

Mr. Brett Mueller
ThermaTru Corporation
108 Mutzfeld Road
Butler, IN 46721

Re: **033-11940**
Second Significant Permit Modification to
Part 70 033-7927-00019

Dear Mr. Mueller:

ThermaTru Corporation was issued a permit on November 12, 1999 for a stationary metal doors, sash and trim plastics products manufacturing plant. A letter requesting a changes in the descriptive information pertaining to the emissions units in the First Significant Permit Modification 033-11605 and the addition of more insignificant activities was received on February 28, 2000. The changes are as follows with deleted language as ~~strikeouts~~ and new language **bolded**. Pursuant to the provisions of 326 IAC 2-7-11, the permit is hereby administratively amended as follows:

The information describing the process contained in this facility description box is descriptive information.

1. The source has requested that the throughput for the two (2) calcium carbonate silos, known as SILO2 and SILO3, should have been listed as 8,880 pounds per hour each rather than 2,960 pounds per hour each. In addition, the source has indicated that recalculations indicate that the holding capacities of these two (2) silos are 200,000 pounds each rather than 150,000 pounds as stated in the application. The source modification application showed the throughput for three (3) silos was 8,880 pounds per hour, and the assumption was that the throughput was a total rather than for each silo. The potential emission calculations are not affected by this change, since they were calculated based on the specifications for the baghouse control. Therefore, item (14) of the equipment list in Condition A.2 and Section D.5 have been revised as follows:

- (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** ~~2,960~~ pounds of calcium carbonate per hour each, capacity: **200,000** ~~150,000~~ pounds calcium carbonate, each.

Furthermore, since the throughputs for the two (2) silos have been corrected, the allowable PM emission rate stated in Condition D.5.4(b) have been relaxed as follows:

D.5.4 Particulate Matter (PM) [326 IAC 6-3]

- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the calcium carbonate silos, known as SILO2 and SILO3, shall not exceed **11.1** ~~5.33~~ pounds per hour each when operating at a process weight rate of **4.44** ~~1.48~~ tons per hour each.

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:

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

2. The source has requested to add a resin mixer to the one (1) resin mixer listed. The potential emissions calculations are not affected by the addition of another mixer because they were based on the process throughput with a three (3%) volatilization rate, neither of which is changing. Therefore, item (15) of the equipment list in Condition A.2 and Section D.5 have been revised as follows:

(15) **Two (2) ~~One (1)~~ 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.
3. The source has requested to add three (3) sheet molding presses to the one (1) sheet molding press listed. The potential emissions calculations are not affected by the addition of three (3) presses because they were based on the process throughput with a three (3%) volatilization rate, neither of which is changing. Therefore, item (17) of the equipment list in Condition A.2 and Section D.5 have been revised as follows:

(17) **Four (4) ~~One (1)~~ sheet molding compound presses**, **total** throughput 18,500 pounds of sheet molding compound per hour.
4. In addition to the insignificant heaters, with a total rating of 48.4 million British thermal units per hour, and exhaust fans that were in the First Significant Source Modification 033-10998, the source has requested the following additions and changes to the insignificant combustion units and exhaust fans as follows:

New Doors Warehouse (Insignificant Activities)

- (a) ~~Six (6) space heaters, known as M-MAU-1 and M-MAU-2, rated at 8.80 million British thermal units per hour, each, and M-MAU-3 through M-MAU-6, rated at 0.550 million British thermal units per hour, each.~~
- (a) **Four (4) heating units, HV-1101 through HV-1104, rated at 9.625 million British thermal units per hour, each**
- (b) **Four (4) makeup air units, known as HV-1105 through HV-1108, rated at 0.529 million British thermal units per hour each,**
- (c) **One (1) air curtain, known as DA-1101, rated at 0.350 million British thermal units per hour.**
- (d) **One (1) York unit, known as HVAC-101, rated at 0.080 million British thermal units per hour.**
- (e) **One (1) Sterling unit, known as HVAC-102, rated at 0.179 million British thermal units per hour.**

- (f) **Ten (10)** ~~Four (4)~~ exhaust fans.

New Skins Warehouse (Insignificant Activities)

- (a) **Two (2)** ~~Six (6)~~ space heaters, known as **HV-2101 M-MAU-1** and **HV-2102 M-MAU-2**, rated at **9.625** ~~8.80~~ million British thermal units per hour each, and ~~M-MAU-3 through M-MAU-6~~, ~~rated at 0.550 million British thermal units per hour, each.~~
- (b) **One (1)** air curtain, known as **DA-2101**, rated at **0.350 million British thermal units per hour.**
- (c) **Seven (7)** ~~Four (4)~~ exhaust fans.

In addition, the source has requested that the following be added:

SMC Machine and Storage Area

- (a) **Six (6)** heating/cooling units, known as **RTU-1-A through RTU-1-F**, rated at **0.22161 million British thermal units per hour each.**
- (b) **One (1)** heating/cooling unit, known as **RTU-2**, rated at **0.17652 million British thermal units per hour.**
- (c) **Three (3)** heating/cooling units, known as **RTU-3-A through RTU-3-C**, rated at **0.27009 million British thermal units per hour each.**
- (d) **Two (2)** heating/cooling units, known as **RTU-4-A and RTU-4-B**, rated at **0.06744 million British thermal units per hour each.**
- (e) **Fourteen (14)** exhaust fans.

The addition of these insignificant activities and the changes in ratings of certain units insignificant combustion units in the First Significant Source Modification does not change the conclusion that the source modification was minor with respect to 326 IAC 2-2 (PSD). The natural gas combustion insignificant activities are incorporated into Condition A.3 (1) which does not change. The total rating of the insignificant natural gas-fired combustion units went from 48.4 to 63.3 million British thermal units per hour. The largest increase in potential to emit was for NO_x which increased by 6.52 tons per year as shown in the attached spreadsheet on page 1 of 1 of Appendix A.

5. The source has requested the addition of seven (7) resin holding tanks, which qualify as insignificant activities and have been added to the list of insignificant activities as item (14) of Condition A.3 as follows:

- (14) **Seven (7) resin holding tanks consisting of three (3) tanks, known as A Side-1, A Side-2 and A Side-3, capacity: 1,500 gallons of resin each, and four (4) tanks, known as B Side 1 through B Side-4, capacity: 80 gallons of resin each.**

6. In addition, the source has notified IDEM that the stack parameters for Stacks 17.1 and 17.2 shown in the TSD for SSM 033-10998 have been revised as follows:

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
Door Assembly Line 6.8	Door skin preheat (D2-OV1), glue curing (D2-OV2) & skin reheat (D2-OV3) ovens and adhesive application station (D2-APP1)	30	3.19	8,000	70
7.2	Door skin preheat (D2-OV1), glue curing (D2-OV2) & skin reheat (D2-OV3) ovens and adhesive application station (D2-APP1)	30	3.09	8,000	70
18.1	Door skin preheat oven (D2-OV1)	30	n/a	n/a	n/a
18.2	Adhesive application station (D2-APP1) and glue curing (D2-OV2)	30	2.3	4,134	150
18.3	Skin reheat oven (D2-OV3)	30	1.25	1,500	150
19.1	Foam injection system (D2-F1)	30	2.3	5,000	70
20.1	Dust collector (D2-DC1)	12.5	3.0	45,000	70
Molding/ SMC2 17.1	Resin tanks (B1-B8), resin mixer, SMC extruder, and hose cleaning tank	30	5.19 3.04	25,000 11,087	70
17.2	Resin tanks (B1-B8), resin mixer, SMC extruder, and hose cleaning tank	30	5.19 3.04	25,000 11,087	70
25.1, 25.2 & 25.3	Silo vent dust collectors	60	0.25	2,000	70

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

ThermaTru Corporation
Butler, Indiana
Permit Reviewer:MES

Page 5 of 5
Permit Modification No. 033-11940

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, please 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
North 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

**ThermaTru 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	Pages Affected: 5a, 6, 39f and 39h
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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):

- (1) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- (2) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- (3) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (4) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (5) Water based adhesives that are less than or equal to 5% by volume of VOC's excluding HAPs.
- (6) Paved and unpaved roads and parking lots with public access.
- (7) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic feet and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking.
- (8) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C).
- (9) A laboratory as defined in 326 IAC 2-7-1(21)(C).
- (10) One foam press with VOC emissions less than 3 lb/hr and 15 lbs/day.
- (11) Two five thousand (5,000) gallon tanks storing urethane system resin component with VOC emissions less than 3 lb/hr and 15 lbs/day.
- (12) Two five thousand (5,000) gallon tanks storing polymethylene polyphenylisocyanate (poly) with VOC emissions less than 3 lb/hr and 15 lbs/day.
- (13) Six (6) above ground resin storage tanks, known as B3-B8 or MTANK-3 through MTANK-8, exhausting through Stack 17.1 and/or Stack 17.2, capacity: 10,000 gallons each, throughput 4,700 pounds of resin per hour with VOC emissions less than 3 lbs/hr and 15 lbs/day.
- (14) Seven (7) resin holding tanks consisting of three (3) tanks, known as A Side-1, A Side-2 and A Side-3, capacity: 1,500 gallons of resin each, and four (4) tanks, known as B Side 1 through B Side-4, capacity: 80 gallons of resin each.

A.4 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:

- (a) it is a major source, as defined in 326 IAC 2-7-1(22); and
- (b) it is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.5 FACILITY OPERATION CONDITIONS

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

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).

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

The total potential to emit VOCs from the sheet molding compound production line shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period. The total potential to emit VOCs shall be calculated by multiplying the total mass of volatile organic compounds (VOC) in resins applied to the applicators times a flashoff factor of three percent (3%) from AP-42 or a lower emission factor substantiated by a performance test. In addition, any VOCs delivered to the applicators from the use of clean-up solvents and other materials shall be included in the total potential to emit VOCs from the sheet molding compound production line. Therefore, this VOC emission limit will render 326 IAC 8-1-6 not applicable to the sheet molding compound production line.

D.5.2 HAPs [326 IAC 2-1-3.4]

The total potential to emit a single and combination of HAPs from the sheet molding compound production line shall be limited to less than ten (10) and twenty-five (25) tons per twelve (12) consecutive month period, respectively. The total potential to emit HAPs shall be calculated by multiplying the total mass of HAPs in resins applied to the applicators times a flashoff factor of

U.S. EPA as a SIP revision.

- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.5.4 Particulate Matter (PM) [326 IAC 6-3]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the sheet molding compound production line shall not exceed 18.2 pounds per hour when operating at a process weight rate of 9.25 tons 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 (Process Operations), the allowable PM emission rate from the calcium carbonate silos, known as SILO2 and SILO3, shall not exceed 11.1 pounds per hour each when operating at a process weight rate of 4.44 tons per hour each.

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:

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

D.5.5 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 sheet molding compound production line, including the hose cleaning re-circulation station, (cold cleaner tank, known as SMC-CC2).

Compliance Determination Requirements [326 IAC 2-1.1-11] [326 IAC 2-7-6(1)]

D.5.6 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-1.1-11]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facilities are in compliance. If testing is required by IDEM, compliance with the PM limits specified in Condition D.5.4 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Significant Permit Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	ThermaTru Corporation
Source Location:	108 Mutzfeld Road, Butler, IN 46721
County:	Dekalb
SIC Code:	3442
Operation Permit No.:	T 033-7972-00019
Operation Permit Issuance Date:	November 12, 1998
Permit Modification No.:	SPM 033-11940-00019
Permit Reviewer:	Mark L. Kramer

The Office of Air Management (OAM) has reviewed a modification application from ThermaTru Corporation relating to the operation of a stationary metal doors, sash and trim plastics products manufacturing plant.

History

A letter requesting changes in the descriptive information pertaining to the emissions units in the First Significant Permit Modification 033-11605 and the addition of more insignificant activities was received on February 28, 2000 with additional information received April 6, 2000. A Significant Permit Modification SPM 033-11940-00019 has been proposed to incorporate these emission units and insignificant activities.

Permit Modification

Pursuant to 326 IAC 2-7-12(d), this proposed significant permit modification to the Part 70 Operating Permit, T 033-7972-00019, issued on November 12, 1998, is required to revise the Part 70 Operating Permit. A significant permit modification is required due to the proposed relaxation in allowable particulate matter (PM) emissions pursuant to 326 IAC 6-3-2. The increase in the throughput of the two (2) calcium carbonate silos, known as SILO2 and SILO3, results in an increase in allowable PM emissions as discussed below.

The changes are shown with deleted language as ~~strikeouts~~ and new language **bolded** and are as follows:

1. The source has requested that the throughput for the two (2) calcium carbonate silos, known as SILO2 and SILO3, should have been listed as 8,880 pounds per hour each rather than 2,960 pounds per hour each. In addition, the source has indicated that recalculations indicate that the holding capacities of these two (2) silos are 200,000 pounds each rather than 150,000 pounds as stated in the application. The source modification application showed the throughput for three (3) silos was 8,880 pounds per hour, and the assumption was that the throughput was a total rather than for each silo. The potential emission calculations are not affected by this change, since they were calculated based on the specifications for the baghouse control. Therefore, item (14) of the equipment list in Condition A.2 and Section D.5 have been revised as follows:

- (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~~ **2,960** pounds of calcium carbonate per hour each, capacity: ~~200,000~~ **150,000** pounds calcium carbonate, each.

Furthermore, since the throughputs for the two (2) silos have been corrected, the allowable PM emission rate stated in Condition D.5.4(b) have been relaxed as follows:

D.5.4 Particulate Matter (PM) [326 IAC 6-3]

- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the calcium carbonate silos, known as SILO2 and SILO3, shall not exceed ~~11.1~~ **5.33** pounds per hour each when operating at a process weight rate of ~~4.44~~ **1.48** tons per hour each.

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:

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

2. The source has requested to add a resin mixer to the one (1) resin mixer listed. The potential emissions calculations are not affected by the addition of another mixer because they were based on the process throughput with a three (3%) volatilization rate, neither of which is changing. Therefore, item (15) of the equipment list in Condition A.2 and Section D.5 have been revised as follows:

- (15) ~~Two (2) One (1)~~ 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.

3. The source has requested to add three (3) sheet molding presses to the one (1) sheet molding press listed. The potential emissions calculations are not affected by the addition of three (3) presses because they were based on the process throughput with a three (3%) volatilization rate, neither of which is changing. Therefore, item (17) of the equipment list in Condition A.2 and Section D.5 have been revised as follows:

- (17) ~~Four (4) One (1)~~ sheet molding compound presses, **total** throughput 18,500 pounds of sheet molding compound per hour.

4. In addition to the insignificant heaters, with a total rating of 48.4 million British thermal units per hour, and exhaust fans that were in the First Significant Source Modification 033-10998, the source has requested the following additions and changes to the insignificant combustion units and exhaust fans as follows:

New Doors Warehouse (Insignificant Activities)

- (a) ~~Six (6) space heaters, known as M-MAU-1 and M-MAU-2, rated at 8.80 million British thermal units per hour, each, and M-MAU-3 through M-MAU-6, rated at 0.550 million British thermal units per hour, each.~~

- (a) **Four (4) heating units, HV-1101 through HV-1104, rated at 9.625 million British**

thermal units per hour, each

- (b) **Four (4) makeup air units, known as HV-1105 through HV-1108, rated at 0.529 million British thermal units per hour each,**
- (c) **One (1) air curtain, known as DA-1101, rated at 0.350 million British thermal units per hour.**
- (d) **One (1) York unit, known as HVAC-101, rated at 0.080 million British thermal units per hour.**
- (e) **One (1) Sterling unit, known as HVAC-102, rated at 0.179 million British thermal units per hour.**
- (f) **Ten (10) ~~Four (4)~~ exhaust fans.**

New Skins Warehouse (Insignificant Activities)

- (a) **Two (2) ~~Six (6)~~ space heaters, known as HV-2101 ~~M-MAU-1~~ and HV-2102 ~~M-MAU-2~~, rated at ~~9.625 8.80~~ million British thermal units per hour each, and ~~M-MAU-3~~ through ~~M-MAU-6~~, rated at 0.550 million British thermal units per hour, each.**
- (b) **One (1) air curtain, known as DA-2101, rated at 0.350 million British thermal units per hour.**
- (c) **Seven (7) ~~Four (4)~~ exhaust fans.**

In addition, the source has requested that the following be added:

SMC Machine and Storage Area

- (a) **Six (6) heating/cooling units, known as RTU-1-A through RTU-1-F, rated at 0.22161 million British thermal units per hour each.**
- (b) **One (1) heating/cooling unit, known as RTU-2, rated at 0.17652 million British thermal units per hour.**
- (c) **Three (3) heating/cooling units, known as RTU-3-A through RTU-3-C, rated at 0.27009 million British thermal units per hour each.**
- (d) **Two (2) heating/cooling units, known as RTU-4-A and RTU-4-B, rated at 0.06744 million British thermal units per hour each.**
- (e) **Fourteen (14) exhaust fans.**

The addition of these insignificant activities and the changes in ratings of certain units insignificant combustion units in the First Significant Source Modification does not change the conclusion that the source modification was minor with respect to 326 IAC 2-2 (PSD). The natural gas combustion insignificant activities are incorporated into Condition A.3 (1) which does not change. The total rating of the insignificant natural gas-fired combustion units went from 48.4 to 63.3 million British thermal units per hour. The largest increase in potential to emit was for NO_x which increased by 6.52 tons per year as shown in the attached spreadsheet on page 1 of 1 of Appendix A.

5. The source has requested the addition of seven (7) resin holding tanks, which qualify as insignificant activities and have been added to the list of insignificant activities as item (14) of Condition A.3 as follows:

(14) Seven (7) resin holding tanks consisting of three (3) tanks, known as A Side-1, A Side-2 and A Side-3, capacity: 1,500 gallons of resin each, and four (4) tanks, known as B Side 1 through B Side-4, capacity: 80 gallons of resin each.

6. In addition, the source has notified IDEM that the stack parameters for Stacks 17.1 and 17.2 shown in the TSD for SSM 033-10998 have been revised as follows:

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
Door Assembly Line 6.8	Door skin preheat (D2-OV1), glue curing (D2-OV2) & skin reheat (D2-OV3) ovens and adhesive application station (D2-APP1)	30	3.19	8,000	70
7.2	Door skin preheat (D2-OV1), glue curing (D2-OV2) & skin reheat (D2-OV3) ovens and adhesive application station (D2-APP1)	30	3.09	8,000	70
18.1	Door skin preheat oven (D2-OV1)	30	n/a	n/a	n/a
18.2	Adhesive application station (D2-APP1) and glue curing (D2-OV2)	30	2.3	4,134	150
18.3	Skin reheat oven (D2-OV3)	30	1.25	1,500	150
19.1	Foam injection system (D2-F1)	30	2.3	5,000	70
20.1	Dust collector (D2-DC1)	12.5	3.0	45,000	70
Molding/ SMC2 17.1	Resin tanks (B1-B8), resin mixer, SMC extruder, and hose cleaning tank	30	5.19 3.04	25,000 11,087	70
17.2	Resin tanks (B1-B8), resin mixer, SMC extruder, and hose cleaning tank	30	5.19 3.04	25,000 11,087	70
25.1, 25.2 & 25.3	Silo vent dust collectors	60	0.25	2,000	70

Conclusion

The operation of this a stationary metal doors, sash and trim plastics products manufacturing plant shall be subject to the conditions of the attached proposed Significant Permit Modification No. SPM 033-11940-00019.

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

Company Name: ThermaTru Corporation
Address City IN Zip: 108 Mutzfeld Rd, Butler, IN 46721
Permit Modification: SPM 033-11940
Plt ID: 033-00019
Reviewer: Mark L. Kramer
Date: February 28, 2000

SPM 033-11940

Insignificant Activities

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

SSM 033-10998

D-MAU-1 through D-MAU-7 and M-MAU-1 through M-MAU-6
D-MAU-1 -3 & M-MAU-1 & 2 = 8.80 mmbtu/hr each
D-MAU-4 -7 & M-MAU-3 - 6 = 0.550 mmbtu/hr each

48.4	SSM 033-10998
63.3	SPM 033-11940

424.0
554.3

	MMbtu/hr
HV-1101-4	38.5
HV-1105-8	2.116
DA-1101	0.35
HVAC-101	0.08
HVAC-102	0.179
HV-V-2101-2	19.25
DA-2101	0.35
RTU1A-F	1.32966
RTU-2 A	0.17652
RTU-3A-C	0.81027
RTU4 A-B	0.13488
Total	63.27633

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr						
SSM 033-10998	0.403	1.61	0.127	21.2	1.17	17.8
SPM 033-11940	0.527	2.106	0.166	27.715	1.524	23.281
Increase From Changes in Insignificant Combustion	0.124	0.495	0.039	6.516	0.358	5.473

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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