

Robert Nichols
Therma Tru Corporation
108 Mutzfield Road
Butler, Indiana 46721

Re: **033-12630**
Significant Source Modification to:
Part 70 Operating Permit No.: **T 033-7929-00019**

Dear Mr. Nichols:

ThermaTru Corporation was issued Part 70 operating permit **T 033-7929-00019** on November 12, 1998 for a stationary metal doors, sash and trim plastics products manufacturing plant. An application to modify the source was received on August 17, 2000. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

One (1) flowcoating operation, identified as EU3, consisting of one (1) flowcoater, equipped with filters, replaced in 2000, one (1) flash off tunnel and one (1) paint cure oven, with a maximum capacity of 360 doors per hour, and exhausting to stacks 3.1 and 3.2, 4.1 and 4.2, and 4.3 and 4.4 respectively.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Management (OAM).
2. This approval 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.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The proposed operating conditions applicable to these emission units are attached to this Source Modification approval. These proposed operating conditions shall be incorporated into the Part 70 operating permit as an administrative amendment in accordance with 326 IAC 2-7-10.5(l)(1) and 326 IAC 2-7-11.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter contact Mark L. Kramer, c/o OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
MLK/MES

cc: File - Dekalb County
U.S. EPA, Region V
Dekalb County Health Department
Northwest Regional Office
Air Compliance Section Inspector - Doyle Houser
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

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

**Therma Tru Corporation
108 Mutzfeld Road
Butler, Indiana 46721**

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

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

Operation Permit No.: T 033-7927-00019	
Issued by: Felicia R. George, Assistant Commissioner Office of Air Management	Issuance Date: November 12, 1999

First Significant Source Modification, SSM 033-10998-00019, issued January 21, 2000
 First Significant Permit Modification, SPM 033-11605-00019, issued January 28, 2000
 Second Significant Permit Modification SPM 033-11940-00019, issued June 2, 2000

Second Significant Source Modification: SPM 033-12630-00019	Pages Affected: 5, 5a, 5b, 30 - 32a, and 43a
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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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 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 [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary metal doors, sash and trim plastics products manufacturing plant

Responsible Official: Robert Nichols
Source Address: 108 Mutzfeld Road, Butler, IN 46721
Mailing Address: 108 Mutzfeld Road, Butler, IN 46721
SIC Code: 3442 and 3089
County Location: Dekalb
County Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Minor Source, under PSD Rules;
Major Source, Section 112 of the Clean Air Act

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

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

- (1) Fiberglass operations, identified as EU1, consisting of one (1) resin mixer, one (1) fiberglass extruder (SMC) and six (6) fiberglass presses, with a maximum capacity of 17,280 pounds of resin per hour, and exhausting to stacks 13.1, 13.2 13.3 and 13.4
- (2) One door skin gluing operation, identified as EU2, with a maximum capacity of 360 doors per hour, and exhausting to stacks 1.1 and 1.2.
- (3) One (1) flowcoating operation, identified as EU3, consisting of one (1) flowcoater, equipped with filters, replaced in 2000, one (1) flash off tunnel and one (1) paint cure oven, with a maximum capacity of 360 doors per hour, and exhausting to stacks 3.1 and 3.2, 4.1 and 4.2, and 4.3 and 4.4 respectively.
- (4) One (1) machining station, identified as EU4, with a maximum capacity of 360 doors per hour, using a dust collector for particulate emission control, and exhausting to stack 5.1.
- (5) One (1) calcium carbonate storage silo, identified as EU5, with a maximum throughput of 16,500 pounds per day, and using a baghouse for particulate control.
- (6) Degreasing operations, identified as EU6, consisting of one (1) Safety Kleen cold cleaner and one (1) methylene chloride cold cleaner, exhausting to stacks 13.1, 13.2, 13.3 and 13.4.

Door Assembly Line, capacity: 20,250 pounds of doors per hour or 450 doors per hour

- (7) One (1) electric door skin preheat oven, known as D2-OV1, exhausting through Stack 6.8 and/or Stack 7.2 and/or Stack 18.1, capacity: 20,250 pounds per hour of fiberglass door skins per hour or 450 doors per hour.
- (8) One (1) adhesive application station, known as D2-APP1, exhausting through Stack 6.8 and/or Stack 7.2 and/or Stack 18.2, capacity, 43 pounds of adhesive per hour or 450 doors per hour.
- (9) One (1) electric glue curing oven, exhausting through Stack 6.8 and/or Stack 7.2 and/or Stack 18.2, known as D2-OV2, capacity: 450 doors per hour.
- (10) One (1) electric skin reheat oven, known as D2-OV3, exhausting through Stack 6.8 and/or Stack 7.2 and/or Stack 18.3, capacity: 450 doors per hour.
- (11) One (1) door foam injection system, known as D2-F1, exhausting through Stack 19.1, capacity: 2,300 pounds of resin and foam insulation per hour or 450 doors per hour.
- (12) One (1) door machining station, known as D2-MS1, equipped with a baghouse and cyclone connected in series, known as D2-DC1, exhausting through Stack 20.1, capacity: 450 doors per hour or 20,250 pounds per hour.

New Skins Warehouse

Molding Plant Sheet Molding Compound Production Line, known as SMC2, capacity: 18,500 pounds of molding compound per hour, consisting of:

- (13) One (1) existing permitted calcium carbonate silo to be relocated, equipped with a baghouse, known as SILO1, exhausting through Stacks 25.1, capacity: 150,000 pounds calcium carbonate.
- (14) Two (2) calcium carbonate silos, known as SILO2 and SILO3, each equipped with a baghouse, exhausting through Stacks 25.2 and 25.3, throughput: 8,880 pounds of calcium carbonate per hour each, capacity: 200,000 pounds calcium carbonate, each.
- (15) Two (2) resin mixers, exhausting through Stack 17.1 and/or Stack 17.2, total throughput: 8,880 pounds of calcium carbonate, 4,700 pounds of resin, 648 pounds of pigment mixture, 130 pounds of release agent, and 74 pounds of catalyst per hour.
- (16) One (1) sheet molding compound extruder, exhausting through Stack 17.1 and/or Stack 17.2, throughput 14,432 pounds of materials plus 4,070 pounds of chopped fiberglass strands per hour.
- (17) Four (4) sheet molding compound presses, total throughput 18,500 pounds of sheet molding compound per hour.
- (18) One (1) hose cleaning re-circulation station, (cold cleaner tank, known as SMC-CC2), exhausting through Stack 17.1 and/or Stack 17.2, capacity: 0.957 pounds of methylene chloride per hour (based on 20 hours per day at 1.75 gallons per day).

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

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (1) Fiberglass operations, identified as EU1, consisting of one (1) resin mixer, one (1) fiberglass extruder (SMC) and six (6) fiberglass presses, with a maximum capacity of 17,280 pounds of resin per hour, and exhausting to stacks 13.1, 13.2 13.3 and 13.4
- (2) One door skin gluing operation, identified as EU2, with a maximum capacity of 360 doors per hour, and exhausting to stacks 1.1 and 1.2.
- (3) One (1) flowcoating operation, identified as EU3, consisting of one (1) flowcoater, equipped with filters, replaced in 2000, one (1) flash off tunnel and one (1) paint cure oven, with a maximum capacity of 360 doors per hour, and exhausting to stacks 3.1and 3.2, 4.1and 4.2, and 4.3 and 4.4 respectively.

(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 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

-
- (a) The total potential to emit VOCs from the fiberglass operation (EU1) shall be limited to 24 tons per year, based on a monthly rolling average. Therefore, pursuant to 326 IAC 8-1-6 (BACT), this facility will not be subject to this rule.
 - (b) Any change or modification which may increase the actual emissions of VOC to 25 tons or more per year from the fiberglass operations (EU1) must be approved by the Office of Air Management before such change may occur.
 - (c) Any change or modification which may increase the potential emissions of VOC to 25 tons or more per year from the door skin gluing operations (EU2) must be approved by the Office of Air Management before such change may occur.

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

The flowcoater (EU3) shall use less than 74.8 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of VOC to less than 74.8 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

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- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating), the volatile organic compound (VOC) content of coating delivered to the applicator at the flowcoating operation (EU3) shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

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

D.1.4 PM and PM₁₀ [326 IAC 2-2]

The PM and PM₁₀ emissions from the flowcoater (EU3) shall not exceed 1.19 pounds per hour. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

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

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the fiberglass operation shall not exceed 17.38 pounds per hour when operating at a process weight rate of 17280 pounds per hour.

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

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

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

- (b) Pursuant to 326 IAC 6-3-2(c)(Particulate Emission Limitations), the particulate matter (PM) overspray from the door skin gluing operation (EU2) shall be limited by the following:

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 2-7-5(13)]

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

Compliance Determination Requirements

D.1.7 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.8 VOC Emissions

Compliance with Conditions D.1.1(a) and D.1.2 shall be demonstrated at the end of each month based on the total volatile organic compound usage for the most recent 12 month period.

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

D.1.9 Particulate Matter (PM)

The filters for PM control shall be in operation at all times when the flowcoater (EU3) is in operation.

D.1.10 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (3.1 and 3.2) while the flowcoater is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response 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 Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

D.1.11 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1.
 - (1) The amount and 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;
 - (2) A log of the dates of use;
 - (3) The volume weighted VOC content of the coatings used for each day that any coating with VOC content greater than 3.5 pounds per gallon, less water, is used, by:

$$\frac{\text{lb VOC}}{\text{gallon less water}} = 3 \frac{\text{coatings } [Dc * O * Q / [1-W * Dc / Dw]]}{3 C}$$

Dc = density of coating, lb/gal
O = weight percent organics, %
W = percent volume water, %

Dw = density of water, lb/gal
Q = quantity of coating, gal/unit
C = total of coatings used, gal/unit

- (4) The cleanup solvent usage for each month;

- (5) The total VOC usage for each month; and
 - (6) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1.
- (1) The amount and 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;
 - (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC usage for each month; and
 - (5) The weight of VOCs emitted for each compliance period.
- (c) To document compliance with Conditions D.1.8 and D.1.9, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.12 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1(a) and D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
AIR COMPLIANCE BRANCH**

Part 70 Quarterly Report

Source Name: Therma Tru Corporation
Source Address: 108 Mutzfeld Road, Butler, Indiana 46721
Mailing Address: 108 Mutzfeld Road, Butler, Indiana 46721
Part 70 Permit No.: T033-7927-00019
Facility: Flowcoater (EU3)
Parameter: VOC delivered to the flowcoater
Limit: Less than 74.8 tons per twelve (12) consecutive month period

YEAR: _____

Month	VOC (tons)	VOC (tons)	VOC (tons)
	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification is not required for this report

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for a Significant Source Modification to a Part 70 Operating Permit

Source Name:	Therma Tru Corporation
Source Location:	108 Mutzfield Road, Butler, Indiana 46721
County:	Dekalb
Operation Permit No.:	T 033-7927-00019
Significant Source Modification No.:	033-12630-00019
SIC Code:	3442 & 3089
Permit Reviewer:	Mark L. Kramer

On November 2, 2000, the Office of Air Management (OAM) had a notice published in the Auburn Evening Star, Auburn, Indiana, stating that Therma Tru Corporation had applied for a Significant Source Modification to a Part 70 Operating Permit to construct a new flowcoater to replace the existing flowcoater. The notice also stated that OAM proposed to issue a Significant Source Modification and provided information on how the public could review the proposed Significant Source Modification 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 Significant Source Modification to a Part 70 Operating Permit should be issued as proposed.

On November 27, 2000, Ken West of Therma Tru Corporation submitted comments on the proposed Significant Source Modification to a Part 70 Operating Permit. The comments are as follows: The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1:

Three (3) corrections need to be made on page 5a of 44 of the Part 70 Operating Permit that were previous correct in 033-11940 as follows:

- (14) ...Capacity: 200,000 pounds of calcium carbonate, each.
- (15) Two (2) resin mixers...
- (17) Four (4) sheet molding compound presses,...

Response 1:

Condition A.2 on page 5a of 44 has been revised to incorporate the changes from 033-11940. Since this modification did not involve these facilities, no other changes need to be made.

- (14) Two (2) calcium carbonate silos, known as SILO2 and SILO3, each equipped with a baghouse, exhausting through Stacks 25.2 and 25.3, throughput: 8,880 pounds of calcium carbonate per hour each, capacity: ~~150,000~~ **200,000** pounds calcium carbonate, each.
- (15) ~~One (1)~~ **Two (2)** resin mixers, exhausting through Stack 17.1 and/or Stack 17.2, total throughput: 8,880 pounds of calcium carbonate, 4,700 pounds of resin, 648 pounds of pigment mixture, 130 pounds of release agent, and 74 pounds of catalyst per hour.
- (17) ~~One (1)~~ **Four (4)** sheet molding compound presses, total throughput 18,500 pounds of sheet molding compound per hour.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Part 70 Significant Source Modification

Source Background and Description

Source Name:	Therma Tru Corporation
Source Location:	108 Mutzfield Road, Butler, Indiana 46721
County:	Dekalb
SIC Code:	3442 and 3089
Operation Permit No.:	T 033-7929-00019
Operation Permit Issuance Date:	November 12, 1998
Significant Source Modification No.:	033-12630-00019
Permit Reviewer:	Mark L. Kramer

The Office of Air Management (OAM) has reviewed a modification application from Therma Tru Corporation relating to the construction of the following emission units and pollution control devices:

One (1) flowcoater, identified as EU3, equipped with filters, exhausting to stacks 3.1 and 3.2, capacity: 360 doors per hour.

History

On August 17, 2000, Therma Tru Corporation submitted an application to the OAM requesting to replace the flowcoater at their existing plant. Therma Tru Corporation was issued a Part 70 permit on November 12, 1998.

The proposed flowcoater (EU3) is not identical to the current flowcoater and therefore is not a replacement in kind. The current production flowcoater was constructed of mild steel and corroded due to the change to water-borne coatings. The proposed flowcoater will be constructed of stainless steel and its structural and material properties will allow for better quality and consistency, lower maintenance and longer life than the current flowcoater.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
3.1	Flowcoater (EU3)	30.0	2.33	1,500	70
3.2	Flowcoater (EU3)	30.0	2.33	1,500	70

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on August 17, 2000.

Emission Calculations

See page 1 of 1 of Appendix A of this document for detailed emissions calculations. The applicant indicated that the proposed flowcoater is equipped with filters and subsequently the transfer efficiency for the flowcoater has been assumed to be 90% with a 90% control efficiency for filters.

Potential To Emit of Modification

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

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	52.5
PM ₁₀	52.5
SO ₂	0.00
VOC	101
CO	0.00
NO _x	0.00

HAPs	Potential To Emit (tons/year)
None	

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4).

County Attainment Status

The source is located in Dekalb County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Dekalb 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) Dekalb County has been classified as attainment or unclassifiable for remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

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

Pollutant	Emissions (tons/year)
PM	306.3
PM ₁₀	307.5
SO ₂	0.127
VOC	<183.2
CO	17.8
NO _x	21.2

- (a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon Technical Support Document for SSM 033-10998-00019, issued January 21, 2000.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Pollutant	PM (tons/yr)	PM ₁₀ (tons/yr)	SO ₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NO _x (tons/yr)
Future Potential	5.25	5.25	0.00	< 74.8	0.00	0.00
Present Actual	1.8	1.8	0.00	34.8	0.00	0.00
Net Emissions	3.45	3.45	0.00	< 40	0.00	0.00
PSD Significant Level	25	15	40	40	100	40

- (a) The present actual emissions are the average annual emissions based on the 1998 and 1999 actual emissions from the current flowcoater. This proposed modification is the first modification since the source has been classified as a major source pursuant to 326 IAC 2-2 and SSM 033-10998-00019, issued January 21, 2000.
- (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.
- (c) The VOC applied to the flowcoater is limited to less than 74.8 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-2 do not apply.

Federal Rule Applicability

- (a) This significant source modification does not involve a pollutant-specific emissions unit with the potential to emit after control in an amount equal to or greater than one hundred (100) tons per year. Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable.
- (b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Individual Facilities

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

- (a) The flowcoating operation (EU3) performs surface coating on metal doors, has a SIC code of 3442 and emits more than 15 pounds of VOC per day. Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings delivered to the applicator at the flow coating operation (EU3) shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

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

Based on the MSDS submitted by the source and calculations made, the spray booth is in compliance with this requirement.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the flowcoater 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:

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

The filters shall be in operation at all times the flowcoater is in operation, in order to comply with this limit.

Compliance Requirements

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

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

The flowcoater has applicable compliance monitoring conditions as specified below:

- (a) The Permittee shall record the amount of VOC delivered to the flowcoater on a monthly basis.
- (b) The Permittee shall keep records of the VOC content of the coatings delivered to the flowcoater.
- (c) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters for flowcoater (EU3). To monitor the performance of the dry filters, weekly observations shall be made of the overspray while the paint booths is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (d) Monthly inspections shall be performed of the coating emissions from the flowcoater stack exhausts, identified as stacks 3.1 and 3.2, for the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an overspray emission, evidence of overspray emission, or other abnormal emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (e) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the filters for the paint booths must operate properly to ensure compliance with 326 IAC 6-1, 326 IAC 5-1 and 326 IAC 2-7 (Part 70).

These monitoring conditions are necessary because to ensure compliance with 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-7 (Part 70).

Proposed Changes

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

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 [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary metal doors, sash and trim plastics products manufacturing plant

Responsible Official: **Robert Nichols Brett Mueller**

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

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

- (1) Fiberglass operations, identified as EU1, consisting of one (1) resin mixer, one (1) fiberglass extruder (SMC) and six (6) fiberglass presses, with a maximum capacity of 17,280 pounds of resin per hour, and exhausting to stacks 13.1, 13.2 13.3 and 13.4
- (2) One door skin gluing operation, identified as EU2, with a maximum capacity of 360 doors per hour, and exhausting to stacks 1.1 and 1.2.
- (3) One (1) flowcoating operation, identified as EU3, consisting of one (1) flowcoater, **equipped with filters, replaced in 2000**, one (1) flash off tunnel and one (1) paint cure oven, with a maximum capacity of 360 doors per hour, and exhausting to stacks 3.1 and 3.2, 4.1 and 4.2, and 4.3 and 4.4 respectively.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (1) Fiberglass operations, identified as EU1, consisting of one (1) resin mixer, one (1) fiberglass extruder (SMC) and six (6) fiberglass presses, with a maximum capacity of 17,280 pounds of resin per hour, and exhausting to stacks 13.1, 13.2 13.3 and 13.4
- (2) One door skin gluing operation, identified as EU2, with a maximum capacity of 360 doors per hour, and exhausting to stacks 1.1 and 1.2.
- (3) One (1) flowcoating operation, identified as EU3, consisting of **one (1) three (3) flowcoaters, equipped with filters**, one (1) flash off tunnel and **one (1) four (4) paint cure ovens**, with a maximum capacity of 360 doors per hour, and exhausting to stacks 3.1, 3.2, 4.1, 4.2, 4.3 and 4.4.

(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 2-7-5(1)]

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

The flowcoater (EU3) shall use less than 74.8 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit of VOC to less than 74.8 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.32 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating), the volatile organic compound (VOC) content of coating delivered to the applicator at the flowcoating operation (EU3) shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

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

D.1.4 PM and PM₁₀ [326 IAC 2-2]

The PM and PM₁₀ emissions from the flowcoater (EU3) shall not exceed 1.19 pounds per hour. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.53 Particulate Matter (PM) [326 IAC 6-3-2(c)]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the fiberglass operation shall not exceed 17.38 pounds per hour when operating at a process weight rate of 17280 pounds per hour.

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

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

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

P = process weight rate in tons per hour

- (b) Pursuant to 326 IAC 6-3-2(c)(Particulate Emission Limitations), the particulate matter (PM) overspray from the door skin gluing operation (EU2) shall be limited by the following:

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

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

Compliance Determination Requirements

D.1.5 Testing Requirements [326 IAC 2-7-6(1)]

~~The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the VOC limit specified in Condition D.1.1(a) shall be determined by a performance test conducted in accordance with Section C - Performance Testing.~~

D.1.76 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.87 VOC Emissions

Compliance with Conditions D.1.1(a) and D.1.2 shall be demonstrated at the end of each month based on the total volatile organic compound usage for the most recent 12 month period.

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

D.1.9 Particulate Matter (PM)

The filters for PM control shall be in operation at all times when the flowcoater (EU3) is in operation.

D.1.10 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (3.1 and 3.2) while the flowcoater is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response 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 Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

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

D.1.118 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1.
 - (1) The amount and 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;
 - (2) A log of the dates of use;
 - (3) The volume weighted VOC content of the coatings used for each day that any coating with VOC content greater than 3.5 pounds per gallon, less water, is used, by:

$$\frac{\text{lb VOC}}{\text{gallon less water}} = 3 \text{ coatings } \frac{[Dc * O * Q / [1-W * Dc / Dw]]}{3 C}$$

Dc = density of coating, lb/gal
Dw = density of water, lb/gal
O = weight percent organics, %
Q = quantity of coating, gal/unit
W = percent volume water, %
C = total of coatings used, gal/unit

- (4) The cleanup solvent usage for each month;
 - (5) The total VOC usage for each month; and
 - (6) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1.**
- (1) The amount and 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;**
 - (2) A log of the dates of use;**
 - (3) The cleanup solvent usage for each month;**
 - (4) The total VOC usage for each month; and**
 - (5) The weight of VOCs emitted for each compliance period.**
- (c) To document compliance with Conditions D.1.8 and D.1.9, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.**
- (db)** All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.129 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1(a) and D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
AIR COMPLIANCE BRANCH**

Part 70 Quarterly Report

Source Name: Therma Tru Corporation
Source Address: 108 Mutzfeld Road, Butler, Indiana 46721
Mailing Address: 108 Mutzfeld Road, Butler, Indiana 46721
Part 70 Permit No.: T033-7927-00019
Facility: Flowcoater (EU3)
Parameter: VOC delivered to the flowcoater
Limit: Less than 74.8 tons per twelve (12) consecutive month period

YEAR: _____

Month	VOC (tons)	VOC (tons)	VOC (tons)
	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification is not required for this report

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 033-12630-00019.

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

Company Name: Therma Tru Corporation
Address City IN Zip: 108 Mutzfield Road, Butler, Indiana 46721
SSM: 033-12630
PIT ID: 033-00019
Reviewer: Mark L. Kramer
Date: August 17, 2000

No HAPs from these Materials

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/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 (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	
Grey Water Reducible Primer	10.19	61.11%	54.9%	6.21%	0.0%	38.89%	0.08400	360.000	0.63	0.63	19.14	459.26	83.81	52.49	1.63	90%	
Antique White W/R Primer	9.70	64.55%	56.7%	7.85%	0.0%	35.45%	0.08400	360.000	0.76	0.76	23.03	552.63	100.85	45.55	2.15	90%	
State Potential Emissions									PM	Control Efficiency	90.00%	Uncontrolled	23.0	552.6	100.9	52.5	
METHODOLOGY																	
Controlled												23.0	552.6	100.9	5.25		

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/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