shall be maintained at the source at all times the adhesives are utilized by the source.

If the Permittee terminates use of an adhesive, the Permittee shall retain the MSDS for that adhesive for a minimum period of five (5) years after the date the adhesive is no longer used. After the five (5) year period, the Permittee may discard said MSDS.

All MSDS shall be made available to the Office of Air Quality upon request.

## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for an Exemption / Minor Permit Modification to a Part 70 Permit

#### Source Background and Description

**Source Name:** Skyline Corporation  
**Source Location:** 401 County Road 15 South, Elkhart, Indiana 46515  
**County:** Elkhart  
**SIC Code:** 3792  
**Operation Permit No.:** T 039-9115-00306  
**Operation Permit Issuance Date:** March 19, 1999  
**Significant Permit Revision No.:** T 039-14456-00306  
**Permit Reviewer:** SDF

The Office of Air Quality (OAQ) has reviewed an Exemption / Minor Permit Modification application from Skyline Corporation relating to the operation of their existing stationary recreational vehicle (RV) manufacturing plant.

#### Background

On May 25, 2001, Skyline Corporation submitted an application to install a recreational vehicle wall panel manufacturing operation at their existing recreational vehicle manufacturing plant, including:

- (a) one (1) hot melt rollcoater, applying adhesives to vehicle wall panels with a maximum production rate of 60 panels per hour;
- (b) one (1) vinyl, fiberglass, and luan machining process, including one (1) table saw and two (2) hand routers, machining one quarter inch luan, fiberglass, and vinyl at a maximum rate of 600 pounds per hour, with emissions controlled by baghouse 1, and emissions exhausted into the building;
- (c) one (1) welding process, including one (1) metal inert gas (MIG) welder, welding trailer wall frames with a maximum wire consumption rate of 4.7 pounds per hour; and
- (d) ten (10) natural gas fired space heaters, with a combined capacity of 1.6 MMBtu/hr.

The emissions generated by the proposed recreational vehicle wall panel manufacturing operation are VOC and HAP emissions generated by the hot melt rollcoater, PM and PM10 emissions generated by the luan, fiberglass, and vinyl machining process, PM, PM10 and HAP emissions from the welding process, and criteria and HAP emissions from the space heaters. The addition of the proposed wall manufacturing operation will not result in any increases in production at any other part of the recreation vehicle manufacturing operation.

The proposed modification is determined to be exempt for the purposes of New Source Review.

The new applicable requirements are 326 IAC 6-3-2 and 326 IAC 8-2-11.

326 IAC 6-3-2 limits the PM emissions from the welding and luan, fiberglass, and vinyl machining processes to 0.55 and 1.83 lb/hr, respectively. The unrestricted PM potential to emit from the welding and luan, fiberglass, and vinyl machining processes (0.03 and 0.72 lb/hr) are less than their respective 326 IAC 6-3-2 hourly limits. Thus, compliance is achieved.

326 IAC 8-2-11 limits the VOC content of the adhesives applied to vinyl to 4.8 lb/gal, excluding water, as applied. The VOC content is determined to be 0.18 lb/gal, excluding water, which is less than the 326 IAC 8-2-11 VOC content limit. Thus, compliance is determined to be achieved. To demonstrate compliance on a more continuous basis, the source is required to keep records of VOC content of the adhesives applied to vinyl, with said records being made available to the Office of Air Quality upon request.

No stack testing is required because the welding and machining processes achieve compliance with their respective 326 IAC 6-3-2 limits without the use of emission controls or limits. No compliance monitoring is required because there are no units that meet the applicable requirements stated in the "Title V Air Permit Compliance Monitoring Facts", issued on May 14, 1996.

The proposed modification shall be incorporated into the Title V permit via a minor permit modification pursuant to 326 IAC 2-7-12(d).

### Existing Approvals

The source was issued Title V permit (039-9115-00306) on March 19, 1999. The source has been operating under this permit and the following approvals including, but not limited to, the following:

1. State Construction Permit:	039-9516-00306	Issued: 3-3-98
2. Amendment:	039-10193-00306	Issued: 12-28-98
(c) Exemption:	039-10776-00306	Issued: 7-26-99
(d) Administrative Amendment:	039-10903	Issued: 5-19-99

### Enforcement Issue

There are no enforcement actions pending.

### Recommendation

The staff recommends to the Commissioner that this exemption / minor permit modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application.

### Emission Calculations

#### **UNRESTRICTED POTENTIAL TO EMIT DUE TO THE MODIFICATION:**

The emissions generated by the proposed recreational vehicle wall panel manufacturing operation are VOC and HAP emissions generated by the hot melt rollcoater, PM and PM10 emissions generated by the luan, fiberglass, and vinyl machining process, PM, PM10 and HAP emissions from the welding process, and criteria and HAP emissions from the space heaters.



**Summary of Unrestricted Potential to Emit:**

	PM tons/yr	PM10 tons/yr	SO2 tons/yr	NOx tons/yr	VOC tons/yr	CO tons/yr
Space Heaters	0.10	0.10	neg.	0.70	neg.	0.60
Roll Coat	-	-	-	-	4.22	-
Vinyl/Luan	3.15	3.15	-	-	-	-
Welding	0.11	0.11	-	-	-	-
<b>Total</b>	<b>3.36</b>	<b>3.36</b>	<b>neg.</b>	<b>0.70</b>	<b>4.22</b>	<b>0.60</b>

HAP	tons/yr
MDI	2.64
Cr	neg.
Co	neg.
Mn	0.07
Ni	neg.
<b>Total</b>	<b>2.71</b>

**10 Natural Gas Space Heaters:**

The following calculations determine the unrestricted PTE from the space heaters based on natural gas combustion, a combined capacity of 1.6 MMBtu/hr, AP-42 emission factors, emissions before controls, and 8760 hours of operation.

$$1.6 \text{ MMBtu/hr} * 8760 \text{ hr/yr} * 1 \text{ E6 Btu/MMBtu} * 1/1000 \text{ cf/Btu} * 1/1\text{E6 MMcf/cf} * \text{Ef lb poll/MMcf} * 1/2000 \text{ ton poll/lb poll} = \text{ton poll/yr}$$

	PM 7.6 lb/MMcf	PM10 7.6 lb/MMcf	SO2 0.6 lb/MMcf	NOx 100 lb/MMcf	VOC 5.5 lb/MMcf	CO 84 lb/MMcf
<b>ton/yr</b>	<b>0.10</b>	<b>0.10</b>	<b>neg.</b>	<b>0.70</b>	<b>neg.</b>	<b>0.60</b>

The emissions are uncontrolled.

**Hot Melt Rollcoater:**

The following calculations determine the unrestricted PTE from the hot melt rollcoater based on use of the worst case adhesive/solvent, 60 units/hr, the maximum coating/solvent application per unit, emissions before controls, and 8760 hours of operation.

**VOC:**

Tons VOC/yr = density (lb/gal) \* wt% VOC \* gal/unit \* units/hr \* 8760 hr/yr \* 1/2000 ton/lb

	Density (lb/gal)	wt% VOC	gal/unit	units/hr	tons VOC/hr
Adhesive	8.80	2	0.057	60	2.64
Solvent	8.83	97	0.0007	60	1.58
<b>Total</b>					<b>4.22</b>

**HAPs:**

The adhesive contains 2% methylene bisphenyl diisocyanate (MDI) which is a hazardous air pollutant (HAP). There are no HAPs associated with the solvent.

The following calculations determine the HAP emissions based on 2% HAP, the maximum gallons per unit, the maximum number of units per hour, 8760 hours of operation, and emissions before controls.

$$8.8 \text{ lb/gal} * 0.02 * 0.057 \text{ gal/unit} * 60 \text{ units/hr} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb} = \mathbf{2.64 \text{ tons MDI/yr}}$$

**Vinyl and Luan Machining:**

The following calculations determine the unrestricted potential to emit from the vinyl and luan machining process based on a maximum process weight of 600 lb/hr, 2% sawdust, and 6% of sawdust as PM.

$$600 \text{ lb/hr} * 0.02 * 0.06 * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb} = \mathbf{3.15 \text{ tons PM/yr}}$$

PM is determined to be equal to PM10.

**Welding Process:**

The following calculations determine the unrestricted potential to emit from the welding process based on MIG welding, a maximum wire consumption of 4.7 lb/hr, AP-42 emission factors, emissions before controls, and 8760 hours of operation.

$$4.7 \text{ lb wire/hr} * \text{Ef lb Poll/1000 lb wire} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb} = \text{tons Poll./yr}$$

	PM	PM10	Cr	Co	Mn	Ni
	5.2	5.2	0.01	0.01	3.18	0.01
<b>tons/yr</b>	<b>0.11</b>	<b>0.11</b>	<b>neg.</b>	<b>neg.</b>	<b>0.07</b>	<b>neg.</b>

**Potential To Emit**

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

This table reflects the PTE before controls due to the proposed operation based on the above estimated emissions calculations. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	3.36
PM-10	3.36
SO <sub>2</sub>	neg.
VOC	4.22
CO	0.60
NO <sub>x</sub>	0.70

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP	tons/yr
MDI	<b>2.64</b>
Cr	neg.
Co	neg.
Mn	0.07
Ni	neg.
<b>Total</b>	<b>2.71</b>

**Justification for Modification**

The unrestricted potential to emit of all criteria pollutants from the proposed recreational vehicle wall panel manufacturing operation are at exempt levels under 326 IAC 2-1.1-3, but the single and combined HAP unrestricted potential to emit are greater than the respective 326 IAC 2-1.1-3 levels of 1 ton/yr and 2.5 tons/yr. Thus, the proposed modification is not exempt under 326 IAC 2-1.1-3.

However, even though the single and combined HAP unrestricted potential to emit are greater than the 326 IAC 2-1.1-3 exempt levels, the proposed modification is still determined to be exempt for the purposes of New Source Review because the proposed modification is not a minor source modification under 326 IAC 2-7-10.5(d) and is less than the levels listed for a significant source modification under 326 IAC 2-7-10.5(f)(6).

The proposed modification shall be incorporated into the Title V permit via a minor permit modification pursuant to 326 IAC 2-7-12(c).

**County Attainment Status**

The source is located in Elkhart County.

Pollutant	Status
PM <sub>10</sub>	attainment or unclassifiable
SO <sub>2</sub>	attainment or unclassifiable
NO <sub>2</sub>	attainment or unclassifiable
Ozone	maintenance attainment or unclassifiable
CO	attainment or unclassifiable
Lead	attainment or unclassifiable

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as maintenance attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2 and 40 CFR 52.21.
- (b) Elkhart County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions

Since this type of operation is not 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 PM emissions are not counted toward determination of PSD and Emission Offset applicability.

**Source Status**

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

Pollutant	Emissions (tons/year)
PM	0.70
PM10	0.70
SO <sub>2</sub>	0.0
VOC	93.90
CO	0.0
NO <sub>x</sub>	0.0
Single HAP	40.0
Combination of HAPs	59.50

- (a) This existing source is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not one of the 28 listed source categories.
- (b) This existing source is a Title V major stationary source because the worst case single regulated hazardous air pollutant (HAP) is emitted at a rate greater than 10 tons per year and the combined HAP emissions are greater than 25 tons per year.
- (c) The existing source emissions are obtained from the TSD for the Title V permit (039-9115-00306), issued on March 19, 1999.

**Potential to Emit of Source After Issuance**

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

Process/facility	Potential to Emit (tons/year)						
	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Existing Source PTE	95.00	95.00	0.00	93.90	0.00	0.00	59.50
Modification PTE	3.36	3.36	neg.	4.22	0.60	0.70	2.71
Source After Proposed Revision	<b>98.36</b>	<b>98.36</b>	<b>neg.</b>	<b>98.10</b>	<b>0.60</b>	<b>0.70</b>	<b>62.21</b>

  

Part 70 Major Source Threshold	-	100	100	100	100	100	10 ind. 25 tot.
PSD Threshold Level	250	250	250	100	250	250	-

- (a) This modification to the existing minor PSD stationary source is not major because the emissions after the modification are less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.
- (b) This modification to the existing Title V permit will not change the status of the stationary source because the emissions from the entire source worst case single HAP and combined HAP emissions will be greater than their respective thresholds of 10 and 25 tons per year.

**Federal Rule Applicability**

**New Source Performance Standards (NSPS):**

There are no New Source Performance Standards (NSPS) that apply to the proposed modification.

**National Emission Standards for Hazardous Air Pollutants (NESHAP):**

There are no National Emission Standards that apply to the proposed modification.

## State Rule Applicability

### Entire Source:

There are no entire source state rules that become applicable due to this proposed modification because the preventive maintenance plan (326 IAC 1-6-3), opacity limitations (326 IAC 5-1), fugitive dust limitations (326 IAC 6-4), and emission statement (326 IAC 2-6) already apply.

### Individual Facilities:

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

The roll coating process is not subject to 326 IAC 8-2-9 because the adhesive is applied to luan, fiberglass, and vinyl, not metal.

#### 326 IAC 8-2-11 (Surface Coating Emission Limitations: Fabric and Vinyl Coating):

The roll coating process is subject to 326 IAC 8-2-11 because the roll coater applies adhesives, a functional topcoat to vinyl.

Pursuant to 326 IAC 8-2-11, the VOC content of the adhesive when applied to vinyl, shall be limited to 4.8 lb/gal excluding water, as delivered to the applicator.

The estimated VOC content of the adhesive, excluding water, as delivered to the applicator, is determined to be 0.18 lb/gal which is less than the 4.8 lb/gal limit.

(Density (lb/gal)) \* wt% VOC / (1 - vol% water)

[8.8 lb/gal \* 0.02] / [1 - 0] = 0.18 lb/gal, excluding water

Thus, overall compliance is determined to be achieved. To demonstrate compliance on a more continuous basis, the owner or operator shall keep records of the type of adhesive applied, the date it is applied, and the VOC content in lb/gal, excluding water, as delivered to the applicator. These records shall be kept for a minimum period of 5 years, and made available to the Office of Air Quality upon request.

#### 326 IAC 6-3-2 (Process Operations):

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the vinyl, fiberglass, and luan machining process shall not exceed 1.83 pounds per hour when operating at a process weight rate of 0.30 tons/hr (600 lb/hr).

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour, and  
P = process weight rate in tons per hour (0.30 tons/hr)

The unrestricted potential to emit of PM (0.72 lb/hr) is less than the 326 IAC 6-3-2 limit of 1.83 lb/hr. Thus, compliance is determined to be achieved.

$$3.15 \text{ tons/yr} * 2000 \text{ lb/ton} * 1/8760 \text{ yr/hr} = 0.72 \text{ lb PM/hr}$$

### **326 IAC 6-3-2 (Process Operations):**

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the welding process shall not exceed 0.55 pounds per hour when operating at a process weight rate less than 100 pounds per hour.

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour, and  
P = process weight rate in tons per hour

The unrestricted potential to emit of PM (0.03 lb/hr) is less than the 326 IAC 6-3-2 limit of 0.55 lb/hr. Thus, compliance is determined to be achieved.

$$0.11 \text{ ton/yr} * 2000 \text{ lb/ton} * 1/8760 \text{ yr/hr} = 0.03 \text{ lb PM/hr}$$

### **Compliance Determination**

No stack testing shall be required because compliance with the PM limitations of 326 IAC 6-3-2 are achieved without the use of a control device or limits.

### **Compliance Requirements**

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

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

Pursuant to the "Title V Air Permit Compliance Monitoring Facts", issued on May 14, 1996, compliance monitoring and a preventive maintenance plan are required if the source emits particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), or volatile organic compounds (VOC), and if there are any units:

- (a) that are subject to a NSPS or NESHAP,
- (b) with a control device that has allowable emissions greater than 10 pounds per hour,

- (c) without a control device with actual emissions exceeding 25 tons per year, or
- (d) with limits that prevent an applicable requirement from applying.

There are no units associated with the proposed modification that are subject to a NSPS or NESHAP, have a control device that has allowable emissions greater than 10 pounds per hour, have no control device with actual emissions exceeding 25 tons per year, or have limits that prevent an applicable standard from applying. Thus, no compliance monitoring or preventive maintenance plan shall be required for any units of the proposed modification.

### Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in **bold**):

The Table of Contents shall be amended to include a new Section D.3 for the proposed wall manufacturing operation.

<b>D.3</b>	<b>FACILITY OPERATION CONDITIONS - RV Wall Panel Manufacturing Operation</b>	<b>29a</b>
	<b>Emission Limitations and Standards [326 IAC 2-7-5(1)]</b>	
<b>D.3.1</b>	<b>Particulate Matter (PM) [326 IAC 6-3-2(c)]</b>	<b>29a</b>
<b>D.3.2</b>	<b>VOC Content of Adhesives Applied to Vinyl [326 IAC 8-2-11]</b>	<b>29a</b>
	<b>Compliance Determination Requirements</b>	
<b>D.3.3</b>	<b>Testing Requirements [326 IAC 2-7-6(1)]</b>	<b>29a</b>
	<b>Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]</b>	
<b>D.3.4</b>	<b>Record Keeping Requirements</b>	<b>29a</b>

Condition A.2 shall be amended to include the units of the proposed wall manufacturing operation.

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

---

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

- (a) Thirty nine (39) stationary and hand-held wood cutting saws rated at a maximum throughput of 132,188 pounds per hour, particulate matter controlled by a cyclone separator and exhausting to stack identified as C-3 in plant 2;
- (b) Various aerosol cans and manual tube extrusion guns for coating recreational vehicles in the plant 1 and 2 with a maximum capacity of manufacturing three (3) recreational vehicles per hour, with no control for overspray. This assembly area was constructed prior to 1980.
- (c) **One (1) recreational vehicle wall panel manufacturing operation, including:**
  - (1) one (1) hot melt rollcoater, applying adhesives to vehicle wall panels with a maximum production rate of 60 panels per hour;**
  - (2) one (1) vinyl and luan machining process, including one (1) table saw and two (2) hand routers, machining one quarter inch luan, fiberglass, and vinyl at a maximum rate of 600 pounds per hour, with emissions controlled by baghouse 1, and emissions exhausted into the building;**



- (3) one (1) welding process, including one (1) metal inert gas (MIG) welder, welding trailer wall frames with a maximum wire consumption rate of 4.7 pounds per hour; and ten (10) natural gas fired space heaters, with a combined capacity of 1.6 MMBtu/hr.

A new Section D.3 shall be created including all applicable requirements.

### **SECTION D.3 FACILITY CONDITIONS**

**One (1) recreational vehicle wall panel manufacturing operation, including:**

- (a) one (1) hot melt rollcoater, applying adhesives to vehicle wall panels with a maximum production rate of 60 panels per hour;
- (b) one (1) vinyl, fiberglass, and luan machining process, including one (1) table saw and two (2) hand routers, machining one quarter inch luan, fiberglass, and vinyl at a maximum rate of 600 pounds per hour, with emissions controlled by baghouse 1, and emissions exhausted into the building;
- (c) one (1) welding process, including one (1) metal inert gas (MIG) welder, welding trailer wall frames with a maximum wire consumption rate of 4.7 pounds per hour; and
- (d) ten (10) natural gas fired space heaters, with a combined capacity of 1.6 MMBtu/hr.

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

##### **D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the welding process shall not exceed 0.55 lb/hr and the PM emissions from the luan, fiberglass, and vinyl machining process shall not exceed 1.83 lb/hr.

##### **D.3.2 VOC Content of Adhesives Applied to Vinyl [326 IAC 8-2-11]**

Pursuant to 326 IAC 8-2-11, the VOC content of the adhesive when applied to vinyl, shall be limited to 4.8 lb/gal, excluding water, as delivered to the applicator.

#### **Compliance Determination Requirements**

##### **D.3.3 Testing Requirements [326 IAC 2-7-6(1)]**

Testing of the units of the wall manufacturing operation is not specifically required by this permit. However, if the OAQ requests, compliance with the particulate matter (PM) limit specified in Condition D.3.1 shall be determined by a performance tests conducted in accordance with Section C - Performance Testing. This does not preclude testing requirements on this facility under 326 IAC 2-7-5 and 326 IAC 2-7-6.

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

##### **D.3.4 Record Keeping Requirements**

To document compliance with Condition D.3.2, the Permittee shall maintain copies of the most current Material Safety Data Sheets (MSDS) for all adhesives applied to vinyl by the hot melt rollcoater. Said MSDS shall be maintained at the source at all times the adhesives are utilized by the source.

**If the Permittee terminates use of an adhesive, the Permittee shall retain the MSDS for that adhesive for a minimum period of five (5) years after the date the adhesive is no longer used. After the five (5) year period, the Permittee may discard said MSDS.**

**All MSDS shall be made available to the Office of Air Quality upon request.**

#### **Conclusion**

The operation of this proposed modification shall be subject to the conditions of the attached proposed Title V minor permit modification T 039-14456-00306.