



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

December 17, 2004

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant

RE: Therma Tru Corporation / 033-19853-00094

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FN-REGIS.dot 9/16/03



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

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December 17, 2004

Bruce Wesner
Therma Tru Corporation
108 Mutzfeld Road
Butler, IN 46721

Re: Registered Construction and Operation Status,
033-19853-00094

Dear Mr. Wesner:

The application from Therma Tru Corporation, received on November 19, 2004, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following stationary patio door manufacturing and assembling plant, to be located at 105 Industrial Parkway, Waterloo, IN 46793 is classified as registered:

- (a) One (1) patio door frame manufacturing operation, consisting of cutting, sawing, drilling, and/or routing of wood, with a maximum throughput capacity of 270 patio door units per day, and with particulate emissions from each of the emission units controlled by one (1) baghouse dust collector, with a control efficiency of 99%, a maximum gas flow rate of twelve thousand (12,000) actual cubic feet per minute (acfm), and exhausting to Stack 1. The source consists of the following emission units:
 - (1) One (1) computerized numerically controlled (CNC) machine for cutting, drilling, and/or routing of wood;
 - (2) Five (5) Mitre chop saws for cutting of wood;
 - (3) One (1) table saw for cutting of wood;
 - (4) One (1) radial arm saw for cutting of wood;
 - (5) Three (3) Jamb machines for drilling and/or routing of wood;

The following conditions shall be applicable:

- (a) Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
 - (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

- (b) Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.
- (c) The requirements of 326 IAC 6-3 are applicable to each of the individual emission units at this source. Pursuant to 326 IAC 6-3-2(e)(2), any manufacturing process not exempt under 326 IAC 6-3-1(b) or (c) and to which the control methods in 326 IAC 6-3-2 (b) through (d) do not apply shall calculate allowable particulate emissions as follows:
 - (1) No person shall operate any manufacturing process so as to produce, cause, suffer, or allow particulate to be emitted in excess of the amount shown in the table in 326 IAC 6-3-2(e)(2). The allowable rate of emission shall be based on the process weight rate for a manufacturing process.
 - (2) When the process weight rate is less than one hundred (100) pounds per hour, the allowable rate of emission is five hundred fifty-one thousandths (0.551) pound per hour.
 - (3) When the process weight exceeds two hundred (200) tons per hour, the allowable emission may exceed that shown in the table in 326 IAC 6-3-2(e)(2), provided the concentration of particulate in the discharge gases to the atmosphere is less than one-tenth (0.10) pound per one thousand (1,000) pounds of gases:

In order to comply with the allowable rate of emission, the baghouse shall be in operation at all times when the source is in operation. The allowable rate of emission can be calculated as follows:

Interpolation of the data in the table in 326 IAC 6-3-2(e)(2) for the process weight rates up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

and interpolation and extrapolation of the data in the table in 326 IAC 6-3-2(e)(2) for the process weight rates in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour, and} \\ P = \text{process weight rate in tons per hour}$$

This registration the first registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

**Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source. If you have any questions on this matter, please contact Nathan C. Bell, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 317-234-3350 or at 1-800-451-6027 (ext 43350).

Sincerely,
Original signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

NCB

cc: File - DeKalb County
DeKalb County Health Department
IDEM Northern Regional Office
Air Compliance Section Inspector - Doyle Houser
Permit Tracking
Compliance Data Section
Administrative and Development

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	Therma Tru Corporation
Address:	Waterloo Industrial Park, 105 Industrial Parkway, Waterloo, IN 46793
City:	Waterloo
Authorized individual:	Bruce Wesner
Phone #:	(260) 868-5811 (Extension 2150)
Registration #:	033-19853-00094

I hereby certify that Therma Tru Corporation is still in operation and is in compliance with the requirements of Registration 033-19853-00094.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name: Therma Tru Corporation
Source Location: Waterloo Industrial Park, 105 Industrial Parkway, Waterloo, IN 46793
County: DeKalb
SIC Code: 3442 (Manufacturing of Metal Doors, Sash, Frames, Molding, and Trim)
3089 (Manufacturing of Miscellaneous Plastic Products, N.E.C.)
Application No.: 033-19853-00094
Reviewer: Nathan C. Bell

On November 19, 2004, the Office of Air Quality (OAQ) received an application from Therma Tru Corporation relating to the operation of a stationary patio door manufacturing and assembling plant.

New Emission Units and Pollution Control Equipment

The application includes information relating to the construction and operation of the following:

- (a) One (1) patio door frame manufacturing operation, consisting of cutting, sawing, drilling, and/or routing of wood, with a maximum throughput capacity of 270 patio door units per day, and with particulate emissions from each of the emission units controlled by one (1) baghouse dust collector, with a control efficiency of 99%, a maximum gas flow rate of twelve thousand (12,000) actual cubic feet per minute (acfm), and exhausting to Stack 1. The source consists of the following emission units:
- (1) One (1) computerized numerically controlled (CNC) machine for cutting, drilling, and/or routing of wood;
 - (2) Five (5) Mitre chop saws for cutting of wood;
 - (3) One (1) table saw for cutting of wood;
 - (4) One (1) radial arm saw for cutting of wood;
 - (5) Three (3) Jamb machines for drilling and/or routing of wood;

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Enforcement Issues

There are no enforcement actions pending against this emission source.

Stack Summary

Stack ID	Operation	Height (ft)	Outlet Dimensions (ft)	Flow Rate (acfm)	Temperature (°F)
1	Baghouse Exhaust	TBD	TBD	12,000	ambient

Recommendation

The staff recommends to the Commissioner that the application be approved as a registration. 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 November 19, 2004.

Emission Calculations

The proposed operation will generate PM and PM10 emissions due to the cutting, drilling, and/or routing of wood. The following calculations determine the unrestricted potential emissions and the estimated emissions after controls.

(a) Potential Emissions Before Controls:

The potential to emit (PTE) of pollutants from the entire source was provided by the source in the permit application. The source calculated the PTE based on a mass balance approach. Assuming the worst case, each door unit will generate approximately 3 pounds of wood scrap material. Only 10% of the scrap materials generated will be potentially emitted as air emissions, while the other 90% is composed of larger particles that will drop or settle to the floor. Based on a maximum throughput of 11.25 patio door units per hour (270 units per day), 24 hours of operations per day, and 365 days of operation per year, the PTE of particulate matter (PM/PM10) from all operations combined total 14.78 tons per year before controls.

$$3 \text{ lb scrap/unit} * 0.10 \text{ lb PM/lb scrap} * 270 \text{ units/day} * 365 \text{ days/yr} * (1 \text{ ton PM}) / (2000 \text{ lb PM}) = 14.78 \text{ tons PM/yr}$$

(b) Potential Emissions After Controls:

The particulate (PM/PM10) emissions from all operations combined will be controlled by one baghouse at a control efficiency of 99%. Therefore, the PTE of particulate matter (PM/PM10) after controls is 0.15 tons PM/yr.

$$14.78 \text{ tons PM/yr} * (1 - 0.99) = 0.15 \text{ tons PM/yr}$$

Potential To Emit Before Controls

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

The following table reflects the existing source potential to emit. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit:

Pollutant	Potential To Emit (tons/year)
PM	14.78
PM-10	14.78
SO ₂	negligible
NO _x	negligible
VOC	negligible
CO	negligible

Hazardous Air Pollutants (HAPs)	Potential to Emit (tons/yr)
All HAPs	negligible
Worst Single HAP	negligible
Combined HAPs	negligible

- (a) The PTE (as defined in 326 IAC 2-1.1-1(16)) of regulated criteria pollutants are less than twenty-five (25) tons per year, but the PTE of particulate matter (PM or PM-10) is greater than five (5) tons per year and/or the PTE of all other regulated criteria pollutants are greater than ten (10) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5. A registration will be issued.
- (b) The PTE (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

County Attainment Status

The source is located in DeKalb County.

Pollutant	Status
PM10	Attainment or Unclassifiable
SO ₂	Attainment
NO ₂	Attainment or Unclassifiable
1-Hour Ozone	Attainment or Unclassifiable
8-Hour Ozone	Attainment or Unclassifiable
CO	Attainment or Unclassifiable
Lead	Attainment or Unclassifiable

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standard. DeKalb County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) DeKalb County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (c) Fugitive Emissions
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

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

Pollutant	Emissions (tons/yr)
PM	0.15
PM-10	0.15
SO ₂	negligible
NO _x	negligible
VOC	negligible
CO	negligible
Worst Single HAP	negligible
Combination HAPs	negligible

- (a) This existing source is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the PTE of:

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

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in the permit for this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This source will be constructed after the applicability date of August 7, 1977, however, it is not one of the 28 listed source categories defined in 326 IAC 2-2-1(y)(1), no major modifications were done to this source, and the uncontrolled potential to emit of all attainment regulated pollutants is less than 250 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

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

The requirements of 326 IAC 2-4.1 are not applicable to this source, since the potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year.

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15)

minutes (sixty (60) readings) in a six (6) hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.

State Rule Applicability - Individual Facilities

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

The requirements of 326 IAC 6-3 are applicable to each of the individual emission units at this source. Pursuant to 326 IAC 6-3-2(e)(2), any manufacturing process not exempt under 326 IAC 6-3-1(b) or (c) and to which the control methods in 326 IAC 6-3-2 (b) through (d) do not apply shall calculate allowable particulate emissions as follows:

- (1) No person shall operate any manufacturing process so as to produce, cause, suffer, or allow particulate to be emitted in excess of the amount shown in the table in 326 IAC 6-3-2(e)(2). The allowable rate of emission shall be based on the process weight rate for a manufacturing process.
- (2) When the process weight rate is less than one hundred (100) pounds per hour, the allowable rate of emission is five hundred fifty-one thousandths (0.551) pound per hour.
- (3) When the process weight exceeds two hundred (200) tons per hour, the allowable emission may exceed that shown in the table in 326 IAC 6-3-2(e)(2), provided the concentration of particulate in the discharge gases to the atmosphere is less than one-tenth (0.10) pound per one thousand (1,000) pounds of gases:

In order to comply with the allowable rate of emission, the baghouse shall be in operation at all times when the source is in operation. The allowable rate of emission can be calculated as follows:

Interpolation of the data in the table in 326 IAC 6-3-2(e)(2) for the process weight rates up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

and interpolation and extrapolation of the data in the table in 326 IAC 6-3-2(e)(2) for the process weight rates in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour, and} \\ P = \text{process weight rate in tons per hour}$$

326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)

The requirements of 326 IAC 8-1-6 are not applicable, since each of the emission units at this source does not have the potential to emit greater than twenty-five (25) tons of VOCs per year.

Conclusion

The operation of this source shall be subject to the conditions of the attached registration, No 033-19853-00094.