



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant
DATE: January 25, 2007
RE: Skyline Corporation, Plant 111 / 039-21507-000308
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot 03/23/06



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 Commissioner

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 Indianapolis, Indiana 46204-2251
 (317) 232-8603
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MINOR SOURCE OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

Skyline Corporation, Plant 111 1209 South Division Street Bristol, Indiana 46507

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

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 039-21507-00308	
Issued by: <i>Original document signed by</i> Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: January 25, 2007 Expiration Date: January 25, 2012



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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates stationary manufactured home production plant.

Authorized Individual: Division Manager
Source Address: 1209 South Division Street, Bristol, Indiana 46507
Mailing Address: P.O. Box 217, Bristol, Indiana 46507
Phone Number: (574) 848-7621
SIC Code: 2451
County Location: Elkhart
County Status: Nonattainment for ozone under the 8-hour standard
Attainment for all other criteria pollutants
Source Status: Minor Source Operating Permit
Minor Source under PSD and Emission Offset

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

The Main Building operations are as follows:

- (a) One (1) woodworking shop constructed in 1978, equipped with various wood cutting saws with a maximum capacity of 1.0 floor per hour controlled by one (1) cyclone exhausting outside the building through Stack No. 2.
- (b) One (1) gypsum operation, constructed in 1978, using various saws with a maximum capacity of 1.0 floor per hour vented to a baghouse dust collector, then vented internally.
- (c) One (1) framing operation, identified as Step 1 in manufactured home assembly, constructed in 1978, using caulks, sealants, cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floor per hour.
- (d) One (1) roofing operation, identified as Step 2, in manufactured home assembly, constructed in 1978, using caulks, sealants cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floor per hour.
- (e) One (1) finishing operation, identified as Step 3, in manufactured home assembly, constructed in 1978, using caulks, sealants cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floor per hour.
- (f) Twenty-nine (29) natural gas space heaters, heated at a total of 4.9 million British thermal units (MMBtu) per hour, exhausting at twenty-nine (29) stacks identified as Stacks 3 through 31.

The Pole Building operations are as follows:

- (a) One (1) Pole Building, constructed in 2002, equipped with two (2) airless air assisted spray guns for interior coating of wood walls for the manufactured homes, with a maximum capacity of 1.0 floor per hour, exhausting out the general building vent which does not have any control.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, MSOP 039-21507-00308, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue,
Indianapolis, 46204-2251
- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to MSOP 039-21507-00308 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.13 Permit Renewal [326 IAC 2-6.1-7]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least ninety (90) days prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

- (a) Permit amendments and revision are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.15 Source Modification Requirement

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.16 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2] [IC13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.18 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.19 Credible Evidence [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Standards and Limitations [326 IAC 2-6.1-5(a)(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to 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 this article.

C.3 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.5 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

- (g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-9.1-5(a)(2)]

C.7 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date. . The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

Compliance Monitoring Requirements

C.9 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.10 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

Corrective Actions and Response Steps

C.11 Response to Excursions or Exceedances

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records;
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.12 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected emissions unit while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that re-testing in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the re-testing deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to non-compliant stack tests.

The response action documents submitted pursuant to this condition do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements 326 IAC 2-6.1-5(a)(2)]

C.13 Malfunctions Report [326 IAC 1-6-2]

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 Quality (OAQ) 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 OAQ, 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]

C.14 General Record Keeping Requirements [326 IAC 2-6.1-5]

-
- (a) Records of all required monitoring data, reports and support information required by this permit 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 physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
 - (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

C.15 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

-
- (a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management

Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, any report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

Facility Description:

The Main Building operations are as follows:

- (a) One (1) woodworking shop constructed in 1978, equipped with various wood cutting saws with a maximum capacity of 1.0 floor per hour controlled by one (1) cyclone exhausting outside the building through Stack No. 2.
- (b) One (1) gypsum operation, constructed in 1978, using various saws with a maximum capacity of 1.0 floor per hour vented to a baghouse dust collector, then vented internally.
- (c) One (1) framing operation, identified as Step 1 in manufactured home assembly, constructed in 1978, using caulks, sealants, cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floor per hour.
- (d) One (1) roofing operation, identified as Step 2, in manufactured home assembly, constructed in 1978, using caulks, sealants cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floor per hour.
- (e) One (1) finishing operation, identified as Step 3, in manufactured home assembly, constructed in 1978, using caulks, sealants cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floor per hour.
- (f) Twenty-nine (29) natural gas space heaters, heated at a total of 4.9 million British thermal units (MMBtu) per hour, exhausting at twenty-nine (29) stacks identified as Stacks 3 through 31.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.1.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2(e)]

Pursuant to 326 IAC 6-3-2(e) (Manufacturing Processes), the allowable particulate emission rate from the woodworking facilities shall not exceed 12.1 pounds per hour when operating at a process weight rate of 10,000 pounds per hour. The pound per hour limitation was calculated with the following equation:

Interpolation 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

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this emissions unit and any control devices.

Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.3 Particulate Control

- (a) In order to comply with Condition D.1.1, the cyclone and baghouse for particulate control shall be in operation at all times when the wood working and gypsum operations are being conducted.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.4 Visible Emission Notations

- (a) Visible emission notations of the cyclone Stack No. 2 exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) 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 visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.1.5 Baghouse Inspections

An inspection each calendar quarter of all bags controlling the gypsum operation may be performed. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.1.6 Cyclone Inspections

An inspection shall be performed each calendar quarter of the cyclone controlling the woodworking operation when venting to the atmosphere. An inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors.

D.1.7 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately

until the failed unit has been repaired or replaced.

- (b) For a single compartment baghouses controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the woodworking or gypsum operations.

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.8 Record Keeping Requirements

- (a) To document compliance with Condition D.1.4, the Permittee shall maintain records of visible emissions for the woodworking exhaust once per day or when the visible emissions notation were not taken and the reason for it.

- (b) To document compliance with Conditions D.1.5 and D.1.6, the Permittee shall maintain records of the results of the inspections required under Condition D.1.5 and 1.6 and the dates the vents are redirected.

- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2

EMISSIONS UNIT OPERATION CONDITIONS

Facility Description:

The Pole Building operations are as follows:

- (a) One (1) Pole Building, constructed in 2002, equipped with two (2) airless air assisted spray guns for interior coating of wood walls for the manufactured homes, with a maximum capacity of 1.0 floor per hour, exhausting out the general building vents which does not have any control.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.2.1 Particulate Emissions Limitations, Work Practices and Control Technologies (Surface Coating) [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d) Particulate Emissions Limitations, Work Practices and Control Technologies (Surface Coating),

- (1) Operate the coating operation inside the building.
- (2) Spray coat only the interior of the homes being manufactured.
- (3) If accumulations of spray are observed on fans, stacks or on the ground outside the modular unit; then overspray controls must be installed.
- (4) Proper work practices as follows: Maintain and operate the airless air assisted spray guns according to the manufacturer's recommendations.

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

The VOC content of the coatings used in the Pole Building surface coating shall be less than twenty-five (25) tons per 12 consecutive month period. Therefore, the requirement of 326 IAC 8-1-6 (New Facilities and General Reduction Requirements) does not apply.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.3 Record Keeping Requirements

- (a) The Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken annually and shall be complete and sufficient to establish compliance with the VOC content established in Condition D.2.2.

- (1) The amount of VOC content of each coating material and solvent used. Records shall include purchase orders, invoices and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents, and

- (2) The total VOC usage for each year.

- (b) All records shall be maintained in accordance with Section C – General Record Keeping Requirements.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**MINOR SOURCE OPERATING PERMIT (MSOP)
CERTIFICATION**

Source Name: Skyline Corporation, Plant 111
Source Address: 1209 South Division Street, Bristol, Indiana 46507
Mailing Address: P.O. Box 217, Bristol, Indiana 46507
MSOP No.: 039-21507-00308

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- Annual Compliance Notification
- Test Result (specify) _____
- Report (specify) _____
- Notification (specify) _____
- Affidavit (specify) _____
- Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

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

**MINOR SOURCE OPERATING PERMIT RENEWAL
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Skyline Corporation, Plant 111
Address:	1209 South Division Street
City:	Bristol, Indiana 46507
Phone #:	(574) 848-7621
MSOP #:	039-21507-00308

I hereby certify that Skyline Corporation, Plant 111 is

still in operation.

I hereby certify that Skyline Corporation, Plant 111 is

no longer in operation.

in compliance with the requirements of MSOP 039-21507-00308

not in compliance with the requirements of MSOP 039-21507-00308

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317-233-0178**

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 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. 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: _____ PHONE NO. () _____

LOCATION: (CITY AND COUNTY) _____

PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____

CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/20____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/20____ 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: _____

*SEE PAGE 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. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

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.

***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 Quality**

Technical Support Document (TSD) for a
Minor Source Operating Permit Renewal

Source Background and Description

Source Name:	Skyline Corporation, Plant 111
Source Location:	1209 South Division Street, Bristol, Indiana 46507
County:	Elkhart
SIC Code:	2451
Operation Permit No.:	039-12326-00308
Operation Permit Issuance Date:	October 30, 2000
Permit Renewal No.:	039-21507-00308
Permit Reviewer:	Gail McGarrity

The Office of Air Quality (OAQ) has reviewed an application from Skyline Corporation, Plant 111 relating to the operation of a manufactured home production plant.

Permitted Emission Units and Pollution Control Equipment

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

- (a) One (1) woodworking shop, constructed in 1978, equipped with various wood cutting saws, with a maximum capacity of 1.0 floor per hour controlled by one (1) cyclone exhausting outside the building through Stack No. 2.
- (b) One (1) gypsum operation constructed in 1978, using various saws with a maximum capacity of 1.0 floor per hour vented to a baghouse dust collector, then vented internally.
- (c) One (1) framing operation, identified as Step 1 in manufactured home assembly, constructed in 1978, using caulks, sealants cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floor per hour.
- (d) One (1) roofing operation, identified as Step 2 in manufactured home assembly, constructed in 1978, using caulks, sealants, cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floors per hour.
- (e) One (1) finishing operation, identified as Step 3 in manufactured home assembly, constructed in 1978, using caulks, sealants, cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floor per hour.
- (f) One (1) Pole Barn, constructed in 2002, equipped with two (2) airless air assisted spray guns for interior coating of wood walls for the manufactured homes, with a maximum capacity of 1.0 floor per hour, exhausting out the general building vent which does not have any control.
- (g) Twenty-nine (29) natural gas space heaters, heated at a total of 4.9 million British thermal units (MMBtu) per hour, exhausting at twenty-nine (29) stacks identified as Stacks 3 through 31.

Unpermitted Emission Units and Pollution Control Equipment

The source has no unpermitted emission units at the time of this review.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

No new construction activities are included in this permit.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) MSOP 039-12326-00308, issued October 30, 2000
- (b) First Significant Permit Revision 039-14382-00308, issued September 26, 2001
- (c) First Notice Only Change 039-15768-00308, issued June 27, 2002
- (d) Second Notice Only Change 039-19080-00308, issued June 15, 2004
- (e) All conditions from previous approvals were incorporated into this permit, except the following:
- (f) First Significant Permit Revision 039-14382-00308, issued September 26, 2001.

Condition D.4.1 Particulate Matter (PM) [326 IAC 6-3-2(c) The PM from the use of the two (2) air assisted airless spray guns shall not exceed the pounds per hour emission rate established as E in the following formula:

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

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission pounds per hour;}$$

and
P = process weight rate in tons per hour

Reason not incorporated: On June 12, 2002, revisions to 326 IAC 326 IAC 6-3-2(c) (Process Operations) became effective. The rule citation particulate from surface coating is now 326 IAC 6-3-2(d) Particulate Emission Limitations, Work Practices and Control Technologies (Surface Coating). Condition D.4.1 has been removed from the permit and a new condition now D.2.1 has been added to the permit which incorporates the 326 IAC 6-3 revisions that became effective on June 12, 2002. The surface coating emissions are controlled by work practice standards.

Section D.3 Description Box (d) and Condition D.3.1: Record Keeping Requirements

Description D.3(d) Facility is also using caulks, sealants, cleaners and other miscellaneous VOC containing materials to assemble manufactured homes for a maximum of one and one-half (1.5) floors per hour.

Condition D.3.1: Record Keeping Requirements

- (1) The Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken annually and shall be complete and sufficient to establish compliance with the VOC content emission limits established in Conditions D.1.2.
 - (A) The amount of VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents; and
 - (B) The total VOC usage for each year.
- (2) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Reason not incorporated: These materials have been in use since operations began in 1971, before the applicability date of January 1, 1980 for 326 IAC 8-1-6, so even if they exceed 25 tons of VOC, the source will not be subject to 326 IAC 8-1-6. Reference to using caulks, sealants, cleaners and other miscellaneous VOC containing materials has been included in emission unit descriptions (c), (d) and (e).

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
2	Woodworking saws	30 above ground	4	5500	ambient
3-31	Gas Space Heaters	16-25 above ground	0.5	400 each	300

Enforcement Issues

There are no enforcement actions pending.

Recommendation

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

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

An application for the purposes of this review was received on July 1, 2005.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A pages 1 through 11). Pages 10 and 11 are directly from MSOP 039-12326, issued September 30, 2000 and pages 1 through 9 are revised to reflect changes in surface coatings.

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 or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	93.97
PM10	94.17
SO ₂	0.01
VOC	57.92
CO	1.8
NO _x	2.1
Most significant HAPs	2.459
Total HAPs	4.997

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants are less than 100 tons per year (PM10 is the criteria pollutant considered under 326 IAC 2-7 not PM). Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM and PM10 are less than 100 tons per year each and greater than 25 tons per year; therefore, the source is subject to the provisions of 326 IAC 2-6.1.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2002 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	0.00
PM ₁₀	0.00
PM 2.5	0.00
VOC	2.35
SO ₂	0.00
NO _x	0.00

Pollutant	Actual Emissions (tons/year)
CO	0.00

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM 2.5	attainment or unclassifiable
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
8-hour Ozone	nonattainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) Elkhart County has been classified as attainment or unclassifiable for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.
- (c) Elkhart County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the 1-hour ozone standard in Indiana. Effective October 25, 2006, 326 IAC 1-4-1 has been revised revoking the 1-hour ozone standard in Indiana.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, total emissions identified in this permit 039-21507-00308, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

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

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit for this source.

- (b) 326 IAC 20-14-1 (40 CFR 63 Subpart JJ - Wood Furniture Manufacturing Operation) is not included in this permit for the source, because this source is not major for HAPs.
- (c) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in this permit for this source.

State Rule Applicability - Entire Source

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

This source is not subject to the requirements of 326 IAC 2-4.1, because the potential to emit (PTE) of:

- (a) A single hazardous pollutant (HAP) is less than 10 tons per year.
- (b) Any combination of HAPs is less than 25 tons per year.

State Rule Applicability - Individual Facilities

Wood working and gypsum operations

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

The particulate from the woodworking and gypsum operations shall be limited by the following:

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

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

For Skyline Corporation Plant 111, the allowable particulate emissions rate is 12.1 pounds per hour for a process rate of 10,000 pounds (5 tons) per hour.

The cyclone and baghouse shall be in operation at all times the woodworking and gypsum operations are being conducted, in order to comply with this limit.

326 IAC 8-11-3 (Wood Furniture Coating)

This source is not subject to the requirements of 326 IAC 8-11-3, because this source only applies surface coating to the interior wood and gypsum walls of manufactured homes and not to the wood furniture.

Framing, Roofing and Finishing Operations

326 IAC 8-1-6 Volatile Organic Compounds (VOC)

The framing operation, identified as Step 1, roofing operation, identified as Step 2 and finishing operation, identified as Step 3 in manufactured home assembly, constructed in 1978, using caulks, sealants, cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floors per hour are not subject to the requirements of 326 IAC 8-1-6, because these operations were constructed before January 1, 1980.

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

This source is not subject to the requirements of 326 IAC 8-2-12 because this rule applies to wood furniture and cabinet coating. There are no coatings applied to cabinets, as the cabinets are pre stained or vinyl wrapped. The rest of the wood in the product that receives coatings is structural wood and not subject to this rule.

Pole Barn (Surface Coating)

326 IAC 6-3-2(d) Particulate Emission Limitations, Work Practices and Control Technologies (Surface Coating)

- (1) Operate the coating operation inside the building.
- (2) Spray coat only the interior of the homes being manufactured.
- (3) If accumulations of spray are observed on fans, stacks or on the ground outside the modular unit; then overspray controls must be installed.
- (4) Proper work practices as follows: Maintain and operate the airless air assisted spray guns according to the manufacturer's recommendations.

326 IAC 8-1-6 Volatile Organic Compounds (VOC)

Pursuant to Significant Permit Revision 039-14382-00308, issued September 26, 2001, the VOC usage in the Pole Barn surface coating operation shall be less than twenty-five (25) tons per 12 consecutive month period. Therefore, the requirements of 326 IAC 8-1-6 (BACT) do not apply.

However, records are required to be maintained for the Pole Barn surface coating operation to verify that use does not trigger the applicability of 326 IAC 8-1-6.

Compliance Monitoring and Prevention Maintenance Plan

- (a) Inspections of the woodworking and gypsum operations baghouse and cyclone are required, because the Permittee chose the option to inspect the baghouse and cyclone in lieu of parametric monitoring.
- (b) Visible emission notations of the cyclone Stack No. 2 exhaust shall be performed daily.

Conclusion

The operation of this manufactured homes production plant shall be subject to the conditions of the attached proposed MSOP Renewal 039-21507-00308.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Minor Source Operating Permit Renewal

Source Name:	Skyline Corporation, Plant 111
Source Location:	1209 South Division Street, Bristol, Indiana 46507
County:	Elkhart
SIC Code:	2451
Operation Permit No.:	039-12326-00308
Operation Permit Issuance Date:	October 30, 2000
Permit Renewal No.:	039-21507-00308
Permit Reviewer:	Gail McGarrity

On December 20, 2006, the Office of Air Quality (OAQ) had a notice published in The Elkhart Truth, Elkhart, Indiana, stating that Skyline Corporation, Plant 111 had applied for a Minor Source Operating Permit Renewal to operate a manufactured home production plant. The notice also stated that OAQ 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.

Written comments were received from Jim Euler of DECA on behalf of Skyline Corporation on January 10, 2007. These comments and IDEM, OAQ responses, including changes to the permit (where language deleted is shown with ~~strikeout~~ and the added is shown in **bold**) are as follows:

Comment 1

Change the descriptions at Plant 111 to refer to the buildings as Main Building and Pole Building.

Response to Comment 1

The descriptions in Section A.2, Sections D.1 and D.2 description boxes, Condition D.2.2 and the reference to Pole Barn in the Table of Contents are revised as follows:

Section A.2

The Main Building operations are as follows:

- (a) One (1) woodworking shop constructed in 1978, equipped with various wood cutting saws with a maximum capacity of 1.0 floor per hour controlled by one (1) cyclone exhausting outside the building through Stack No. 2.
- (b) One (1) gypsum operation, constructed in 1978, using various saws with a maximum capacity of 1.0 floor per hour vented to a baghouse dust collector, then vented internally.
- (c) One (1) framing operation, identified as Step 1 in manufactured home assembly, constructed in 1978, using caulks, sealants, cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floor per hour.

- (d) One (1) roofing operation, identified as Step 2, in manufactured home assembly, constructed in 1978, using caulks, sealants cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floor per hour.
- (e) One (1) finishing operation, identified as Step 3, in manufactured home assembly, constructed in 1978, using caulks, sealants cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floor per hour.
- ~~(g)~~(f) Twenty-nine (29) natural gas space heaters, heated at a total of 4.9 million British thermal units (MMBtu) per hour, exhausting at twenty-nine (29) stacks identified as Stacks 3 through 31.

The Pole Building operations are as follows:

- ~~(f)~~(a) One (1) Pole barn **Building** constructed in 2002, equipped with two (2) airless air assisted spray guns for interior coating of wood walls for the manufactured homes, with a maximum capacity of 1.0 floor per hour, exhausting out the general building vent which does not have any control.

Section D.1 Description Box

Facility Description:

The Main Building operations are as follows:

- (a) One (1) woodworking shop constructed in 1978, equipped with various wood cutting saws with a maximum capacity of 1.0 floor per hour controlled by one (1) cyclone exhausting outside the building through Stack No. 2.
- (b) One (1) gypsum operation, constructed in 1978, using various saws with a maximum capacity of 1.0 floor per hour vented to a baghouse dust collector, then vented internally.
- (c) **One (1) framing operation, identified as Step 1 in manufactured home assembly, constructed in 1978, using caulks, sealants, cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floor per hour.**
- (d) **One (1) roofing operation, identified as Step 2, in manufactured home assembly, constructed in 1978, using caulks, sealants cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floor per hour.**
- (e) **One (1) finishing operation, identified as Step 3, in manufactured home assembly, constructed in 1978, using caulks, sealants cleaners and other miscellaneous VOC containing materials for a maximum of 1.0 floor per hour.**
- ~~(g)~~(f) **Twenty-nine (29) natural gas space heaters, heated at a total of 4.9 million British thermal units (MMBtu) per hour, exhausting at twenty-nine (29) stacks identified as Stacks 3 through 31.**

Section D.2 Description Box

Facility Description:

The Pole Building operations are as follows:

- (#)(a) One (1) Pole ~~barn~~ **Building**, constructed in 2002, equipped with two (2) airless air assisted spray guns for interior coating of wood walls for the manufactured homes, with a maximum capacity of 1.0 floor per hour, exhausting out the general building vents which does not have any control.

Condition D.2.2

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

The VOC content of the coatings used in the Pole ~~barn~~ **Building** surface coating shall be less than twenty-five (25) tons per 12 consecutive month period. Therefore, the requirement of 326 IAC 8-1-6 (New Facilities and General Reduction Requirements) does not apply.

**Appendix A: Emissions Summary
Total Potential Emissions**

**Company Name: Skyline Corporation, Plant 111
Address City IN Zip: 1209 S. Division Street, Bristo, Indiana 46507
MSOP Renewal: 039-21507-00308
Reviewer: Gail McGarrity
Date: 1-Dec-06**

Operation	PM (tons/yr)	PM10 (tons/yr)	VOC (tons/yr)	HAPS (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	CO (tons/yr)
Surface Coating Pole Barn	80.09	80.09	13.96	1.632			
Sawdust/gypsum framing	1.45	1.45	12.85	2.073			
roofing	12.02	12.02	26.18	0.011			
finishing	0.41	0.41	4.83	1.281			
combustion		0.2	0.1		0.01	2.1	1.80
Total	93.97	94.17	57.92	4.997	0.01	2.10	1.80

Operation	Xylene (tons/yr)	Toluene (tons/yr)	Hexane (tons/yr)	Methanol (tons/yr)	Glycol Ethers (tons/yr)	Ethyl Benzene (tons/yr)	Other HAPS (tons/yr)	HAPS (tons/yr)
surface coating							1.632	1.632
framing	0.008	1.704	0.357			0.004		2.073
roofing	0.011							0.011
finishing	0.016	0.755		0.200	0.310			1.281
Total HAPS	0.035	2.459	0.357	0.200	0.310	0.004	1.632	4.997

Methodology

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

Appendix A: Emissions Calculations

VOC and Particulate

From Surface Coating Operations in Pole Building

constructed in 2002

Company Name: Skyline Corporation, Plant 111

Address City IN Zip: 1209 S. Division Street, Bristol, Indiana 46507

MSOP Renewal : 039-21507-00308

Reviewer: Gail McGarrity

Date: 1-Dec-06

Material Paint Booth	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
ICI/Glidden White Paint 1210-0100	11.58	49.55%	47.29%	2.3%	65.49%	31.36%	7.97100	1.000	0.76	0.26	2.09	50.07	9.14	50.99	0.83	75%
ICI/Glidden I070 - 1200 Prep & Prime	11.31	45.97%	43.73%	2.2%	59.35%	54.03%	4.34800	1.000	0.62	0.25	1.10	26.44	4.82	29.09	0.47	75%
Potential Emissions											3.19	76.50	13.96	80.09		
METHODOLOGY																
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)																
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)																
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)																
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)																
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)																
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)																
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)																
Total = Worst Coating + Sum of all solvents used																

Appendix A: Emission Calculations										
HAP Emission Calculations										
Surface Coating										
Company Name:		Skyline Corporation, Plant 111								
Address City IN Zip:		1209 S. Division Street, Bristol, Indiana 46507								
MSOP Renewal :		039-21509-00308								
Reviewer:		Gail McGarrity								
Date:		1-Dec-06								
Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % 1,2- Ethanediol	Weight % Vinyl Acetate Monomer	Weight % Acetaldehyde	1,2-Ethanediol Emissions (ton/yr)	Vinyl Acetate Monomer Emissions (ton/yr)	Acetaldehyde Emissions (ton/yr)	Total HAPS (tons/yr)
ICI/Glidden White Paint 1210-0110	11.58	7.79110	1.000	0.387%	0.013%	0.013%	1.529	0.051	0.051	1.632
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										

Emission Calculations
PM/PM10 Emissions
Woodworking and Gypsum Operations
Constructed in 1978

Company Name: Skyline Corporation, Plant 111
Address City IN Zip: 1209 South Division Street, Bristol IN 46507
MSOP Renewal: 039-21507-00308
Reviewer: Gail McGarrity
Date: September 25, 2006

PM/PM₁₀ Control Equipment: Baghouse
Grain Loading: 0.004 grains/acf
Air Flow Rate: 1900 acfm
Control Efficiency: 80%

PTE After Controls:

Hourly PM/PM10 Emissions = $0.004 \text{ gr/acf} \times 1900 \text{ acf/min} \times 60 \text{ min/hr} \times 1/7000 \text{ lb/gr} = 0.07 \text{ lb/hr}$
Annual PM/PM10 Emissions = $0.07 \text{ lb/hr} \times 8760 \text{ hr/yr} \times 1/2000 \text{ lb/ton} = 0.29 \text{ ton/yr}$

PTE Before Controls:

Hourly PM/PM10 Emissions = $0.07 \text{ lb/hr} / (1-80\%) = 0.35 \text{ lb/hr}$
Annual PM/PM10 Emissions = $0.29 \text{ ton/yr} / (1-80\%) = 1.45 \text{ ton/yr}$

VOC and Particulate
From Framing Operations
Constructed 1978

Company Name: Skyline Corporation, Plant 111
Address City IN Zip: 1209 S. Division Street, Briarcliff, Indiana 46507
Permit Number: 039-21507-00308
Reviewer: Gail McGarrity
Date: 1-Dec-06

Material Framing Assembly Step 1	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Sun #59-10 Skyline Wood Glue	9.58	70.00%	70.0%	0.0%	70.0%	30.00%	1.67000	1.000	0.00	0.00	0.00	0.000	0.00	0.00	0.00	100%
Geocel Duraseal Tub/tile Chaulk	9.10	36.50%	34.7%	1.8%	34.7%	63.50%	0.06300	1.000	0.25	0.16	0.01	0.248	0.05	0.00	0.26	100%
Geocel Stainmatch Caulk	13.35	18.00%	16.3%	1.8%	16.3%	82.00%	0.42000	1.000	0.28	0.23	0.10	2.355	0.43	0.00	0.28	100%
Oatey ABS Cement	7.41	67.60%	0.0%	67.6%	0.0%	22.40%	0.15000	1.000	5.01	5.01	0.75	18.033	3.29	0.00	22.36	100%
HBF Bronze Butyl Chaulk SC-0288	10.52	22.00%	0.0%	22.0%	0.0%	78.00%	0.01000	1.000	2.31	2.31	0.02	0.555	0.10	0.00	2.97	100%
Red Devil White Wall Grout	16.66	15.00%	13.8%	1.2%	13.8%	85.00%	0.03600	1.000	0.23	0.20	0.01	0.173	0.03	0.00	0.24	100%
FOMO P10083 HandiFoam	6.66	100.00%	100.0%	0.0%	100.0%	0.00%	0.08000	1.000	#DIV/0!	0.00	0.00	0.000	0.00	0.00	#DIV/0!	100%
Ener 42 Foam	10.33	0.00%	0.0%	0.0%	0.0%	100.00%	0.13000	1.000	0.00	0.00	0.00	0.000	0.00	0.00	0.00	100%
Oatey Flowguard Gold CPVC Cement	8.00	51.10%	0.0%	51.1%	0.0%	48.90%	0.09800	1.000	4.09	4.09	0.40	9.615	1.75	0.00	8.36	100%
Wilsonart Lockweld 500 Adhesive	6.61	75.00%	35.0%	40.0%	40.0%	20.00%	0.14000	1.000	4.41	2.64	0.37	8.884	1.62	0.00	13.22	100%
TACC MH24000 Adhesive	10.84	39.46%	38.6%	0.9%	38.6%	60.54%	0.31000	1.000	0.16	0.10	0.03	0.726	0.13	0.00	0.16	100%
Alpha PS100 Adhesive	9.40	0.00%	0.0%	0.0%	0.0%	100.00%	1.45000	1.000	0.00	0.00	0.00	0.000	0.00	0.00	0.00	100%
Franklin Floor AHB Adhesive	8.41	33.80%	33.7%	0.1%	33.7%	66.20%	0.10000	1.000	0.01	0.01	0.00	0.02	0.00	0.00	0.01	100%
Alpha Pemco 1983 Cleaner	7.92	100.00%	0.0%	100.0%	0.0%	0.00%	0.09400	1.000	7.92	7.92	0.74	17.868	3.26	0.00	#DIV/0!	100%
Oatey Clear PVC Cement	7.54	88.00%	27.2%	60.8%	27.2%	12.00%	0.00200	1.000	6.30	4.58	0.01	0.220	0.04	0.00	38.20	100%
Rectorseal #100	11.00	0.00%	0.0%	0.0%	0.0%	100.00%	0.00200	1.000	0.00	0.00	0.00	0.000	0.00	0.00	0.00	100%
Kampel Seamfill 901	9.16	68.25%	20.0%	48.3%	20.0%	27.90%	0.00200	1.000	5.52	4.42	0.01	0.212	0.04	0.00	15.84	100%
Wilsonart Lockweld 110	6.11	100.00%	27.84%	72.16%	27.84%	0.00%	0.09400	1.000	6.11	4.41	0.41	9.947	1.82	0.00	#DIV/0!	100%
Rectorseal # 5 Pipe Dope	11.50	30.00%	0.0%	30.0%	0.0%	70.00%	0.00800	1.000	3.45	3.45	0.03	0.662	0.12	0.00	4.93	100%
Geocel 1001 Painter's Chaulk	14.19	14.50%	14.5%	0.0%	14.5%	85.50%	0.15000	1.000	0.00	0.00	0.00	0.000	0.00	0.00	0.00	100%
Geocel 8125 Silicobee	8.60	3.10%	0.0%	3.1%	0.0%	96.90%	0.09660	1.000	0.27	0.27	0.03	0.618	0.11	0.00	0.28	100%
Sun #41 Floor Dealer	8.60	79.00%	79.0%	0.0%	79.0%	25.00%	0.04170	1.000	0.00	0.00	0.00	0.000	0.00	0.00	0.00	100%
Congoleum SU92	7.60	76.00%	0.0%	76.0%	0.0%	24.00%	0.00013	1.000	5.78	5.78	0.00	0.018	0.00	0.00	24.07	100%
Oatey Cleaner	6.75	100.00%	25.8%	74.2%	25.8%	0.00%	0.00210	1.000	6.75	5.01	0.01	0.252	0.05	0.00	#DIV/0!	100%
Total Emissions											2.93	70.406	12.85	0.00		

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
 Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1-Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)
 Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
 Total = Worst Coating + Sum of all solvents used

From Framing Operations

Company Name: Skyline Corporation, Plant 111
 Address City IN Zip: 1209 S. Division Street, Bristol, Indiana 46507
 MSOP Renewal : 039-21507-00308
 Reviewer: Gail McGarrity
 Date: 1-Dec-06

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Hexane	Weight % Toluene	Weight % Xylene	Weight % Ethyl Benzene	Hexane Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Total HAPS (tons/yr)
Oatey ABS Cement	7.41	0.15000	1.00									0.000
Oatey Flowguard Gold CPVC Cement	8.00	0.08900	1.00									0.000
Wilsonart Lokweld 500 Contact Adhesive	6.61	0.14000	1.00	5.00%	15.00%			0.231	0.694			0.925
Oatey Clear PVC Cement	7.54	0.00200	1.00									0.000
Kempel Seamfill 901	9.16	0.00200	1.00		5.00%	10.00%	5.00%		0.004	0.008	0.004	0.016
Wilsonart Lockweld 110	6.10	0.09400	1.00	5.00%	40.00%			0.126	1.005			1.130
Congoleum SU92	7.60	0.00013	1.00		35.00%				0.002			0.002
Oatey Cleaner	6.75	0.00210	1.00									0.000
Total HAPS								0.357	1.704	0.008	0.004	2.073

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

VOC and Particulate
From Roofing Operations
constructed in 1978

Company Name: Skyline Corporation, Plant 111
Address City IN Zip: 1209 S. Division Street, Bristol, Indiana 46507
Permit Number: 039-21507-00308
Reviewer: Gail McGarrity
Date: 1-Dec-06

Material Roofing Assembly (Step 2)	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Specialty 7702 Vapor Barrier	9.80	60.00%	59.93%	0.1%	59.93%	40.00%	2.80000	1.000	0.02	0.01	0.02	0.46	0.08	12.02	0.02	75%
Bostik 900 Chemcaulk	10.13	3.90%	0.0%	3.9%	0.0%	96.10%	0.00600	1.000	0.40	0.40	0.00	0.06	0.01	0.00	0.41	100%
Alpha Pemco 5200 (as applied)	9.22	0.00%	0.0%	0.0%	0.0%	100.00%	3.30000	1.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
Brewer Cote Lap Cement Roof Adhesive 52235	8.40	29.80%	0.0%	29.8%	0.0%	70.20%	2.00000	1.000	2.50	2.50	5.01	120.15	21.93	0.00	3.57	100%
ICI-Clidden 41983 Water Proffer	8.42	88.80%	88.0%	0.8%	88.95%	11.50%	0.05200	1.000	0.61	0.07	0.00	0.08	0.02	0.00	0.59	100%
Brewer Cote Plastic Roof Cement 51219	8.40	25.00%	0.0%	25.0%	0.0%	75.00%	0.45000	1.000	2.10	2.10	0.95	22.68	4.14	0.00	2.80	100%
Total Emissions											5.98	143.44	26.18	12.02		

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
 Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1-Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
 Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
 Total = Worst Coating + Sum of all solvents used

HAPS
From Roofing Operations

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Xylene Emissions (ton/yr)	Total HAPS (tons/yr)
Bostick 900 Chemcaulk	10.13	0.006	1.00	4.00%	0.011	0.011

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

**VOC and Particulate
From Finishing Operations
constructed in 1978**

Company Name: Skyline Corporation, Plant 111
Address City IN Zip: 1209 S. Division Street, Bristol, Indiana 46507
Permit Number: 039-21507-00308
Reviewer: Gail McGarrity
Date: 1-Dec-06

Material Finishing Operation (Step 3)	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
DAP Spray N Go Spray Paint	6.25	80.10%	20.1%	60.0%	20.1%	19.90%	0.01000	1.000	4.69	3.75	0.04	0.90	0.16	0.01	18.84	75%
Dap 21142 Wood Dough	9.91	49.40%	30.0%	19.4%	30.0%	50.60%	0.00250	1.000	2.75	1.92	0.00	0.12	0.02	0.00	3.80	100%
Buckeye Workout Cleaner	8.33	98.00%	91.0%	7.0%	91.0%	2.00%	0.15000	1.000	6.48	0.58	0.09	2.10	0.38	0.00	29.16	100%
Cyclo C-10 Breakaway	7.46	96.00%	71.0%	25.0%	71.0%	4.00%	0.00200	1.000	6.43	1.87	0.00	0.09	0.02	0.00	46.63	75%
Cyclo C-111 Non Chlor Cleanr	6.33	100.00%	26.0%	74.0%	26.0%	0.00%	0.05200	1.000	6.33	4.68	0.24	5.85	1.07	0.00	#DIV/0!	75%
Buckeye Star Glass Cleaner	8.23	99.00%	77.0%	22.0%	77.0%	1.00%	0.00200	1.000	7.87	1.81	0.00	0.09	0.02	0.00	181.06	75%
Cyclo C-34 White Grease	6.66	63.00%	0.0%	63.0%	0.0%	20.00%	0.00200	1.000	4.20	4.20	0.01	0.20	0.04	0.01	20.98	75%
Daltile D50 Ceramic Tile Adhesive	11.50	4.10%	0.0%	4.1%	0.0%	95.90%	0.16000	1.000	0.47	0.47	0.08	1.81	0.33	0.00	0.49	100%
Winton Sherlock Leak Detector	8.65	99.40%	55.0%	44.4%	55.00%	0.6%	0.00800	1.000	3.86	3.84	0.03	0.74	0.13	0.00	#REF!	75%
3M Super 77 Glue	5.81	75.00%	0.0%	75.0%	0.0%	25.00%	0.01700	1.000	4.36	4.36	0.07	1.78	0.32	0.03	17.43	75%
Westech WT- MP13 Spray Adhesive	6.66	75.00%	20.0%	55.0%	20.0%	25.00%	0.02000	1.000	4.58	3.66	0.07	1.76	0.32	0.04	14.65	75%
Colometric Instant Mortar	15.24	17.75%	15.15%	2.6%	15.15%	82.25%	0.00207	1.000	0.47	0.40	0.00	0.02	0.00	0.00	0.48	100%
SW Colortouch Spray Paint	5.71	89.10%	27.00%	62.1%	27.00%	6.00%	0.05000	1.000	4.86	3.55	0.18	4.26	0.78	0.03	59.10	75%
Congoleum No Rinse Cleaner	8.33	98.00%	93.00%	5.0%	93.00%	2.00%	0.04000	1.000	5.95	0.42	0.02	0.40	0.07	0.00	20.83	100%
Endust	7.33	75.00%	50.00%	25.0%	50.00%	25.00%	0.14500	1.000	3.67	1.83	0.27	6.38	1.16	0.29	7.33	75%
Total Emissions											1.10	26.47	4.83	0.41		

METHODOLOGY

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

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

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

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

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

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

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

Total = Worst Coating + Sum of all solvents used

**HAPS
From Finishing Operations**

Company Name: Skyline Corporation, Plant 111
Address City IN Zip: 1209 S. Division Street, Bristol, Indiana 46507
Permit Number: 039-21507-00308
Reviewer: Gail McGarrity
Date: 1-Dec-06

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Toluene	Weight % Methanol	Weight % Glycol Ethers	Weight % xylene	Toluene Emissions (tons/yr)	Methanol Emissions (tons/yr)	Glycol Ethers Emissions (tons/yr)	Xylene Emissions (tons/yr)	Total HAPS (tons/yr)
DAP Spray N Go Spray Paint	6.25	0.0114	1.00	32.00%			5.00%	0.100			0.016	0.115
Buckeye Workout Cleaner	8.33	0.17	1.00			5.00%				0.310		0.310
Cyclo C-111 Non-Chlor Cleaner	6.33	0.0591	1.00	30.00%				0.492				0.492
Buckeye Starr Spray Glass	8.33	0.0023	1.00			20.00%			0.017			0.017
Daltile D50 Ceramic Tile Adhesive	11.5	0.182	1.00		2.00%				0.183			0.183
SW Colortouch Spray Paint	5.92	0.045	1.00	14.00%				0.163				0.163
Total HAPS								0.755	0.200	0.310	0.016	1.281

METHODOLOGY

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

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

Company Name: Skyline Corporation, Plant 111
Address City IN Zip: 1209 S. Division Street, Brisvot, Indiana 46507
Permit Number: 039-21507-00308
Reviewer: Gail McGarrity
Date: 3-Aug-05

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

4.9

42.9

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.60	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.0	0.2	0.01	2.1	0.1	1.8

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

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

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: Skyline Corporation, Plant 111

Address City IN Zip: 1209 S. Division Street, Brislyol, Indiana 46507

Permit Number: 039-21507-00308

Reviewer: Gail McGarrity

Date: 3-Aug-05

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	4.507E-05	2.575E-05	1.610E-03	3.863E-02	7.297E-05

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.073E-05	2.361E-05	3.005E-05	8.156E-06	4.507E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.