

**CONSTRUCTION PERMIT
OFFICE OF AIR MANAGEMENT**

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

is hereby authorized to construct a recreational vehicles manufacturing operation

- (a) Forty (40) natural gas fired space heaters, each rated at 0.30 million British thermal units per hour (MMBtu/hr), exhausting to stack identified as A-C of service building, E - K and M -W of plant 1 and 1, 2,6-11, 15 -18 and 21-27 of plant 2;
- (b) Thirty nine (39) stationary and hand-held wood working 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;
- (c) 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.

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

| | |
|---|----------------|
| Construction Permit No.: CP-039-9516-00306 | |
| Issued by: Paul Dubenetzky, Branch Chief Office of Air Management | Issuance Date: |

Skyline Corporation (Formerly Nomad / Layton - Elkhart)
Elkhart, Indiana
Permit Reviewer: Manoj P. Patel

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CP-039-9516
Plt ID-039-00306

Construction Conditions

General Construction Conditions

1. That the data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
2. That this permit to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

3. That pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.
4. That pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. That notwithstanding Construction Condition No. 6, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

First Time Operation Permit

6. That this document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:
 - (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
 - (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
 - (c) Permittee shall receive an Operational Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
 - (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).
 - (e) The Permittee has submitted their Part 70 application (T039-9115-00306) on October 16, 1997 for the existing source. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

7. That when the facility is constructed and placed into operation the following operation conditions shall be met:

Operation Conditions

General Operation Conditions

1. That the data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
2. That the permittee shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder.

Preventive Maintenance Plan

3. That pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:
 - (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing facilities and emission control device.
 - (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
 - (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

Transfer of Permit

4. That pursuant to 326 IAC 2-1-6 (Transfer of Permits):
 - (a) In the event that ownership of this recreational vehicles (RV) manufacturing operation is changed, the Permittee shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
 - (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.
 - (c) The OAM shall reserve the right to issue a new permit.

Permit Revocation

5. That pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:
 - (a) Violation of any conditions of this permit.

- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

Availability of Permit

6. That pursuant to 326 IAC 2-1-3(l), the Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by the IDEM or other public official having jurisdiction.

Malfunction Condition

7. That pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

Annual Emission Reporting

8. That pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee must annually submit an emission statement for the source. This statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual statement must be submitted to:

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

Indianapolis, Indiana 46206-6015

Opacity Limitations

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

- (a) visible emissions shall not exceed an average of forty percentage (40%) opacity in twenty-four (24) consecutive readings, as determined in 326 IAC 5-1-4.
- (b) visible emissions shall not exceed sixty-percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

10. That pursuant to 326 IAC 6-3 (Process Operations),

- (a) the cyclone separator shall be in operation at all times when the wood working saws are in operation.
- (b) The recreational vehicle assembly area shall comply with 326 IAC 6-3-2 (c) using the following equation:

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

Where: E = rate of emission in pounds per hour
P = Process weight in tons per hour
P is equal to or less than 60,000 lbs/hr (30 tons/hr)

- (c) The wood working saws operation shall comply with 326 IAC 6-3-2(c) using the following equation:

$$E = 55.0P^{0.11} - 40$$

where: E = rate of emission in pounds per hour,
P = process weight in tons per hour, if
P is greater than 60,000 lbs/hr (30 tons/hr).

Visible Emission Notations

11. That visible emission notations of the wood working saws stack (ID. C-3) exhaust shall be performed once per working shift. A trained employee shall record whether emissions are normal or abnormal.

- (a) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, 80% of the time, the process is in operation, not counting start up or shut down time.
- (b) In the case of batch or discontinuous operation, readings shall be taken during that part of the operation specified in the facility's specific condition prescribing visible emissions.
- (c) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal and abnormal visible emissions for that specific process.
- (d) The Preventive Maintenance Plan for this wood working saws operation shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Fugitive Dust Emissions

- 12. That pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), the permittee shall be in violation of 326 IAC 6-4 (Fugitive Dust Emissions) if any of the criteria specified in 326 IAC 6-4-2(1) through (4) are violated. Observations of visible emissions crossing the property line of the source at or near ground level must be made by a qualified representative of IDEM. [326 IAC 6-4-5(c)].

General Provisions Relating to VOC Rules

- 13. Pursuant to 326 IAC 8-1-2 (a) (7) (General Provisions Relating to VOC Rules),

- (a) The daily volume weighted VOC content and usage limitations contained in Condition D.2.2(a) of the coatings used for each day shall be determined by using the following equation:

$$\text{lb VOC /gal less water} = \frac{3 \text{ coats } \{ \text{density, lb./gal} * \text{wt. \% organics} * \text{gal of mat. Gal/unit} \} / \{ (1 - \% \text{ vol. water}) * \text{density coat, lb./gal} \}}{\text{density water, lb./gal}}$$

{ 3coats, gal unit}

- (b) IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Volatile Organic Compound (VOC) Limitations

- 14. That pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations),

- (a) the volatile organic compound (VOC) content of coatings applied to metals part of the recreational vehicles in the manufacturing area shall be limited to:

| Coatings | Limit (pounds of VOC/gallon of coating less water delivered to the applicator) |
|--------------------------|---|
| Extreme Performance Coat | 3.5 |

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

Volatile Organic Compound (VOC) Limitations

- 15. That pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet coating), the surface coatings applied to cabinet coating operation shall utilize one or more of the following application methods:

- | | |
|----------------------------------|--|
| Airless Spray Application | Air-Assisted Airless Spray Application |
| Electrostatic Spray Application | Electrostatic Bell or Disc Application |
| Heated Airless Spray Application | Roller Coating |
| Brush or Wipe Application | Dip-and-Drain Application |
| High Volume Low Pressure HVLP | Aerosol Spray Cans |

High volume low pressure spray is an acceptable alternative application of air-assisted airless spray. High volume low pressure (HVLP) spray means technology used to apply coating to a substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

Reporting Requirements

16. (a) To document compliance with operation Conditions 14, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in operation Condition 14.
- (1) The amount and VOC content of each coating material and solvent applied to metal parts of the recreational vehicles (RV). Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The volume weighted VOC content of the coatings used for each day;
 - (4) The cleanup solvent usage for each day;
 - (5) The total VOC usage for each day; and
 - (6) The weight of VOC emitted for each compliance period.
- (b) To document compliance with Condition 11, the Permittee shall maintain records of daily visible emission notations of the cyclone separator stack exhaust.

Open Burning

17. That the permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE: IT HAS POTENTIAL TO EMIT 25 LBS/HR PARTICULATES ? _____, 100 LBS/HR VOC ? _____, 100 LBS/HR SULFUR DIOXIDE ? _____ OR 2000 LBS/HR OF ANY OTHER POLLUTANT ? _____ EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ Skyline Corporation _____ PHONE NO. (219) 294 - 6521

LOCATION: (CITY AND COUNTY) _____ Elkhart, Elkhart County

PERMIT NO. **039-9516** AFS PLANT ID: 039-00306 AFS POINT ID: _____ INSP: _____

CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION:

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/19____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY:

TITLE: _____

(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

REV 3/96

FAX NUMBER - 317 233-5967

*SEE REVERSE

PAGE 1 OF 2

**Please note - This form should only be used to report malfunctions
applicable to Rule 326 IAC 1-6 and to qualify for
the exemption under 326 IAC 1-6-4.**

326 IAC 1-6-1 Applicability of rule

Sec. 1. The requirements of this rule (326 IAC 1-6) shall apply to the owner or operator of any facility which has the potential to emit twenty-five (25) pounds per hour of particulates, one hundred (100) pounds per hour of volatile organic compounds or SO₂, or two thousand (2,000) pounds per hour of any other pollutant; or to the owner or operator of any facility with emission control equipment which suffers a malfunction that causes emissions in excess of the applicable limitation.

326 IAC 1-2-39 “Malfunction” definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. (Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m. : 11 IR 2373)

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for New Construction and Operation

Source Background and Description

Source Name: Skyline Corporation (formerly Nomad / Layton - Elkhart)
 Source Location: 401 County Road 15 South, Elkhart, Indiana 46515
 County: Elkhart
 Construction Permit No.: CP-039-9516-00306
 SIC Code: 3792
 Permit Reviewer: Manoj P. Patel

The Office of Air Management (OAM) has reviewed an application from Skyline Corporation (Formerly Nomad /Layton-Elkhart) relating to the modification and operation of a recreational vehicles (RV) manufacturing plant, consisting of the following:

- (a) Forty (40) natural gas fired space heaters, each rated at 0.30 million British thermal units per hour (MMBtu/hr), exhausting to stack identified as A-C of service building, E - K and M -W of plant 1 and 1, 2,6-11, 15 -18 and 21-27 of plant 2;
- (b) Thirty nine (39) stationary and hand-held wood working 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;
- (c) 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.

This source is previously permitted by registration (ID # 039-4343-00306) issued on September 5, 1995, will be superseded by the proposed permit.

This proposed modification is included in the draft Part 70 Permit, and already has undergone public notification. However, due to the time constraint in issuing the Part 70 Permit, an administrative decision has been made to separate and issue a construction permit on this modification.

Stack Summary

| Stack ID | Operation | Height (feet) | Diameter (feet) | Flow Rate (acfm) | Temperature (°F) |
|----------|---------------|---------------|-----------------|------------------|------------------|
| A - C | Space Heaters | 20 | 0.50 | 400 | 300 |
| E - K | | 20 | 0.50 | 400 | 300 |
| M - W | | 24 | 0.50 | 400 | 300 |
| 1 | | 24 | 0.70 | 400 | 300 |
| 2 | | 24 | 0.70 | 400 | 300 |
| 6 - 11 | | 24 | 0.70 | 400 | 300 |
| 15 - 18 | | 24 | 0.70 | 400 | 300 |
| 21-27 | | 24 | 0.70 | 400 | 300 |
| C-3 | Woodworking | 20 | 1.5' x 1.5' | 5,500 | ambient |

Enforcement Issue

There is no enforcement issue pending with the source.

Recommendation

The staff recommends to the Commissioner that the modification and operation be approved. This recommendation is based on the following facts and conditions:

Information, unless otherwise stated, 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 October 16, 1997, with additional information received by phone on December 8, 1997 from Mr. David L. Whitmer, a consultant for the applicant.

Emissions Calculations

(A) Space Heaters in plant 1 & 2.

See Appendix C of TSD for detailed calculation.

| Heat Input Capacity: 12.0 MMBtu /hour | | | Potential Throughput: 105.1 MMCF / year | | | |
|---------------------------------------|------|------|---|-------|------|------|
| Pollutant | PM | PM10 | SO2 | NOx | VOC | CO |
| Emission Factor in lb /MMCF | 12.0 | 12.0 | 0.6 | 100.0 | 5.3 | 21.0 |
| Potential Emissions in tons/yr | 0.60 | 0.60 | 0.03 | 5.30 | 0.30 | 1.10 |

Methodology:

$$\text{Emission (tons /year)} = \text{Potential Throughput (MMCF/year)} \times \text{Emission Factor (lb/MMCF)} \times (1 \text{ ton} / 2000 \text{ lb})$$

(B) RV Manufacturing Operation:

See Appendix A of TSD for the volatile organic compounds (VOC) and particulate matter emissions from the recreational vehicles manufacturing operation at the plant 1 & 2.

See Appendix B of TSD for the Hazardous Air Pollutants (HAPs) emissions from the recreational vehicles manufacturing operation in the plant 1 & 2.

(C) Wood working Operation:

As per the information provided in the construction permit application, this facility remains unchanged from CP # 039-4343 as amended by A # 039-4583, except that cyclone D in plant 1 has been disconnected and the wood cutting machinery moved to plant 2 and exhausting through cyclone 3.

The particulate matter emissions from the saw dust collection process operations are controlled by a cyclone dust collector, exhausting to stack 3.

For the purpose of the PM calculation, data submitted in the construction permit application submitted in 1995 used.

Amount of Sawdust Collected from the cyclone $E = E_c = 3.36$ tons/year
 This dust collected was based on the 2000 actual hours of the facility operation.
 Sawdust based on the 8,760 hours of operation $= 8,760 \times (3.36 / 2,000)$
 $= 14.72$ tons/year

Cyclone Efficiency $= n = 80\%$
 Amount of Sawdust at the inlet $= E_i$
 Amount of Sawdust at the outlet $= E_o$

Potential Particulate Matter (PM) emissions (E_o):

Wood Dust at the inlet of the Cyclone (E_i) = Total Wood Dust Collected (E_c) + Total Saw Dust emitted (E_o)

$$\begin{aligned} E_o &= E_c (1/n-1) \\ &= 14.72 (1/0.8-1) \\ &= 3.68 \text{ tons/year} \end{aligned}$$

$$\begin{aligned} \text{Uncontrolled PM emissions } (E_i) &= E_o + E_c \\ &= (3.68 + 14.72) \text{ tons/year} \\ &= 18.40 \text{ tons/year} \end{aligned}$$

| SUMMARY OF EMISSIONS | | | | | |
|----------------------|----------------------|-------------|------------------|---------------------------------------|-----------------------------------|
| Pollutants | Operations / Process | | | Uncontrolled Emissions in tons / year | Controlled Emissions in tons/year |
| | Space Heaters | Woodworking | RV Manufacturing | | |
| PM | 0.60 | 18.40 | 0.70 | 19.70 | 3.40 |
| PM-10 | 0.60 | 18.40 | 0.70 | 19.70 | 3.40 |
| SO ₂ | 0.03 | 0.0 | 0.0 | 0.03 | 0.03 |
| VOC | 0.30 | 0.0 | 93.90 | 94.20 | 94.20 |
| CO | 1.10 | 0.0 | 0.0 | 1.10 | 1.10 |
| NO _x | 5.30 | 0.0 | 0.0 | 5.30 | 5.30 |
| HAP- single | 0.0 | 0.0 | 40.0 | 40.0 | 40.0 |
| Total HAPS | 0.0 | 0.0 | 59.50 | 59.50 | 59.50 |

Total Potential and Allowable Emissions

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760

hours of operation per year at rated capacity):

| Pollutant | Allowable Emissions (tons/year) | Potential Emissions (tons/year) |
|---|------------------------------------|------------------------------------|
| Particulate Matter (PM) | 301 | 19.70 |
| Particulate Matter (PM10) | 301 | 19.70 |
| Sulfur Dioxide (SO ₂) | 0.03 | 0.03 |
| Volatile Organic Compounds (VOC) | 94.20 | 94.20 |
| Carbon Monoxide (CO) | 1.10 | 1.10 |
| Nitrogen Oxides (NO _x) | 5.30 | 5.30 |
| Single Hazardous Air Pollutant (HAP) - Toluene | 40.0 | 40.0 |
| Combination of HAPs | 59.50 | 59.50 |

- (a) Allowable emissions are determined from the applicability of rule 326 IAC 6-3.

Woodworking Operation: (P =66.10 ton/hr)

$$\begin{aligned}
 E &= 55.0 P^{0.11-40} \\
 &= 55.0 (66.10)^{0.50-40} \\
 &= 47.21 \text{ lb/hr} \\
 &= 206.80 \text{ ton/year}
 \end{aligned}$$

Where:

$$\begin{aligned}
 E &= \text{Allowable PM emissions, lb/hr} \\
 P &= \text{Process Weight rate, ton/hr} \\
 &= 66.10 \text{ ton/hr}
 \end{aligned}$$

- (2) RV Manufacturing: (P= 12.0 ton/hr)

$$\begin{aligned}
 E &= 4.10 P^{0.67} \\
 &= 4.10 (12.0)^{0.67} \\
 &= 21.70 \text{ lb/hr} \\
 &= 95.0 \text{ ton/yr}
 \end{aligned}$$

Where:

$$\begin{aligned}
 E &= \text{Allowable PM emissions, lb/hr} \\
 P &= \text{Process Weight rate, ton/hr} \\
 &= 12.0 \text{ ton/hr}
 \end{aligned}$$

- (b) The potential emissions after control are less than the allowable emissions, therefore, the potential emissions after control are used for the permitting determination.
- (c) Allowable emissions (as defined in the Indiana Rule) of Volatile Organic Compounds (VOC) are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

- (d) Allowable emissions (as defined in the Indiana Rule) of a single hazardous air pollutant (HAP) are greater than 10 tons per year and the allowable emissions of any combination of the HAPs are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, a construction permit is required.

County Attainment Status

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

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

| Pollutant | Emissions (ton/yr) |
|-----------------|--------------------|
| PM | 4.40 |
| PM10 | 4.40 |
| SO ₂ | 0.03 |
| VOC | 13.80 |
| CO | 1.85 |
| NO _x | 7.35 |

- (a) This existing source is **not** a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on the registration (R# 039-4343-00306) issued to the source on September 5, 1995.

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

| Pollutant | PM (ton/yr) | PM10 (ton/yr) | SO ₂ (ton/yr) | VOC (ton/yr) | CO (ton/yr) | NO _x (ton/yr) |
|-----------|-------------|---------------|--------------------------|--------------|-------------|--------------------------|
| | | | | | | |

| | | | | | | |
|-----------------------|------|------|-----|------|-----|-----|
| Proposed Modification | 0.70 | 0.70 | 0.0 | 94.0 | 0.0 | 0.0 |
| PSD Threshold Level | 250 | 250 | 250 | 250 | 250 | 250 |

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

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 (T039-9115-00306) application on as a construction permit application on October 16, 1997. This proposed modification is included in the draft Part 70 permit, and already has undergone public notification. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (326 IAC 12) 40 CFR Part 60 applicable to this source.
- (b) 40 CFR Part 63, Subpart JJ, (National Emission Standards for Wood Furniture Manufacturing Operations)

This Woodworking operation is not covered by 40 CFR Part 63, Subpart JJ (National Emission Standards for Wood Furniture Manufacturing Operations), because this source is not engage in manufacturing of any product made of wood, a wood product such as ratten or wicker, or an engineered wood product such as particle board, and wood furniture components such as drawer sides, cabinet doors, seat cushions, laminated tops.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of volatile organic compounds (VOC) and is located in Elkhart county. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

- (a) Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4,
- (b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total

of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

State Rule Applicability - Individual Facilities

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

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the recreational vehicle manufacturing plant shall be limited to 3.5 pounds of VOC per gallon of coating less water, for extreme performance coatings.

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

Based on the MSDS submitted by the source and calculations made, the recreational vehicle manufacturing plant is in compliance with this requirement.

326 IAC 8-1-2 (General Provisions Relating to VOC Rules)

Pursuant to 326 IAC 8-1-2 (a) (7)(General Provision Relating to VOC Rules), a daily volume - weighted average of gallons solids coating and VOC content of each coating shall be maintained and made available upon request. The records of daily emissions in pounds VOC shall be maintained and made available upon request.

$$\text{lb VOC /gal less water} = \frac{3 \text{ coats } \{ \text{density, lb./gal} * \text{wt. \% organics} * \text{gal of mat. Gal/unit} \} / \{ (1 - \% \text{ vol. water}) * \text{density coat, lb./gal} \}}{\text{density water, lb./gal}}$$

{ 3coats, gal unit}

326 IAC 6-3-2 (Process Operations)

(a) The particulate matter (PM) from the recreational vehicle manufacturing operation shall be limited to 21.70 pounds per hour using the following equation:

Interpolation and extrapolation 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:

$$\begin{aligned} E &= 4.10 P^{0.67} & \text{where } E &= \text{rate of emission in pounds per hour and} \\ &= 4.10 (12.0)^{0.67} & P &= \text{process weight rate in tons per hour} \\ &= 21.70 \text{ lbs./hr} \end{aligned}$$

(b) The particulate matter (PM) from the wood cutting saws operation shall be limited to 47.20 pounds per hour by using the following equation:

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

$$\begin{aligned} E &= 55.0 P^{0.11} - 40 & \text{where } E &= \text{rate of emission in pounds per hour;} \\ &= 55.0 (66.10)^{0.11} - 40 & P &= \text{process weight rate in tons per hour} \\ &= 47.20 \text{ lbs./hr} \end{aligned}$$

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

Pursuant to 326 8-2-12 (Wood Furniture and Cabinet Coating), The permittee shall apply all coating material, with the exception of no more than ten (10) gallons of coating per day used for the touch-up and repair operations, using one (1) or more of the following application systems: airless spray application system, air-assisted airless spray application system, electrostatic spray application system, electrostatic bell or disc application system, heated airless spray application system, roller coat, brush or wipe application system or dip-and-drain application system. A stain is applied by a hand wipe application to the closet cabinets to dress up the cut edge, it complies with this rule.

326 IAC 2-1-3.4 (New Source Toxic Control)

326 IAC 2-1-3.4 (New Source Toxic Control) does not apply to various aerosol cans and manual tube extrusion guns for coating recreational vehicles in the plant 1 and 2, because this is an existing facility and the modification is for the formulation of coatings only. Since, it is not a new facility, this rule does not applicable.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 189 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) This proposed modification will emit levels of air toxics greater than those that constitute major source applicability according to Section 112 of the Clean Air Act.
- (b) See attached spreadsheets (Appendix B of this TSD) for detailed air toxic calculations.

Conclusion

The construction of this recreational vehicle (RV) manufacturing operation will be subject to the conditions of the attached proposed **Construction Permit No. CP-039-9115-00306.**

Appendix B: HAP emissions Calculation

(from SKyline RV Plant)

Company Name: Skyline Corporation
Plant Location: 401 County Road 15 South Plant, Elkhart, IN 46515
County: 039-9516
Plt. ID: 039-00306
Permit Reviewer: Manoj P. Patel
Date: December 8, 1997

| Material | Density (Lb/Gal) | Gal of Mat (gal/unit) | Maximum (unit/hour) | % Hexane | Weight % Xylene | Weight % MEK | % Toluene | % E.G. | Weight % Perc | Weight % TCE | Weight % E. Benze | % M.C. | Hexane (ton/yr) | Xylene (ton/yr) | MEK (ton/yr) | Toluene (ton/yr) | E.G. (ton/yr) | Perc (ton/yr) | TCE (ton/yr) | E. Ben. (ton/yr) | M.C. (ton/yr) | |
|------------------------------|------------------|-----------------------|---------------------|----------|-----------------|--------------|-----------|--------|---------------|--------------|-------------------|--------|-----------------|-----------------|--------------|------------------|---------------|---------------|--------------|------------------|---------------|------|
| Oately Cleaner | 6.614 | 0.039 | 3.0 | | | 0.95 | | | | | | | | | 3.22 | | | | | | | |
| Oately CPVC Cement | 7.589 | 0.016 | 3.0 | | | 0.05 | | | | | | | | | 0.08 | | | | | | | |
| Sun #99 Adhesive | 12.093 | 0.950 | 3.0 | | | | | | | | | | | | | | | | | | | |
| Dicor 502 Adhesive | 10.675 | 0.449 | 3.0 | | | | 0.16 | | | | | | | | | 9.95 | | | | | | |
| Henry's 924 Adhesive | 8.000 | 1.125 | 3.0 | | | | | | | | | | | | | | | | | | | |
| PL-400 Adhesive | 9.591 | 0.276 | 3.0 | 0.30 | | | 0.15 | | | | | | 10.43 | | | 5.22 | | | | | | |
| Weld-On 773 ABS Cement | 7.231 | 0.063 | 3.0 | | | 0.65 | | | | | | | | | 3.89 | | | | | | | |
| Colorimetric MS-101 Sealant | 8.006 | 0.008 | 3.0 | | 0.23 | | | | | | 0.05 | | | 0.19 | | | | | | | 0.04 | |
| Colorimetric MS-102 Sealant | 8.008 | 0.523 | 3.0 | | | | 0.40 | | | | | | | | | 22.01 | | | | | | |
| Hercules Pro Dope | 13.427 | 0.039 | 3.0 | | | | | | | | | | | | | | | | | | | |
| Geocell 500 Caulk | 13.344 | 0.188 | 3.0 | | | | | | | | | | | | | | | | | | | |
| Rectoseal # 5 Pipe Dope | 11.425 | 0.004 | 3.0 | | | | | | | | | | | | | | | | | | | |
| Armstrong S553 Seam Sealer | 7.589 | 0.001 | 3.0 | | | | | | | | | | | | | | | | | | | |
| Sun # 41 Underlayment Sealer | 9.174 | 0.327 | 3.0 | | | | | | | | | | | | | | | | | | | |
| Mineral Spirits | 6.430 | 0.004 | 3.0 | | | | | | | | | | | | | | | | | | | |
| C-32 Break Cleaner | 12.010 | 0.001 | 3.0 | | | | | | 0.40 | 0.30 | | 0.30 | | | | | | 0.06 | 0.05 | | | 0.05 |
| Goof-Off | 7.250 | 0.003 | 3.0 | | 0.92 | | | | | | | | | 0.26 | | | | | | | | |
| Terp-A-Kleen | 7.014 | 0.211 | 3.0 | | | | | | | | | | | | | | | | | | | |
| WD-40 | 6.700 | 0.001 | 3.0 | | | | | | | | | | | | | | | | | | | |
| C-33 Silicone Spray | 5.921 | 0.004 | 3.0 | | | | | | | | | | | | | | | | | | | |
| C-34 White Grease | 6.670 | 0.004 | 3.0 | 0.37 | | | | | | | | | 0.13 | | | | | | | | | |
| Boyle-Midway Wood Putty | 11.676 | 0.004 | 3.0 | | | | | | | | | | | | | | | | | | | |
| Color Putty | 11.500 | 0.002 | 3.0 | | | | | | | | | | | | | | | | | | | |
| Rapid-Tac | 9.000 | 0.004 | 3.0 | | | | | | | | | | | | | | | | | | | |
| Leak Detector | 8.665 | 0.016 | 3.0 | | | | | 0.43 | | | | | | | | | 0.79 | | | | | |
| 735 Undercoat | 8.300 | 0.004 | 3.0 | | | | 0.15 | | | | | | | | | 0.07 | | | | | | |
| S-W Enamel | 8.070 | 0.020 | 3.0 | | | | | | | | | | | | | | | | | | | |
| R-W Spray Paint | 8.980 | 0.004 | 3.0 | | | | | | | | | | | | | | | | | | | |
| Stain | 10.800 | 0.047 | 3.0 | | 0.06 | | 0.40 | | | | | | | 0.39 | | 2.67 | | | | | | |
| Dicor 901 Adhesive | 8.398 | 1.429 | 3.0 | | | | | | | | | | | | | | | | | | | |

Total State Potential Emissions

10.56 0.85 7.19 39.91 0.79 0.06 0.05 0.04 0.05

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

Individual HAP: Toluene: **39.91** ~40.00 t/y
 Total HAPs: **59.50** ~ 59.50 t/y

Appendix C: Emission Calculations

Natural Gas Combustion Only

MM Btu/hr 0.3 - < 10

Space Heaters at plant #1 & #2

Company Name: Skyline Corporation

Address City IN Zip: 401 County Road 15 South Plant, Elkhart, IN 46515

CP: 039-9516

Plt ID: 039-00306

Reviewer: Manoj P. Patel

Date: December 8, 1997

Heat Input Capacity*
MMBtu/hr

Potential Throughput
MMCF/yr

12.0

105.1

Pollutant

| | PM | PM10 | SO2 | NOx | VOC | CO |
|-------------------------------|------|------|------|-------|-----|------|
| Emission Factor in lb/MMCF | 12.0 | 12.0 | 0.6 | 100.0 | 5.3 | 21.0 |
| Potential Emission in tons/yr | 0.6 | 0.6 | 0.03 | 5.3 | 0.3 | 1.1 |

Space Heaters - total of 40 space heaters, each rated at 0.30 MMBtu/hr, (IDs. A-C , E-K, M-W) of plant #1 & 1,2,6-11, 15-18, 21-27 of plant #2.

Methodology

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

Emission Factors for CO: uncontrolled = 21, Low NOx Burner = 27, Flue gas recirculation = ND

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

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

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

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

**Company Name: Skyline Corporation
Address City IN Zip: 401 County Road 15 South Plant, Elkhart, IN 46515
CP: 039-9516
Plt ID: 039-00306
Reviewer: Manoj P. Patel
Date: December 8, 1997**

| Material | Density (Lb/Gal) | Weight % Volatile (H2O& Organics) | Weight % Water | Weight % Organics | Volume % Water | Volume % Non-Vol (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 |
|------------------------------|------------------|-----------------------------------|----------------|-------------------|----------------|---------------------------|-----------------------|---------------------|---|----------------------------------|-------------------------------|------------------------------|-----------------------------|------------------------------|--------------------|---------------------|
| Oately Cleaner | 6.614 | 100.00% | 95.0% | 5.0% | 95.0% | 0.00% | 0.03900 | 3.000 | 6.61 | 0.33 | 0.04 | 0.93 | 0.17 | 0.00 | ERR | 0% |
| Oately CPVC Cement | 7.589 | 81.00% | 0.0% | 81.0% | 0.0% | 17.00% | 0.01600 | 3.000 | 6.15 | 6.15 | 0.30 | 7.08 | 1.29 | 0.00 | 36.16 | 100% |
| Sun # 99 Adhesive | 12.093 | 0.00% | 0.0% | 0.0% | 0.0% | 100.00% | 0.95000 | 3.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100% |
| Dicor 502 Adhesive | 10.675 | 25.00% | 0.0% | 25.0% | 0.0% | 70.00% | 0.44900 | 3.000 | 2.67 | 2.67 | 3.59 | 86.28 | 15.75 | 0.00 | 3.81 | 100% |
| Henry's 924 Adhesive | 8.000 | 35.00% | 32.0% | 3.0% | 32.0% | 65.00% | 1.12500 | 3.000 | 0.35 | 0.24 | 0.81 | 19.44 | 3.55 | 0.00 | 0.37 | 100% |
| PL-400 Adhesive | 9.591 | 45.00% | 0.0% | 45.0% | 0.0% | 60.00% | 0.27600 | 3.000 | 4.32 | 4.32 | 3.57 | 85.77 | 15.65 | 0.00 | 7.19 | 100% |
| Weld-On 773 ABS Cement | 7.231 | 75.00% | 0.0% | 75.0% | 0.0% | 21.00% | 0.06300 | 3.000 | 5.42 | 5.42 | 1.02 | 24.60 | 4.49 | 0.00 | 25.83 | 100% |
| Colorimetric MS-101 Sealant | 8.006 | 27.50% | 0.0% | 27.5% | 0.0% | 72.00% | 0.00800 | 3.000 | 2.20 | 2.20 | 0.05 | 1.27 | 0.23 | 0.00 | 3.06 | 100% |
| Colorimetric MS-102 Sealant | 8.008 | 40.00% | 0.0% | 40.0% | 0.0% | 58.00% | 0.52300 | 3.000 | 3.20 | 3.20 | 5.03 | 120.62 | 22.01 | 0.00 | 5.52 | 100% |
| Hercules Pro Dope | 13.427 | 0.00% | 0.0% | 0.0% | 0.0% | 100.00% | 0.03900 | 3.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100% |
| Geocell 500 Caulk | 13.344 | 2.00% | 0.0% | 2.0% | 0.0% | 100.00% | 0.18800 | 3.000 | 0.27 | 0.27 | 0.15 | 3.61 | 0.66 | 0.00 | 0.27 | 100% |
| Rectoseal # 5 Pipe Dope | 11.425 | 23.00% | 0.0% | 23.0% | 0.0% | 77.00% | 0.00400 | 3.000 | 2.63 | 2.63 | 0.03 | 0.76 | 0.14 | 0.00 | 3.41 | 100% |
| Armstrong S553 Seam Sealer | 7.589 | 92.00% | 0.0% | 92.0% | 0.0% | 6.00% | 0.00100 | 3.000 | 6.98 | 6.98 | 0.02 | 0.50 | 0.09 | 0.00 | 116.36 | 100% |
| Sun # 41 Underlayment Sealer | 9.174 | 0.00% | 0.0% | 0.0% | 0.0% | 100.00% | 0.32700 | 3.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100% |
| Mineral Spirits | 6.430 | 100.00% | 0.0% | 100.0% | 0.0% | 0.00% | 0.00400 | 3.000 | 6.43 | 6.43 | 0.08 | 1.85 | 0.34 | 0.00 | ERR | 0% |
| C-32 Break Cleaner | 12.010 | 100.00% | 30.0% | 70.0% | 30.0% | 0.00% | 0.00100 | 3.000 | 12.01 | 8.41 | 0.03 | 0.61 | 0.11 | 0.00 | ERR | 100% |
| Goof-Off | 7.250 | 100.00% | 0.0% | 100.0% | 0.0% | 0.00% | 0.00300 | 3.000 | 7.25 | 7.25 | 0.07 | 1.57 | 0.29 | 0.00 | ERR | 100% |
| Terp-A-Kleen | 7.014 | 100.00% | 0.0% | 100.0% | 0.0% | 0.00% | 0.21100 | 3.000 | 7.01 | 7.01 | 4.44 | 106.56 | 19.45 | 0.00 | ERR | 100% |
| WD-40 | 6.700 | 100.00% | 0.0% | 100.0% | 0.0% | 0.00% | 0.00100 | 3.000 | 6.70 | 6.70 | 0.02 | 0.48 | 0.09 | 0.00 | ERR | 100% |
| C-33 Silicone Spray | 5.921 | 100.00% | 0.0% | 100.0% | 0.0% | 0.00% | 0.00400 | 3.000 | 5.92 | 5.92 | 0.07 | 1.71 | 0.31 | 0.00 | ERR | 100% |
| C-34 White Grease | 6.670 | 80.00% | 12.0% | 68.0% | 14.0% | 20.00% | 0.00400 | 3.000 | 5.27 | 4.54 | 0.05 | 1.31 | 0.24 | 0.00 | 22.68 | 100% |
| Boyle-Midway Wood Putty | 11.676 | 40.00% | 30.0% | 10.0% | 30.0% | 60.00% | 0.00400 | 3.000 | 1.67 | 1.17 | 0.01 | 0.34 | 0.06 | 0.00 | 1.95 | 100% |
| Color Putty | 11.500 | 0.00% | 0.0% | 0.0% | 0.0% | 100.00% | 0.00200 | 3.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.30 | 0.00 | 0% |
| Rapid-Tac | 9.000 | 100.00% | 0.0% | 100.0% | 0.0% | 0.00% | 0.00400 | 3.000 | 9.00 | 9.00 | 0.11 | 2.59 | 0.47 | 0.00 | ERR | 100% |
| Leak Detector | 8.665 | 100.00% | 55.5% | 44.5% | 55.0% | 0.00% | 0.01600 | 3.000 | 8.57 | 3.86 | 0.19 | 4.44 | 0.81 | 0.00 | ERR | 100% |
| 735 Undercoat | 8.300 | 70.00% | 0.0% | 70.0% | 0.0% | 60.00% | 0.00400 | 3.000 | 5.81 | 5.81 | 0.07 | 1.67 | 0.31 | 0.07 | 9.68 | 50% |
| S-W Enamel | 8.070 | 45.40% | 0.0% | 45.4% | 0.0% | 54.60% | 0.02000 | 3.000 | 3.66 | 3.66 | 0.22 | 5.28 | 0.96 | 0.29 | 6.71 | 75% |
| R-W Spray Paint | 8.990 | 85.20% | 0.0% | 85.2% | 0.0% | 14.80% | 0.00400 | 3.000 | 7.65 | 7.65 | 0.09 | 2.20 | 0.40 | 0.02 | 51.70 | 75% |
| Stain | 10.800 | 90.00% | 0.0% | 90.0% | 0.0% | 10.00% | 0.04700 | 3.000 | 9.72 | 9.72 | 1.37 | 32.89 | 6.00 | 0.00 | 97.20 | 100% |
| Dicor 901 Adhesive | 8.398 | 60.00% | 60.0% | 0.0% | 60.0% | 40.00% | 1.42900 | 3.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100% |
| | 0.000 | 0.00% | 0.0% | 0.0% | 0.0% | 0.00% | 0.00000 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | ERR | 0% |
| | 0.000 | 0.00% | 0.0% | 0.0% | 0.0% | 0.00% | 0.00000 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | ERR | 0% |

State Potential Emissions

21.43 514.34 93.87 0.67

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)

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for Part 70 Operating Permit and Enhanced New Source Review (ENSR)

Source Name: Skyline Corporation (Formerly Nomad / Layton - Elkhart)
Source Location: 401 County Road 15 South, Elkhart, Indiana 46515
County: Elkhart
SIC Code: 3792
Construction Permit No.: 039-9516-00306
Permit Reviewer: Manoj P. Patel

On January 2, 1998, the Office of Air Management (OAM) had a notice published in the Elkhart Truth, Elkhart, Indiana, stating that Skyline Corporation (Formerly Nomad / Layton - Elkhart) had applied for a Part 70 Operating Permit to operate a stationary recreational vehicle (RV) manufacturing plant. The notice also stated that OAM proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Skyline elected to have IDEM issue the new source review (NSR) permit separately from the Part 70 permit due to the constraints of the permitting rules' time limits. Skyline has originally submitted their construction permit application and converted into the Part 70 permit application on October 16, 1997. This permit will be incorporated into the Part 70 permit. For the permit tracking purpose, this construction permit has assigned a new permit number (CP# 039-9516-00306) while the Part 70 permit will keep the original permit number (T039-9115-00306).

On January 22, 1998, Mr. David L. Whitmer of Derolf Environmental Consulting Agency, Inc. on behalf of the Skyline Corporation submitted comments on the proposed Part 70 permit. The summary of the comments is as follows:

Comment 1:

Please include all the insignificant activities claimed in form GSD-10a of the application.

Response to Comment 1:

The rule that requires the inclusion of insignificant activities for any specific rule applies to the Title V permits. The source does have insignificant activities and OAM has included all of them in the technical support document (TSD). There are no specific rules that apply toward these insignificant activities specified in the TSD and Section A.3 (Specifically Regulated Insignificant Activities), page 5 of 32 in the draft permit clearly specifies that this stationary source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21) that have applicable requirements. Therefore, Section A.3 remains unchanged due to this comment.

Comment 2:

Condition C.7 (Asbestos Abatement Projects) and C.12 (Asbestos Abatement Projects) , page 19 and 20 of 33 in the draft Part 70 permit should be removed. This source does not contain any asbestos of any description, and therefore is not subject to this requirement.

Response to Comment 2:

326 IAC 14-10 requires a thorough inspection of the affected facility or part of the facility by an Indiana accredited asbestos inspector. It is unlikely that a source would find it cost-effective to have an entire property thoroughly inspected for asbestos. A thorough inspection includes analysis of any material that may contain asbestos. This could include cement walls, linoleum floor covering and counter tops, ceiling and wall panels, roofing, pipe wrap, and more. In addition, there would be no assurance that no asbestos-containing material has been added since the inspection. Many materials currently on the market are legally allowed to contain asbestos. Finally, asbestos-containing material that was determined at one time to be non-friable may deteriorate with time and become friable. In general, if an area has been inspected within the past 3 years by an Indiana-accredited inspector and was determined at that time to be free of asbestos, then an additional inspection is not required. This condition is required under the Clean Air Act for every permitted source. There will be no changes to this condition in the final permit, due to this comment.

Comment 3:

Condition C.9 Performance Testing, page 19 of 33 in the draft Part 70 permit should be removed. There are no requirements for testing applicable to this source. Condition C.15 Actions Related to Noncompliance Demonstrated by a Stack Test, page 22 of 33 in the draft Part 70 permit should be removed.

Response to Comment 3:

In the Condition D.2.5 (a), OAM clearly stated that OAM reserves the authority to determine compliance using the Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4. In that case, testing must be conducted in accordance with 326 IAC 3-2.1 (source sampling Procedures). Therefore, Condition C.9 and C.15 remain unchanged and a new section D.2.4 (Testing Requirements) has been added. No testing is being required of this source at this time; this is specifically added in the final permit in Condition D.2.4 under Compliance Determination requirements. Condition D.2.4 (Testing requirements) for the Page 25 of 31 in the final permit is clarified as follows:

D.2.4 Testing Requirements [326 IAC 2-7-6(1)]

Testing of this facility is not specifically required by this permit. However, if the OAM requests, compliance with the volatile organic compounds (VOC) limit specified in Condition D.2.2 (a) 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.

Comment 4:

Condition C.10 Maintenance of Monitoring Equipment, page 20 of 33 in the draft Part 70 permit should be removed. There is no monitoring equipment required by this permit.

Response to Comment 4:

For the woodcutting saws operation compliance monitoring, Skyline Corporation does not require any monitoring except Visible Emission Notations. Therefore, proposed Condition C.10 is not applicable and

has been removed. Subsequent conditions have been renumbered accordingly.

Comment 5:

Condition C.13 Risk Management Plan, Page 21 of 33 in the draft Part 70 permit should be removed. Skyline does not have any regulated substances in quantities in excess of the threshold quantities and therefore is not required to comply with C.13(a) and (b) until such time it does have such material in such quantities on this property.

Response to Comment 5:

Proposed Condition C.13 Risk Management Plan, is deleted and a final permit has been changed accordingly. Subsequent conditions have been renumbered accordingly.

Comment 6:

Condition C.16(b) (renumbered as C.14) Emission Statement, Page 23 of 33 in the draft Part 70 Permit should be change to read as follows:

"The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31 of that year."

Response to Comment 6:

Pursuant to 326 IAC 2-6-3 (Emission Reporting), the owner or operator of any facility falling within the applicability guidelines set forth in section 1 of the 326 IAC 2-6 rule must annually submit an emission statement to the commissioner. This submittal must be received by the department each year by April 15 for those sources covered by section 1(a) of 326 IAC 2-6. There will be no change due to this comment.

Comment 7:

Condition C.18 (a) (renumbered as C.16) General Record Keeping Requirements, Page 24 of 33 in the draft Part 70 permit should be rewritten to read as:

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

It is unlikely that any organization (including OAM) could produce three years worth of any types of records in one hour upon anyone's verbal request. This unauthorized paraphrasing of the rule would impose an excessive burden upon Skyline Corporation.

Response to Comment 7:

Condition D.1.6 and D.2.8 requires that records necessary to document compliance with Condition D.1.5, D.2.2(a) be kept at the source for a period of three (3) years, and then stored elsewhere for the next two (2) years provided the records can be made available within thirty (30) days after written request. Because the most recent three years worth of records must be kept at the source, it is reasonable to assume that such records can be produced within a short time frame when OAM staff requests such data. In OAM's experience, practical requests for compliance related records can be made available within one (1) hour.

Comment 8:

Condition C.18(b) and C.18(c), (renumbered as C.16) General Record Keeping Requirements, Page 24 of 33 in the draft Part 70 permit should be removed.

Response to Comment 8:

This condition provides guidelines for records of preventive maintenance and response steps. 326 IAC 2-7-6(1) requires each Part 70 permit to contain compliance certification, testing, monitoring, reporting, and record keeping requirements sufficient to assure compliance with the terms and conditions of a Part 70 permit consistent with section 5(3) of the Part 70 permit program rule. In addition, 326 IAC 2-7-6(5)(B) requires Part 70 permits to include a means for monitoring the compliance of the source with its standards and work practices, in accordance with section 5(3). Therefore, a rule cite for 326 IAC 2-7-6 has been added to the title line for Condition C.21 on page 24 of 38 of the proposed permit to be as follows on page 22 of 31 of the final permit:

C. 16 General Record Keeping Requirements [326 IAC 2-7-5(3)(B)] [326 IAC 2-7-6]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location and available within one (1) hour upon verbal request of an IDEM, OAM, representative, for a minimum of three (3) years. They may be stored elsewhere for the remaining two (2) years providing they are made available within thirty (30) days after written request.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts

inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

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

Comment 9:

Condition C.18 (renumbered as C.16) General Record Keeping Requirements, Page 25 of 33 in the draft Part 70 permit should include a clause that states:

" Instead of paper records, Skyline Corporation may contain records on alternative media, such as microfilm, computer files, magnetic tape disks or microfiche, provided that the use of such alternative media allows for expeditious inspection and review."

Response to Comment 9:

326 IAC 2-7 does not restrict the media used for record keeping. By not specifically listing alternative media, the source is allowed to use the suggested alternative without being restricted to them. The condition will remain unchanged due to this comment.

Comment 10:

Condition C.20 (renumbered as C.18) Compliance with 40 CFR 82 and 326 IAC 22-1, Page 26 of 33 in the draft Part 70 permit should be removed. These regulations do not apply to this source. Inclusion of such a condition will only serve to confuse the public and OAM or EPA compliance personnel.

Response to Comment 10:

40 CFR 82 regulates the handling of ozone-depleting substances such as Freon in a variety of processes and products including domestic and commercial refrigeration and air-conditioning units and portable fire extinguishers. Most sources include one or more subject units. Maintenance or repair of such units has the potential to release substances controlled under this rule. The U.S. EPA has requested that this condition be in every Title V permit. The condition will remain unchanged.

Comment 11:

Condition D.1.3 (Testing Requirements), Page 27 of 33 in the draft Part 70 permit should be deleted. This emission unit is not required to perform any testing.

Response to Comment 11:

Condition D.1.3 clearly states that the testing of this facility is not specifically required by this permit. But in the future, if OAM feels that a test is required for particulate matter (PM) limitations specified in Condition D.1.1, then the test must be performed. Condition D.1.3 will not be deleted.

Comment 12:

Condition D.1.4 (Particulate Matter (PM)), Page 27 of 33 in the draft Part 70 permit should be removed. This condition is unreasonable and unnecessary. The saws used at Skyline Corporation mainly create particulate larger than 100 micron in diameter. If the cyclone were not operating, there would still not be emissions of particulate in excess of the limitation of Condition D.1.1.

Response to Comment 12:

There was no test performed to prove that particulate matter (PM) are bigger than 100 microns in diameter. OAM believes that Conditions D.1.4 is necessary because some of it may be less than 100 microns in diameter. Therefore, this condition will not be deleted.

Comment 13:

Condition D.1.5 and D.1.6 (Visible Emissions Notations and Record Keeping), page 27 and 28 of 33 in the draft Part 70 permit should be removed. As the potential emissions are less than the allowable emissions, there is no possibility of violating Condition D.1.1 and therefore no necessity for Condition D.1.5 and D.1.6.

Response to Comment 13:

The observation of abnormal visible emissions indicates that the source may not be operating in a manner that is consistent with the information used to determine compliance with opacity and PM emission limitations. Responding to this abnormal situation can provide information that can be used to provide an assurance that the compliance status has not been significantly affected. To determine compliance with rule 326 IAC 6-3-2 (Process Operations: Particulate Emission Limitations), visible emission notation and record keeping are necessary. Therefore, this condition will not be deleted.

Comment 14:

Condition D.2.4 (Preventive Maintenance Plan), Page 29 of 33 in the draft Part 70 permit should be removed. There is no volatile organic compounds (VOC) emission control equipment present.

Response to Comment 14:

The requirement to maintain a Preventive Maintenance Plan is applicable to any facility that is required by 326 IAC 2-1-2 (Registration) and 326 IAC 2-1-4 (Operating Permits), to obtain a permit. Any preventive maintenance that is performed on the facilities in question should be listed in the Preventive Maintenance Plan. A Preventive Maintenance Plan (PMP) is required for facilities emitting particulate matter (PM), oxides of sulfur (SO₂), or volatile organic compound (VOC) with existing applicable requirements and :

- (a) a NSPS or NESHAP applies; or
- (b) the unit has a control device and the allowable emissions exceed 10 pounds per hour; or
- (c) the unit does not have controls and the actual emissions exceed 25 tons per year; or
- (d) the unit would have been subject to an applicable requirement if there was not a condition limiting the potential to emit.

The surface coating facility in plants 1 and 2 has potential VOC emissions of 93.90 tons per year when operating 8,760 hours per year. In the permit application, the applicant has assumed that the actual operation schedule for each facilities to be 8,760 hours for the permitting purpose. Using the operating time

of 8,760 hours per year, the actual emissions are greater than 25 tons of VOC per year. Based on these calculations, Condition D.2.4 will be written as follows:

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Comment 15:

Condition D.2.6 (Monitoring), Page 30 of 33 in the draft Part 70 permit should be removed.

Response to Comment 15:

Condition D.2.6 (Monitoring) clearly states that the additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan (PMP). Since the Preventive Maintenance Plan is required for the facility, this condition is necessary. Therefore, the proposed Condition D.2.6 will not be removed from the draft permit.

Comment 16:

Condition D.2.5(a) (Volatile Organic Compounds), Page 30 of 33 in the draft Part 70 permit, contains Condition D.2.8 but the permit ends with condition D.2.7. Skyline Corporation presumes that IDEM actually meant to refer to Condition D.2.7.

Response to Comment 16:

In the condition D.2.6 (Volatile Organic Compounds), IDEM refers to the Condition D.2.2(a) and Permit is changed as follows:

D.2.6 Volatile Organic Compounds (VOC)

~~(a) Compliance with the VOC content and usage limitations contained in Conditions D.2.8 shall be determined pursuant to 326 IAC 8-1-2(a)(7) using formulation data supplied by the coating manufacturer.~~

(a) The daily volume weighted VOC content **and usage limitations contained in Condition D.2.2 (a)** of the coatings used for each day shall be determined by using the following equation:

$$\text{lb VOC /gal less water} = \frac{3 \text{ coats } \{ \text{density, lb./gal} * \text{wt. \% organic} * \text{gal of mat. Gal/unit} \}}{\{(1 - \% \text{ vol. water}) * \frac{\text{density coat, lb./gal}}{\text{density water, lb./gal}}\}}$$

{ 3coats, gal unit}

(b) **IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.**

Comment 17:

In Condition D.2.7(now renumbered as D.2.7) (a), Record Keeping Requirements, Page 30 of 33 in the draft Part 70 permit, remove the reference of Condition D.2.3 from the first sentence. The effect of

Condition D.2.3 is to preclude the use of air atomization spray guns. All spraying is done using aerosol cans which use an airless spray process. Condition D.2.7 (a) (1) should refer to metal substrate instead of each coating material. This change in the language clarifies that requirement.

Response to Comment 17:

Condition D.2.6 (renumbered as D.2.6) in the Draft permit has been changed as follows:

D.2.6 Record Keeping Requirements

- (a) To document compliance with Conditions D.2.2 (a) ~~and D.2.3~~, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.2.2(a) ~~;~~ ~~D.2.3~~.
- (1) The amount and VOC content of each coating material and solvent **applied to metal parts of the recreational vehicles (RV) used**. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The volume weighted VOC content of the coatings used for each day;
 - (4) The cleanup solvent usage for each day;
 - (5) The total VOC usage for each day; and
 - (6) The weight of VOC emitted for each compliance period.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Skyline Corporation (Formerly Nomad / Layton - Elkhart)
Elkhart, Indiana
Permit Reviewer: Manoj P. Patel

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