

**CONSTRUCTIN PERMIT
OFFICE OF AIR MANAGEMENT**

**Springs Valley Manufacturing,
A Division of Kimball International, Inc.
8831 West State Road 56
West Baden Springs, Indiana 47469**

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-117-9836-00004	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 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

The Permittee owns and operates a wood furniture manufacturing plant

Responsible Official: William J. Schuler
Source Address: 8831 West State Road 56, West Baden Springs, Indiana 47469
Mailing Address: 8831 West State Road 56, West Baden Springs, Indiana 47469
SIC Code: 2511, 2517, 2599, 3949
County Location: Orange
County Status: Attainment for all criteria pollutants
Source Status: Major Source, under Part 70 Permit Program
Major Source, under PSD Rules

A.2 Emission Units and Pollution Control Equipment Summary

This construction permit is for an Automated Flat Line Finishing System, identified as SB-38, with a maximum capacity of 1,980 pounds of boards per hour and 18 pounds of VOC per hour. This system utilizes air-assisted airless spray guns and baffles for particulate control; and exhausts through a stack, identified as SB-38.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability because it is a major source, as defined in 326 IAC 2-7-1(22)).

SECTION B GENERAL CONSTRUCTION AND OPERATION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

Construction Conditions [326 IAC 2-1-3.4]

B.1 General Construction Conditions

- (a) 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).
- (b) 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.

B.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-1-9(b)]

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.

B.4 Permit Review Rules [326 IAC 2]

Notwithstanding Operation Condition B.5, 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).

B.5 First Time Operation Permit [326 IAC 2-1-4]

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 Operation 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 its Part 70 (T-117-7357-00004) application on December 4, 1996 for the existing source. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Operation Conditions

B.6 General Operation Conditions

- (a) 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).
- (b) 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 (IC13-17) and the rules promulgated thereunder.

B.7. Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after the issuance of this permit, 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.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM.

B.8 Transfer of Permit [326 IAC 2-1-6]

Pursuant to 326 IAC 2-1-6 (Transfer of Permits):

- (a) In the event that ownership of this wood furniture manufacturing plant 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.

B.9 Permit Revocation [326 IAC 2-1-9]

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).

B.10 Availability of Permit [326 IAC 2-1-3(I)]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitation and Standards

C.1 Opacity Limitations [326 IAC 5-1-2]

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 40% opacity in 24 consecutive readings.
- (b) visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

C.2 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). 326 IAC 6-4-2(4) is not federally enforceable.

C.3 Operation of Equipment

All air pollution control equipment listed in this permit shall be in placed or operated at all times that the emission unit vented to the control equipment is in operation, as described in Section D of this permit.

Compliance Monitoring Requirements

C.4 Compliance Monitoring

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 no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend compliance schedule an additional ninety (90) days provided the Permittee notify:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

C.5 Malfunction Condition [326 IAC 1-6]

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 Form (2 pages) or its substantial equivalent. 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.6 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the requirements of this permit shall be performed, according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

Record Keeping and Reporting Requirements

C.7 Emission Statement [326 IAC 2-6]

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that meets the requirements of 326 IAC 2-6 (Emission Reporting). This annual statement must be received by July 1 of each year and must comply with the minimum requirements 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). 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

- (b) The annual emission statement 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, OAM, on or before the date it is due.

C.8 Monitoring Data Availability

- (a) All observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.9 General Record Keeping Requirements

- (a) Records of all required monitoring data and support information shall be retained for a period of two (2) 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. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (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.

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

C.10 General Reporting Requirements

- (a) 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, OAM, on or before the date it is due.

- (b) Unless otherwise specified in this permit, any quarterly report or semi-annual report shall be submitted within thirty (30) days of the end of the reporting period.

- (c) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
 - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

- (2) An emergency as defined in 326 IAC 2-7-1(12); or
- (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
- (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response steps when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring parameter is a deviation.

- (d) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

SECTION D.1 FACILITY CONDITIONS

Automated Flat Line Finishing System, identified as SB-38, with a maximum capacity of 1,980 pounds of boards per hour and 18 pounds of VOC per hour. This system utilizes air-assisted airless spray guns and baffles for particulate control; and exhausts through a stack, identified as SB-38.

Emissions Limitation and Standards

D.1.1 Volatile Organic Compounds (VOC) Usage Limit [326 IAC 2-1-5]

The VOC usage for the Automated Flat Line Finishing System shall not exceed 39 tons per twelve (12) consecutive month period rolled on a monthly basis. This is equivalent to potential to emit VOC of 39 tons per year. Compliance with this limit shall render 326 IAC 2-2 (PSD Rules) not applicable.

D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (VOC Requirements for Wood Furniture and Cabinet Coating), the wood coating operation shall apply all coating material, with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, using one (1) or more of the following application systems:

- (1) airless spray;
- (2) air-assisted airless spray;
- (3) electrostatic spray;
- (4) electrostatic bell or disc;
- (5) heated airless spray;
- (6) roller coat;
- (7) brush or wipe; or
- (8) dip-and-drain application system.

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to 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.

The Automated Flat Line Finishing System utilizes air-assisted airless spray guns that operate between six (6) and eight (8) 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.

D.1.3 Volatile Hazardous Air Pollutants (VHAPs) [40 CFR Part 63, Subpart JJ]

Pursuant to the National Emission Standards for Wood Furniture Manufacturing Operations, 40 CFR Part 63, Subpart JJ, the owner or operator of the source shall limit volatile hazardous air pollutant (VHAP) emissions from the finishing operation, upon start up, by utilizing compliant finishing materials in which any stain, washcoat, sealer, topcoat, basecoat and enamel has a VHAP content of no more than one (1.0) pound VHAP per pound solid, as applied. Any thinner used for on-site formulation of washcoats, basecoats, and enamels shall have a VHAP content no more than three percent (3.0%) by weight. Any thinner used for off-site formulation of washcoats, basecoats, and enamels shall have a VHAP content no more than ten percent (10.0%) by weight.

Enclosed is a copy of the federal rule.

D.1.4 Work Practice Standards [40 CFR 63.803]

The Permittee shall prepare and maintain a written work practice implementation plan within sixty (60) calendar days after the compliance date. The work practice implementation plan must define environmentally desirable work practices for the finishing operation and at a minimum address each of the following work practice standards as defined under 40 CFR 63.803:

- (a) Operator training course.
- (b) Leak inspection and maintenance plan.
- (c) Cleaning and wash-off solvent accounting system.
- (d) Chemical composition of cleaning and wash-off solvents.
- (e) Spray booth (Automated Flat Line Finishing System) cleaning.
- (f) Storage requirements.
- (g) Conventional air spray guns shall only be used under the circumstances defined under 40 CFR 63.803(h).
- (h) Line cleaning.
- (i) Gun cleaning.
- (j) Wash-off operations.
- (k) Formulation assessment plan for finishing operations.

D.1.5 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations), the PM emissions from the Automated Flat Line Finishing System shall not exceed the pound per hour emission rate established as E in the following formula:

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:

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

D.1.6 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Condition B.7 of this permit, is required for the Automated Flat Line Finishing System.

Compliance Determination Requirements

D.1.7 Testing Requirements [326 IAC 2-1-4(f)]

Testing of this facility is not required by this permit. However, this does not preclude testing requirements on this facility under 326 IAC 2-1-4(f).

D.1.8 Initial Compliance Report and Continuous Compliance Demonstration Report [40 CFR 63.804]

Pursuant to 40 CFR 63, Subpart JJ, an Initial Compliance Report must be submitted within sixty (60) calendar days following the start-up date of the finishing operation and a Continuous Compliance Demonstration Report must be submitted within thirty (30) days following every six (6) month period, thereafter.

Compliance Monitoring Requirements

D.1.9 Monitoring of Overspray

- (a) Weekly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Preventive Maintenance Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps shall be considered a violation of this permit.
- (b) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping Requirements

D.1.10 Record Keeping Requirements

- (a) To document continuous compliance with condition D.1.1, the Permittee shall maintain records of monthly VOC usage.
- (b) To document compliance with condition D.1.3, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be complete and sufficient to establish compliance with the VHAP usage limits established in condition D.1.3.

- (1) Certified Product Data Sheet for each finishing material and any thinner.
 - (2) The HAP content in pounds of VHAP per pounds of solids, as applied, for all finishing materials used.
 - (3) The VHAP content in weight percent of any thinner used..
- (c) To document compliance with condition D.1.4, the owner or operator shall maintain records demonstrating actions have been taken to fulfill the Work Practice Implementation Plan.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit

D.1.11 Reporting Requirements

- (a) Quarterly Report [326 IAC 2-1-5]
A quarterly summary to document compliance with operation condition D.1.1 shall be submitted within thirty (30) days after the end of the quarter being reported, using the enclosed form or its substantial equivalent. This shall include the monthly VOC usage and the VOC usage of the Automated Flat Line Finishing System for the previous 12 months, for each month in a quarter.
- (b) Initial Compliance Report [40 CFR 63.804]
An Initial Compliance Report to document compliance with condition D.1.3 shall be submitted within sixty (60) days following the start-up date of the finishing operation. The Initial Compliance Report must be submitted in accordance to the requirements of 40 CFR 63.804(f)(3) and must include data from the entire month that the compliance date falls.
- (c) Semi-Annual Continuous Compliance Report [40 CFR 63.804]
The attached semi-annual Continuous Compliance Report to document compliance with condition D.1.3 shall be submitted within thirty (30) days after the end of the six (6) months being reported. The Continuous Compliance Report must be submitted in accordance to the requirements of 40 CFR 63.804(g)(2).

The six (6) month period shall begin on the first day of the month after which the operation commences.

- (d) The report required in (a) of this condition shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (e) The reports required in (b) and (c) of this condition shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Springs Valley Manufacturing, A Division of Kimball International
West Baden Springs, Indiana
Permit Reviewer: Marco A. Salenda

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ID-117-00004

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

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

Quarterly Report

Source Name: Springs Valley Manufacturing, A Division of Kimball International, Inc.
Source Address: 8831 West State Road 56, West Baden Springs, Indiana 47469

Permit No.: CP-117-9836-00004
Facility: Automated Flat Line Finishing System (ID# SB-38)
Parameter: VOC usage
Limit: 39 tons per 12 consecutive month period rolled on a monthly basis

Year: _____

Month	Monthly VOC usage (tons) A	VOC usage for the previous 11 months (tons) B	Total VOC usage for the 12 month period (tons) C = A + B
1			
2			
3			

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

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: Springs Valley Manufacturing, A Division of Kimball International

PHONE NO. _____

LOCATION (CITY AND COUNTY): West Baden Springs/Orange County

PERMIT NO.: 117-9836 AFS PLANT ID: 117-00004 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: _____

FAX NUMBER - 317 233-5967
PAGE 1 OF 2

*SEE REVERSE

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: Springs Valley Manufacturing,
A Division of Kimball International, Inc.
Source Location: 8831 West State Road 56, West Baden Springs, Indiana 47469
County: Orange
Construction Permit No.: CP-117-9836
Plant ID No.: 117-00004
SIC Code: 2511, 2517, 2599, 3949
Permit Reviewer: Marco A. Salenda

The Office of Air Management (OAM) has reviewed an application from Springs Valley Manufacturing, A Division of Kimball International, Inc., relating to the construction and operation of one (1) Automated Flat Line Finishing System, identified as SB-38, with a maximum capacity of 1,980 pounds of boards per hour and 18 pounds of VOC per hour. This system utilizes air-assisted airless spray guns and baffles for particulate control; and exhausts through a stack, identified as SB-38.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
SB-38	Automated Flat Line Finishing System	24	2 x 2 (square)	10,000	ambient

Recommendation

The staff recommends to the Commissioner that the construction 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.

A complete application for the purposes of this review was received on June 10, 1998.

Emissions Calculations

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations (one page).

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)	2.3	2.3
Particulate Matter (PM10)	2.3	2.3
Sulfur Dioxide (SO ₂)	0.0	0.0
Volatile Organic Compounds (VOC)	78.9	78.9
Carbon Monoxide (CO)	0.0	0.0
Nitrogen Oxides (NO _x)	0.0	0.0
Single Hazardous Air Pollutant (HAP)	11.8	11.8
Combination of HAPs	11.9	11.9

- (a) The potential emissions before control are equivalent to the allowable emissions, in this case. Therefore, either type of emissions are used for the permitting determination.
- (b) Allowable emissions (as defined in the Indiana Rule) of VOC are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.
- (c) Allowable emissions (as defined in the Indiana Rule) of a single hazardous air pollutant (HAP) are greater than 10 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 (NO_x) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Orange County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Orange County has also been classified as attainment or unclassifiable for the rest of the 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	3
PM10	0.0
SO ₂	0.0
VOC	1,578
CO	0.0
NO _x	0.0

- (a) This existing source is a major stationary source because at least one attainment regulated pollutant is emitted at a rate of 250 tons per year.
- (b) These emissions were based on the Facility Quick Look Report, dated April 1, 1998.

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	2.3	2.3	0.0	39	0.0	0.0
Contemporaneous Increases	n/a	n/a	n/a	n/a	n/a	n/a
Contemporaneous Decreases	n/a	n/a	n/a	n/a	n/a	n/a
Net Emissions	2.3	2.3	0.0	39	0.0	0.0
PSD or Offset Significant Level	25	15	40	40	100	40

- (a) The source has agreed to limit the VOC usage of the Automated Flat Line Finishing System to 39 tons per any twelve (12) consecutive month period.
- (b) This modification to an existing major stationary source is not major because the emissions 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 its Part 70 (T-117-7357-00004) application on December 4, 1996. 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) and 40 CFR Part 60 applicable to the subject facilities.
- (b) 40 CFR Part 63, Subpart JJ, National Emission Standards for Wood Furniture Manufacturing Operations

The source is subject to 40 CFR Part 63, Subpart JJ (National Emission Standards for Wood Furniture Manufacturing Operations). This rule requires an existing "major" source of volatile hazardous air pollutants (VHAP) to limit VHAP emissions from wood finishing operations to 1.0 pound of VHAP per pound of solids, as applied.

The source has elected to comply with the rule by using compliant coatings.

State Rule Applicability

- (a) 326 IAC 2-6 (Emission Reporting)
The source is subject to 326 IAC 2-6 (Emission Reporting), because it emits more than 100 tons per year of VOC. Pursuant to this rule, the owner/operator must annually submit an emission statement for all facilities. The annual statement must be received by July 1 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.
- (b) 326 IAC 5-1 (Visible Emissions)
This rule, except as provided in 326 IAC 5-1-3 (Temporary Exemptions), requires that the visible emissions meet the following:
- (1) visible emissions shall not exceed an average of 40% opacity in 24 consecutive readings.
 - (2) visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.
- (c) 326 IAC 6-3-2 (Particulate Emission Limitations for Process Operations)
This rule requires that the PM emissions from the Automated Flat Line Finishing System shall not exceed the pound per hour emission rate established as E in the following formula:
- 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:
- $$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$
- The source will show compliance by using baffles for particulate control.
- (d) 326 IAC 8-2-12 (VOC Requirements for Wood Furniture and Cabinet Coating)
This rule requires the owner/operator to apply all coating material, with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, using one (1) or more of the following application systems:
- (1) airless spray;
 - (2) air-assisted airless spray;
 - (3) electrostatic spray;
 - (4) electrostatic bell or disc;
 - (5) heated airless spray;
 - (6) roller coat;

- (7) brush or wipe; or
- (8) dip-and-drain application system.

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to 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.

The Automated Flat Line Finishing System will use air-assisted airless spray guns that operate between six (6) and eight (8) 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.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 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.

This proposed source modification will emit levels of air toxics greater than those that constitute major source applicability according to Section 112 of the Clean Air Act. The concentrations of these air toxics were modeled and found to be below the Permissible Exposure Limits (PEL) developed by the Occupational Safety and Health Administration (OSHA).

Conclusion

The construction of this Automated Flat Line Finishing System will be subject to the conditions of the attached proposed **Construction Permit No. CP-117-9836, Plt ID No. 117-00004**.

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for New Construction and Operation

Source Name: Springs Valley Manufacturing,
A Division of Kimball International, Inc.
Source Location: 8831 West State Road 56, West Baden Springs, Indiana 47469
County: Orange
Construction Permit No.: CP-117-9836
Plant ID No.: 117-00004
SIC Code: 2511, 2517, 2599, 3949
Permit Reviewer: Marco A. Salenda

On July 7, 1998, the Office of Air Management (OAM) had a notice published in the Paoli New-Republican, Paoli, Indiana, stating that Springs Valley Manufacturing, A Division of Kimball International, Inc. had applied for a construction permit to construct and operate one (1) Automated Flat Line Finishing System, identified as SB-38. The notice also stated that OAM proposed to issue a permit for this installation 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.

On July 28, 1998, Stanley R. Schmitt of Kimball International, Inc. submitted comments on the proposed construction permit. The summary of the comments and corresponding responses is as follows:

Comment 1

In reference to Section A.1 (General Information) - Source Status: Major Source under PSD Rules. We believe the Source Status should be changed to: Synthetic Minor Source, under PSD rules, because of the permit VOC emission limitation (less than 40 tons per year).

Response 1

The VOC usage of the proposed Automated Flat Line Finishing System was limited to 39 tons per year per any twelve (12) consecutive month period. This makes the installation of this facility a "minor modification" to the source since the PSD significant level for VOC of 40 tons per year is not exceeded. Notwithstanding this limitation, Springs Valley Manufacturing is considered a "major PSD source" since it has a potential to emit VOC of 1,578 tons per year even prior to the installation of this facility (see page 2 of 5, Technical Support Document).

Comment 2

In reference to Section D.1.9 (Performance Monitoring for Baffles), there will be no baffles installed in this operation because the robotic sprayers are aimed downwards and particulate overspray is captured on the conveyor belt. Only vapor emissions will be discharged through the stack. Therefore, we believe Section D.1.9 should be deleted from the permit since no particulates will be exhausted.

Response 2

The requirement to monitor the performance of the baffles is deleted. However, the Permittee is still required to inspect for the presence of any overspray on rooftops and the nearby ground at least once a

week, regardless of how the spraying is performed. Proper corrective actions per the Preventive Maintenance Plan should be performed during such times when overspray is observed on these areas. Therefore condition D.1.9 is revised as follows:

~~old language~~ is stricken out
new language is bolded for emphasis

D.1.9 Performance Monitoring for Baffles of Overspray

- ~~(a)~~ Daily inspections shall be performed to verify the placement, integrity and particle loading of the baffles. To monitor the performance of the baffles, daily observations shall be made of the overspray from the surface coating booth stack, SB-38, while the Automated Flat Line Finishing System is in operation. The Preventive Maintenance Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps shall be considered a violation of this permit.
- ~~(b)~~ **(a)** Weekly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Preventive Maintenance Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps shall be considered a violation of this permit.
- ~~(c)~~ **(b)** Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Mail to: Permit Administration & Development Section
Office Of Air Management
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Springs Valley Manufacturing, A Division of Kimball International
8831 West State Road 56
West Baden Springs, Indiana 47469

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of _____ for _____.
(Title) (Company Name)
3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.
(Company Name)
4. I hereby certify that Springs Valley Manufacturing, A Division of Kimball International, 8831 West State Road 56, West Baden Springs, Indiana 47469, has constructed the Automated Flat Line Finishing System (ID# SB-38) in conformity with the requirements and intent of the construction permit application received by the Office of Air Management on June 10, 1998 and as permitted pursuant to **Construction Permit No. CP-117-9836, Plant ID No. 117-00004** issued on _____.
5. I hereby certify that Springs Valley Manufacturing, A Division of Kimball International, is subject to the Title V program and has submitted a Title V operating permit application on December 4, 1996.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature

Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of
Indiana on this _____ day of _____, 19 _____.

My Commission expires: _____

Signature

Name (typed or printed)

Surface Coating Operations

Company Name: Springs Valley Manufacturing, A Division of Kimball International, Inc.
 Address City IN Zip: 8831 West State Road 56, West Baden Springs, Indiana 47469
 CP: 117-9836
 Plt ID: 117-00004
 Reviewer: Marco A. Salenda
 Date: June 17, 1998

I. Facility Description

One (1) Automated Flat Line Finishing System (ID# SB-38) with a maximum capacity of 1,980 pounds of board per hour and utilizing air-assisted airless spray guns

II. Potential VOC and PM/PM-10 Emissions

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) 1 unit = 1,980 lbs	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	Potential PM/PM-10 before controls ton/yr	Potential PM/PM-10 after controls ton/yr	lb VOC /gal solids	Transfer Efficiency	PM/PM-10 Control Efficiency
MUSKET OAK W/S (Stain)	7.45	85.5%	0.0%	85.5%	89.7%	10.3%	0.75	1.00	61.78	6.37	4.78	114.67	20.93	0.18	0.07	61.78	95%	60%
U.V. SEMIGLOSS TOP COAT	8.11	55.5%	0.0%	55.5%	59.6%	40.4%	2.63	1.00	11.14	4.50	11.84	284.06	51.84	2.08	0.83	11.14	95%	60%
n-BUTYL ACETATE (Reducer)	7.32	100.0%	0.0%	100.0%	0.0%	0.0%	0.19	1.00	7.32	7.32	1.39	33.38	6.09	0.00	0.00	ERR	95%	60%

State Potential Emissions **Add worst case coating to all solvents** **3.00** **80.24** **18.19** **18.00** **432.10** **78.86** **2.26** **0.90**

METHODOLOGY

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)
 Total = Worst Coating + Sum of all solvents used

III. Potential HAP Emissions

Material	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour) 1 unit = 1,980 lb	Weight % Cobalt cpds	Weight % Acrolein	Weight % Acetaldehyde	Weight % MEK	Cobalt cpds (ton/yr)	Acrolein (ton/yr)	Acetaldehyde (ton/yr)	MEK (ton/yr)
U.V. SEMIGLOSS TOP COAT	8.11	2.63	1	0.04%	0.001%	0.001%	12.66%	0.04	0.00	0.00	11.83

Potential Emissions for Worst Case HAP = **11.83 tons/yr**
 Potential Emissions for Combination of HAP **11.87 tons/yr**

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
 Only the U.V. Semigloss Top Coat contain HAPs.

IV. Limited VOC Emissions

Since the potential VOC emissions are greater than the 40 tons per year PSD significant levels, the source has agreed to limit VOC usage to 39 tons per year.

V. Determination of Compliance with 40 CFR Part 63, Subpart JJ

Limit = 1.0 lb VHAP/lb solids, as applied

Potential VHAP Emissions = 0.28 lb VHAP/lb solids, as applied

Since the potential VHAP emissions are less than the limit, the facility complies with 40 CFR Part 63, Subpart JJ.