



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

TO: Interested Parties / Applicant

DATE: August 29, 2008

RE: Symmetry Medical USA, Inc. / 085-26809-00059

FROM: Matthew Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

## Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

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, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures  
FNPER-AM.dot12/3/07



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## REGISTRATION OFFICE OF AIR QUALITY

**Symmetry Medical USA, Inc**  
**486 West 350 North**  
**Warsaw, IN 46582**

Pursuant to 326 IAC 2-5.1 (Construction of New Sources: Registrations) and 326 IAC 2-5.5 (Registrations), (herein known as the Registrant) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this registration.

Registration No. 085-19142-00059	
Original signed by: Paul Dubenetzky, Chief Permits Branch Office of Air Quality	Issuance Date: September 24, 2004

First Registration Notice-Only Change No. 085-21029-00059, issued on April 7, 2005.  
First Registration Revision No. 085-23056, issued on July 27, 2006.  
Second Registration Notice-Only Change No. 085-24036-00059, issued on December 15, 2006.  
Third Registration Notice-Only Change No. 085-26177-00059 issued on March 27, 2008

Fourth Notice-Only Change No. 085-26809-00059	
Issued by:Original signed by  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: August 29, 2008

## SECTION A

## SOURCE SUMMARY

This registration is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1, A.2 and A.3 is descriptive information and does not constitute enforceable conditions. However, the Registrant 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 Registrant to obtain additional permits pursuant to 326 IAC 2.

### A.1 General Information

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The Registrant owns and operates a stationary manufacturer of medical instruments and surgical appliances & supplies.

Source Address:	486 West 350 North, Warsaw, IN 46582
Mailing Address:	486 West 350 North, Warsaw, IN 46582
General Source Phone Number:	(574) 267-8700
SIC Code:	3841
County Location:	Kosciusko County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Registration

### A.2 Source Definition

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This medical instrument manufacturing company consists of two (2) plants:

- (1) Othy Division (formerly called North Plant), an existing plant, located at 486 West 350 North, Warsaw, Indiana 46582, started operation in 1996 (SIC code: 3842); and
- (2) DDC Plant, a new plant, located at 3724 State Road 15, Warsaw, Indiana 46582, starting operation in 2006 (SIC code: 3842).

Since the two (2) plants have the same SIC codes, manufacture the same products, are owned by the same company, and the DDC Plant is adjacent to the Othy Division (less than one mile apart), IDEM, OAQ has determined in Registration Revision 085-23056-00059 issued July 27, 2006, that the Othy Division and the DDC Plant are considered a single source.

### A.3 Emission Units and Pollution Control Equipment Summary

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

The following emission units are located at the Othy Division:

- (a) One (1) polishing process with a maximum throughput rate of 200 lbs/hr, consisting of the following:
  - (1) Twenty-one (21) polishing jacks, identified as PJC-01 through PJC-21, each controlled by a dust collector.
- (b) One (1) polishing process with a maximum throughput rate of 172 lbs/hr, constructed in 2004, consisting of the following:
  - (1) Four (4) Glass Bead Blasters, identified as SB-1 through SB-4, using glass beads as the blast media, each controlled by a dust collector.
- (c) Six (6) parts washers, identified as W1 through W6, four constructed in 2004 and two in 2008, each with a maximum solvent usage less than 145 gallons per 12 months, using non-halogenated solvents.

- (d) One (1) metal fabrication, machining, and milling process, with a maximum throughput rate of 200 lbs/hr, consisting of the following:
- (1) Seven (7) CNC Grinders, coolant flooded with less than 1% by weight of VOC, no emissions.
  - (2) Fifteen (15) CNC lathes.
  - (3) Twenty-one (21) CNC Mill.
  - (4) Nine (9) EDM Wire.
  - (5) Cutting and grinding instruments.
  - (6) Two (2) tungsten inert gas (TIG) stations, each with a maximum wire consumption rate less than 625 lbs/day.
  - (7) One (1) EDM Ram.
  - (8) Two (2) laser cutters.
  - (9) Two (2) electric ovens.
  - (10) Four (4) hydraulic presses.
- (e) Nineteen (19) natural gas fired heaters, including the following:
- (1) One (1) natural gas fired heater, identified as H-1, with a maximum heat input capacity of 0.8 MMBtu/hr.
  - (2) One (1) natural gas fired heater, identified as H-2, with a maximum heat input capacity of 0.17 MMBtu/hr.
  - (3) Two (2) natural gas fired heaters, identified as H-3 and H-4, each with a maximum heat input capacity of 0.1 MMBtu/hr.
  - (4) One (1) natural gas fired heater, identified as H-5, with a maximum heat input capacity of 0.08 MMBtu/hr.
  - (5) One (1) natural gas fired heater, identified as H-6, with a maximum heat input capacity of 0.15 MMBtu/hr.
  - (6) One (1) natural gas fired heater, identified as H-7, with a maximum heat input capacity of 0.154 MMBtu/hr.
  - (7) One (1) natural gas fired heater, identified as HVAC#1, with a maximum heat input capacity of 1.2 MMBtu/hr.
  - (8) One (1) natural gas fired heater, identified as HVAC#2, with a maximum heat input capacity of 0.6 MMBtu/hr.
  - (9) One (1) natural gas fired heater, identified as HVAC#3, with a maximum heat input capacity of 0.8 MMBtu/hr.
  - (10) One (1) natural gas fired heater, identified as HVAC#4, with a maximum heat input capacity of 1.5 MMBtu/hr.

- (11) One (1) natural gas fired heater, identified as HVAC#5, with a maximum heat input capacity of 0.5 MMBtu/hr.
  - (12) One (1) natural gas fired heater, identified as HVAC#6, with a maximum heat input capacity of 0.6 MMBtu/hr.
  - (13) One (1) natural gas fired heater, identified as HVAC#7, with a maximum heat input capacity of 0.9 MMBtu/hr.
  - (14) Two (2) natural gas fired heaters, identified as HVAC#8 and HVAC#9, each with a maximum heat input capacity of 0.188 MMBtu/hr.
  - (15) Two (2) natural gas fired heaters, identified as HVAC#10 and HVAC#11, each with a maximum heat input capacity of 0.388 MMBtu/hr.
  - (16) One (1) natural gas fired heater, identified as ID48, with a maximum heat input capacity of 0.049 MMBtu/hr.
- (f) Two (2) natural gas-fired water evaporators, identified as EV-01 and EV-02, constructed in 2005, each with a maximum heat input capacity of 0.2 MMBtu/hr, and exhausting to stack vents EVSV-01 and EVSV-02, respectively.
  - (g) One (1) natural gas fired heater, identified as #3107, constructed in 2004, with a maximum heat input capacity of 0.4 MMBtu/hr.
  - (h) One (1) Cut-off saw.
  - (i) One (1) ROBO-Drill.
  - (j) Three (3) Laser Etch stations.

The following emission units are located at the DDC Plant:

- (a) One (1) polishing process with a maximum throughput rate of 172 lbs/hr, constructed in 2004, consisting of the following:
  - (1) Four (4) polishing jacks, identified as D-1 through D-4, each controlled by a dust collector.
  - (2) One (1) Glass Bead blaster, identified as SB-5, using glass beads as the blast media, and controlled by a dust collector.
- (b) One (1) parts washer, identified as W7, constructed in 2008, with a maximum solvent usage less than 145 gallons per 12 months, using non-halogenated solvents.
- (c) One (1) TIG welder, with a maximum metal consumption of 2.43 lbs/hr.
- (d) Three (3) natural gas-fired HVAC units, identified as HVAC#12, HVAC#13, and HVAC#14, each with a heat input rate of 0.324 MMBtu/hr.
- (e) Three (3) natural gas-fired HVAC units, identified as HVAC#15, HVAC#16, and HVAC#17, each with a heat input rate of 0.23 MMBtu/hr.
- (f) One (1) natural gas-fired resident shop heater, identified as RSH-1, with a heat input rate of 0.165 MMBtu/hr.
- (g) Three (3) CNC Lathes.

- (h) Nine (9) CNC Mills.
- (i) Four (4) EDM wire units, coolant flooded with less than 1% by weight of VOC.
- (j) One (1) Laser Etch station.
- (k) One (1) EDM Ram, coolant flooded with less than 1% by weight of VOC.

## SECTION B

## GENERAL CONDITIONS

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

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

### B.2 Effective Date of Registration [IC 13-15-5-3]

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Pursuant to IC 13-15-5-3, this registration is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

### B.3 Registration Revocation [326 IAC 2-1.1-9]

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Pursuant to 326 IAC 2-1.1-9 (Revocation), this registration to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this registration.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this registration.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this registration shall not require revocation of this registration.
- (d) For any cause which establishes in the judgment of IDEM, the fact that continuance of this registration is not consistent with purposes of this article.

### B.4 Prior Permits Superseded [326 IAC 2-1.1-9.5]

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- (a) All terms and conditions of permits established prior to Registration No. 085-19142-00059 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted.
- (b) All previous registrations and permits are superseded by this registration.

### B.5 Annual Notification [326 IAC 2-5.1-2(f)(3)] [326 IAC 2-5.5-4(a)(3)]

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Pursuant to 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3):

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

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, IN 46204-2251

- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

**B.6 Source Modification Requirement [326 IAC 2-5.5-6(a)]**

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Pursuant to 326 IAC 2-5.5-6(a), 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.

**B.7 Registrations [326 IAC 2-5.1-2(i)]**

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Pursuant to 326 IAC 2-5.1-2(i), this registration does not limit the source's potential to emit.

**SECTION C**

**SOURCE OPERATION CONDITIONS**

Entire Source

**Emission Limitations and Standards [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]**

**C.1 Opacity [326 IAC 5-1]**

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

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

**C.2 Fugitive Dust Emissions [326 IAC 6-4]**

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

**SECTION D EMISSION UNIT OPERATION CONDITIONS**

Emission Unit Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

Emission units located at the Othy Division:

- (a) One (1) polishing process with a maximum throughput rate of 200 lbs/hr, consisting of the following:
  - (1) Twenty-one (21) polishing jacks, identified as PJC-01 through PJC-21, each controlled by a dust collector.
- (b) One (1) polishing process with a maximum throughput rate of 172 lbs/hr, constructed in 2004 consisting of the following:
  - (1) Four (4) Glass Bead Blasters, identified as SB-1 through SB-4, using glass beads as the blast media, each controlled by a dust collector.
- (c) Six (6) parts washers, identified as W1 through W6, four constructed in 2004 and two in 2008, each with a maximum solvent usage less than 145 gallons per 12 months, using non-halogenated solvents.

Emission units located at the DDC Plant:

- (a) One (1) polishing process with a maximum throughput rate of 172 lbs/hr, constructed in 2004, consisting of the following:
  - Four (4) polishing jacks, identified as D-1 through D-4, each controlled by a dust collector.
  - One (1) Glass Bead blaster, identified as SB-5, using glass beads as the blast media, and controlled by a dust collector.
- (b) One (1) parts washer, identified as W7, constructed in 2008, with a maximum solvent usage less than 145 gallons per 12 months, using non-halogenated solvents.

(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 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]**

**D.1.1 Particulate Emission Limitations for Manufacturing Process [326 IAC 6-3]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of the following processes shall be limited to the pounds per hour limits listed in the table below:

Process	Max Throughput Rate (lbs/hr)	Particulate Emission Limit (lbs/hr)
Metal Fabricating Process at Othy Division and DDC Plant	200	0.88
Polishing Process at Othy Division (PJC01 through PJC21)	200	0.88
Machining and Milling Process at Othy Division	181	0.82
Polishing Process at Othy Division and DDC Plant (D1 through D4 and SB1 through SB5)	172	0.79

The pounds per hour limitations were calculated using the following equation:

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:

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

#### D.1.2 Volatile Organic Compounds [326 IAC 8-3-2]

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Pursuant to 326 IAC 8-3-2, for each of parts washers (W1 through W7), the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements; and
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

#### D.1.3 Volatile Organic Compoundss [326 IAC 8-3-5]

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- (a) Pursuant to 326 IAC 8-3-5(a), the owner or operator shall ensure that the following control equipment requirements are met for each of the parts washers (W1 through W7):
  - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) the solvent volatility is greater than two (2) kilopascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38 °C) (one hundred degrees Fahrenheit (100 °F));
    - (B) the solvent is agitated; or
    - (C) the solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater that four and three-tenths (4.3) kilopascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38 °C) (one hundred degrees Fahrenheit (100 °F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreaser with one (1) of the following control devices if the solvent

volatility is greater than four and three-tenths (4.3) kilopascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38 °C) (one hundred degrees Fahrenheit (100 °F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9 °C) (one hundred twenty degrees Fahrenheit (120 °F)):

- (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
  - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b), the owner or operator shall ensure that the following operating requirements are met for each of the parts washers (W1 through W7):
- (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.

### **Compliance Determination Requirements**

#### **D.1.4 Particulate Control**

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The dust collectors shall be in operation at all times that the polishing jacks (units PJC 01-PJC-21, D-1 through D4, and glass bead blasters (SB-1 through SB5) are in operation.

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

**REGISTRATION  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3).

<b>Company Name:</b>	Symmetry Medical USA, Inc.
<b>Address:</b>	486 West 350 North
<b>City:</b>	Warsaw, Indiana 46582
<b>Phone Number:</b>	(574) 267-8700
<b>Registration No.:</b>	085-19142-00059

I hereby certify that Symmetry Medical USA, Inc. is :

- still in operation.
- no longer in operation.

I hereby certify that Symmetry Medical USA, Inc. is :

- in compliance with the requirements of Registration No. 085-19142-00059.
- not in compliance with the requirements of Registration No. 085-19142-00059.

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

<b>Noncompliance:</b>

# Indiana Department of Environmental Management Office of Air Quality

## Technical Support Document (TSD) for Notice Only Changes to a Registration

### Source Background and Description

<b>Source Name:</b>	<b>Symmetry Medical USA, Inc. – Warsaw</b>
<b>Address (Othy Division Formerly North Plant):</b>	<b>486 West 350 North, Warsaw, Indiana 46582</b>
<b>Address (DDC Plant):</b>	<b>3724 State Road 15, Warsaw, Indiana 46582</b>
<b>County:</b>	<b>Kosciusko</b>
<b>SIC Code:</b>	<b>3842</b>
<b>Registration No.:</b>	<b>085-19142-00059</b>
<b>Notice Only Change No.:</b>	<b>085-26809-00059</b>
<b>Permit Reviewer:</b>	<b>Janet Mobley</b>

The Office of Air Quality (OAQ) has reviewed an application from Symmetry Medical USA, Inc. – Warsaw (Othy Division and DDC Plant) relating to the operation of an existing stationary stainless steel surgical instrument manufacturing operation.

### History

Symmetry Medical USA, Inc. - Warsaw was issued a registration (085-19142-00059) for the manufacturing of stainless steel surgical instruments on September 24, 2004.

On July 28, 2008, the Office of Air Quality (OAQ) received an application from Symmetry Medical USA, Inc. - Warsaw requesting an administrative amendment to the registration to show recent changes in equipment. In preparing the application, the source discovered that the current registration (085-26177-00059) that was issued on March 27, 2008, did not reflect the changes made in the previous revision. The changes noted in this TSD refer to the revision (085-24026-00059) that was issued December 15, 2006.

IDEM no longer lists the name or title of the Authorized Individual (AI) in registrations, however IDEM will continue to update the AI in the database. Mr. Paul Sparkman, Environmental Management System Rep., is now the authorized individual listed in the database.

The source consists of two plants (Othy Division - formerly the North Plant and the DDC Plant) that are considered to be a single source (see "Source Definition" below). In 2006 the source terminated all activities at the Boeing Plant, which was located at 2094 North Boeing Plant, Warsaw, Indiana 46582.

### Source Definition

This medical instrument manufacturing company consists of two (2) plants:

- (1) Othy Division (formerly the North Plant), located at 486 West 350 North, Warsaw, Indiana 46582, started operation in 1996 (SIC code: 3842); and

- (2) DDC Plant, located at 3724 State Road 15, Warsaw, Indiana 46582, started operation in 2006 (SIC code: 3842).

Since the two (2) plants have the same SIC codes, manufacture the same products, are owned by the same company, and the DDC Plant is adjacent to the Othy Division (less than one mile apart), IDEM, OAQ has determined in Registration Revision 085-23056-00059 issued July 27, 2006, that Othy Division and the DDC Plant are considered a single source.

### Existing Approvals

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

- (a) Exemption No. 085-15794-00059, issued on September 12, 2002.
- (b) Registration No. 085-19142-00059, issued on September 24, 2004.
- (c) Registration - Notice Only Change No. 085-21029-00059, issued on April 7, 2005.
- (d) Registration Revision No. 085- 23056-00059 issued on July 27, 2006.
- (e) Registration - Notice Only Change No. 085-24036-00059, issued December 15, 2006; and,
- (f) Registration - Notice Only Change No. 085-26172-00059, issued March 27, 2008.

All conditions from previous approvals were incorporated into this registration.

### County Attainment Status

The source is located in Kosciusko County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.
<sup>1</sup> Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM <sub>2.5</sub> .	

- (a) Ozone Standards

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 ozone. Kosciusko County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) Kosciusko County has been classified as attainment for PM2.5. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD), for PM2.5 emissions, and the effective date of these rules was July 15, 2008. Indiana has three years from the publication of these rules to revise the PSD rules, 326 IAC 2-2 to include those requirements. The May 8, 2008, rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.
- (c) Other Criteria Pollutants  
Kosciusko County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

### **Fugitive Emissions**

The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-5.1-2 (Registrations) applicability.

### **Background and Description of Proposed Changes of Emission Units and Pollution Control Equipment**

The following is a list of changes that should have been in the notice only change (085-26177-00059) that was issued on March 27, 2008, along with the current changes requested by the source. (The currently permitted units refer to the Registration Revision 085-24036-00059 that permitted these units).

CNC Grinder - currently permitted for nine (9) units, and will be reduced to 7.  
CNC Lathe - currently permitted for 39 machines, and will be reduced to 15.  
CNC Mill - currently permitted for 41 machines, and will be reduced to 21.  
MIG w/dust collector - currently permitted for 1, unit will be eliminated  
TIG - currently permitted for eight (8) units, and the units will be eliminated.  
CNC Vertical Machining center - currently permitted for ten (10), all units will be eliminated.  
Oxyacetylene - currently permitted for two (2) units, both units will be eliminated.  
EDM Ram - currently permitted for four (4) units, and will be reduced to one (1) unit.  
Polishing jack with dust collector - currently permitted for forty-four units, and will be reduced to 21.  
Laser Cutter - currently permitted for four (4) units, and will be reduced to two (2) units.  
Standard Lathe - currently permitted for six (6) units, all units will be eliminated.  
Vertical Mill - currently permitted for 11, all units will be eliminated.  
Surface Grinder - currently permitted for 4, all units will be eliminated  
Hydraulic Press - currently permitted for seven (7) units, and will be reduced to four.

The source proposed to add the following units at Othy Division:

EDM Wire - currently permitted for five (5) units, and will be increased to 9  
Parts Washer - currently permitted for four (4) units, and will be increased to 6 units.  
Cut-off Saw - one (1) saw being added.  
Robo-Drill - one (1) drill being added.  
Laser Etch - three (3) stations being added.

The source proposed the following changes to the units at the DDC Plant:

Polishing jack with dust collector - the source is currently permitted for three (3) units, and will be increased to four (4) units.  
Parts Washer - the source is currently permitted for one (1) unit, and this unit will be replaced,  
Using EnSolve - GCS fluid with evaporation less than 3 gallons per month, exhausts inside building.  
Glass Bead Blaster with dust collector - the source is currently permitted for two (2) units, and one unit will be removed.

CNC Lathe - currently not permitted for any units, will be moving three (3) from Othy facility.  
CNC Mill - currently not permitted for any units, will be moving nine (9) from Othy facility.  
EDM Wire - currently not permitted for any units, and will add four (4) units, coolant flooded with less than 1% by weight of VOC.  
Laser Etch - one (1) station will be added.  
EDM Ram - currently not permitted for any units, but will add one unit.

#### **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted emission units operating at this source during this review period.

#### **Permitted Emission Units and Pollution Control Equipment After Changes**

The following emission units are located at the Othy Plant:

- (a) One (1) polishing process with a maximum throughput rate of 200 lbs/hr, consisting of the following:
  - (1) Twenty-one (21) polishing jacks, identified as PJC-01 through PJC-21, each controlled by a dust collector.
- (b). One (1) polishing process with a maximum throughput rate of 172 lbs/hr, constructed in 2004, consisting of the following:
  - (1) Four (4) Glass Bead Blasters, identified as SB-1 through SB-4, using glass beads as the blast media, each controlled by a dust collector.
- (c) Six (6) parts washers, identified as W1 through W6, four constructed in 2004 and 2 in 2008, each with a maximum solvent usage less than 145 gallons per 12 months, using non-halogenated solvents.
- (d) One (1) metal fabrication, machining, and milling process, with a maximum throughput rate of 200 lbs/hr, consisting of the following:
  - (1) Seven (7) CNC Grinders, coolant flooded with less than 1% by weight of VOC, no emissions.
  - (2) Fifteen (15) CNC lathes.
  - (3) Twenty-one (21) CNC Mill.
  - (4) Nine (9) EDM Wire.
  - (5) Cutting and grinding instruments.
  - (6) Two (2) tungsten inert gas (TIG) stations, each with a maximum wire consumption rate less than 625 lbs/day.
  - (7) One (1) EDM Ram.
  - (8) Two (2) laser cutters.
  - (9) Two (2) electric ovens.
  - (10) Four (4) hydraulic presses.

- (e) Nineteen (19) natural gas fired heaters, including the following:
  - (1) One (1) natural gas fired heater, identified as H-1, with a maximum heat input capacity of 0.8 MMBtu/hr.
  - (2) One (1) natural gas fired heater, identified as H-2, with a maximum heat input capacity of 0.17 MMBtu/hr.
  - (3) Two (2) natural gas fired heaters, identified as H-3 and H-4, each with a maximum heat input capacity of 0.1 MMBtu/hr.
  - (4) One (1) natural gas fired heater, identified as H-5, with a maximum heat input capacity of 0.08 MMBtu/hr.
  - (5) One (1) natural gas fired heater, identified as H-6, with a maximum heat input capacity of 0.15 MMBtu/hr.
  - (6) One (1) natural gas fired heater, identified as H-7, with a maximum heat input capacity of 0.154 MMBtu/hr.
  - (7) One (1) natural gas fired heater, identified as HVAC#1, with a maximum heat input capacity of 1.2 MMBtu/hr.
  - (8) One (1) natural gas fired heater, identified as HVAC#2, with a maximum heat input capacity of 0.6 MMBtu/hr.
  - (9) One (1) natural gas fired heater, identified as HVAC#3, with a maximum heat input capacity of 0.8 MMBtu/hr.
  - (10) One (1) natural gas fired heater, identified as HVAC#4, with a maximum heat input capacity of 1.5 MMBtu/hr.
  - (11) One (1) natural gas fired heater, identified as HVAC#5, with a maximum heat input capacity of 0.5 MMBtu/hr.
  - (12) One (1) natural gas fired heater, identified as HVAC#6, with a maximum heat input capacity of 0.6 MMBtu/hr.
  - (13) One (1) natural gas fired heater, identified as HVAC#7, with a maximum heat input capacity of 0.9 MMBtu/hr.
  - (14) Two (2) natural gas fired heaters, identified as HVAC#8 and HVAC#9, each with a maximum heat input capacity of 0.188 MMBtu/hr.
  - (15) Two (2) natural gas fired heaters, identified as HVAC#10 and HVAC#11, each with a maximum heat input capacity of 0.388 MMBtu/hr.
  - (16) One (1) natural gas fired heater, identified as ID48, with a maximum heat input capacity of 0.049 MMBtu/hr.
- (f) Two (2) natural gas-fired water evaporators, identified as EV-01 and EV-02, constructed in 2005, each with a maximum heat input capacity of 0.2 MMBtu/hr, and exhausting to stack vents EVSV-01 and EVSV-02, respectively.
- (g) One (1) natural gas fired heater, identified as #3107, constructed in 2004, with a maximum heat input capacity of 0.4 MMBtu/hr.
- (h) One (1) Cut-off saw.

- (i) One (1) ROBO-Drill.
- (j) Three (3) Laser Etch stations,.

The following emission units are located at the DDC Plant:

- (a) One (1) polishing process with a maximum throughput rate of 172 lbs/hr, constructed in 2004, consisting of the following:
  - (1) Four (4) polishing jacks, identified as D-6 through D-10, each controlled by a dust collector.
  - (2) One (1) Glass Bead blaster, identified as SB-5, using glass beads as the blast media, each controlled by a dust collector.
- (b) One (1) parts washer, identified as W7, constructed in 2008, with a maximum solvent usage less than 145 gallons per 12 months, using non-halogenated solvents.
- (c) One (1) TIG welder, with a maximum metal consumption of 2.43 lbs/hr.
- (d) Three (3) natural gas-fired HVAC units, identified as HVAC#12, HVAC#13, and HVAC#14, each with a heat input rate of 0.324 MMBtu/hr.
- (e) Three (3) natural gas-fired HVAC units, identified as HVAC#15, HVAC#16, and HVAC#17, each with a heat input rate of 0.23 MMBtu/hr.
- (f) One (1) natural gas-fired resident shop heater, identified as RSH-1, with a heat input rate of 0.165 MMBtu/hr.
- (g) Three (3) CNC Lathes.
- (h) Nine (9) CNC Mill.
- (i) Four (4) EDM wire units, coolant flooded with less than 1% by weight of VOC.
- (j) One (1) Laser Etch station.
- (k) One (1) EDM Ram unit, coolant flooded with less than 1% by weight of VOC.

<b>Enforcement Issue</b>
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There are no pending enforcement actions related to this source.

<b>Emission Calculations</b>
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See Appendix A of this TSD for detailed emission calculations.

Based on the previous approvals for this source, emissions of regulated pollutants and hazardous air pollutants (HAPs) are negligible for the following emission units:

- (a) Milling and machining operations (grinders, lathes, milling machines, EDMs, cutting machines, CNC machining centers, EDM rams, presses);
- (b) Electric ovens;
- (c) Tungsten inert gas (TIG) stations

**Permit Level Determination – Registration**

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	Potential To Emit of the Entire Source (tons/year)								
	PM	PM10 *	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	Worst Single HAP
Polishing Jacks and Bead Blasters Dust Collectors	8.84	8.84	8.84	0.00	0.00	0.00	0.00	0.00	0.00
Parts Washers	0.00	0.00	0.00	0.00	0.00	1.27	0.00	0.0	0.00
Natural Gas Combustion Units at Othy	0.07	0.29	0.29	0.02	3.80	0.21	3.19	0.07	0.01
Natural Gas Combustion Units at DDC	0.01	0.06	0.06	0.00	0.78	0.04	0.66	0.01	0.07 (Hexane)
Natural Gas fired heater at Othy	0.01	0.01	0.01	0.0011	0.18	0.01	0.15	0.00	
Fugitive Emissions	-	-	-	-	-	-	-	-	-
<b>Total PTE of Entire Source</b>	<b>8.93</b>	<b>9.20</b>	<b>9.20</b>	<b>0.02</b>	<b>4.76</b>	<b>1.53</b>	<b>4.00</b>	<b>0.08</b>	
Exemptions Levels	5	5	-	10	10	5 or 10	25	25	10
Registration Levels	25	25	-	25	25	25	100	25	10
negl. = negligible * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". Assumption is made PM <sub>10</sub> = PM <sub>2.5</sub>									

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of (*pollutant(s)*) are within the ranges listed in 326 IAC 2-5.5-1(b)(1). The PTE of all other regulated criteria pollutants are less than the ranges listed in 326 IAC 2-5.5-1(b)(1). Therefore, the source is subject to the provisions of 326 IAC 2-5.5 (Registrations).
- (b) The potential to emit (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, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

**Federal Rule Applicability Determination**

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

- (c) This source is not subject to the requirements of the 40 CFR 63 Subpart T (63.460 through 63.470), NESHAP for for Halogenated Solvent Cleaning, because this operation does not use a degreasing solvent that contains any of the halogenated compounds listed in 40 CFR 63.460(a).
- (d) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

<b>State Rule Applicability – Entire Source</b>
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**326 IAC 2-2 (Prevention of Significant Deterioration (PSD))**

This 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.

This source was 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 at 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 and the source remains a minor source under PSD for future modification.

**326 IAC 2-5.1-2 (Registrations)**

Registration applicability is discussed under the Permit Level Determination – Registration section above.

**326 IAC 2-6 (Emission Reporting)**

Pursuant to 326 IAC 2-6-1, this source is not subject to this rule because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake or Porter counties, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

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

The requirements of 326 IAC 8-1-6 are not applicable, because none of the emission units at this source have the potential to emit greater than twenty-five (25) tons of VOC per year.

**State Rule Applicability – Metal Fabricating, Machining and Milling, and Polishing Processes**

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

Particulate emissions from each of the following processes shall be limited to the pounds per hour limits listed in the table below:

Process	Max Throughput Rate (lbs/hr)	Particulate Emission Limit (lbs/hr)
Metal Fabricating Process at Othy Division and DDC Plant	200	0.88
Polishing Process at Othy Division (PJC01 through PJC21)	200	0.88
Machining and Milling Process at Othy Division	181	0.82
Polishing Process at Othy Division and DDC Plant (D1 through D4 and SB1 through SB5)	172	0.79

The pounds per hour limitations were calculated using the following equation:

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 use of dust collectors for the polishing units ensures compliance with the limits above.

**State Rule Applicability – Natural Gas Combustion Sources**

326 IAC 4-2-2 (Incinerators)

The natural gas-fired heaters and water evaporators are not incinerators, as defined by 326 IAC 1-2-34, since they do not burn waste substances. Therefore, these units are not subject to 326 IAC 4-2-2.

326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)

The natural gas-fired heaters and water evaporators are not subject to 326 IAC 6-2 because they are not sources of indirect heating.

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

Pursuant to 326 IAC 6-3-1(b)(14), each of the natural gas-fired heaters and water evaporators are exempt from the requirements of 326 IAC 6-3, because they each have potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

326 IAC 7-1.1 (Sulfur dioxide emission limitations: applicability)

The natural gas-fired heaters and water evaporators are each not subject to the requirements of 326 IAC 7-1.1, because the potential emissions are less than twenty-five (25) tons per year and ten (10) pounds per hour.

**State Rule Applicability – Parts Washers (W1 through W7)**

326 IAC 8-3-2 (Cold Cleaner Operation)

Pursuant to 326 IAC 8-3-1 (Organic Solvent Degreasing Operations), the parts washers (W1 through W6 at Othy and W7 at DDC) are each subject to the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations), since they were each constructed after the applicability date of January 1, 1980. Pursuant to this rule, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements; and
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

Pursuant to 326 IAC 8-3-1 (Organic Solvent Degreasing Operations), each of the parts washers (W1 through W6 at Othy and W7 at DDC) are subject to the requirements of 326 IAC 8-3-5, since these units were constructed after the July 1, 1990, applicability date. Pursuant 326 IAC 8-3-5(a), for each of the cold cleaner degreasing units, the owner or operator shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
  - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38<sup>o</sup>C) (one hundred degrees Fahrenheit (100<sup>o</sup>F));
  - (B) The solvent is agitated; or
  - (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38<sup>o</sup>C) (one hundred degrees Fahrenheit (100<sup>o</sup>F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in 326 IAC 8-3-5(b).
- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38<sup>o</sup>C) (one hundred degrees Fahrenheit (100<sup>o</sup>F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9<sup>o</sup>C) (one hundred twenty degrees Fahrenheit (120<sup>o</sup>F)):
  - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when solvent is used is insoluble in, and heavier than, water.

- (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

Pursuant 326 IAC 8-3-5(b), for each of the cold cleaner degreasing units, the owner or operator 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 unit 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.

### **Conclusion and Recommendation**

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on July 28, 2008.

The operation of this source shall be subject to the conditions of the attached proposed Notice only Changes to Registration No. 085-26809-00059. The staff recommends to the Commissioner that this Registration be approved.

### **IDEM Contact**

- (a) Questions regarding this proposed permit can be directed to Janet Mobley at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5373 or toll free at 1-800-451-6027 extension 4-5373.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>

**Appendix A: Emission Summary**

**Company Name:** Symmetry Medical Usa, Inc.  
**Address City IN Zip:** 486 West 350 North, Warsaw, Indiana 46582  
**Notice Only Change No:** R085-26809-00059  
**Reviewer:** Janet Mobley  
**Date:** August 14, 2008

**Uncontrolled Emissions**

<b>Emission Units</b>	<b>PM</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SO2</b>	<b>NOX</b>	<b>VOC</b>	<b>CO</b>	<b>HAPS</b>
Polishing & Bead Blasters	8.84	8.84	8.84	0.00	0.00	0.00	0.00	0.00
Parts Washers	0.00	0.00	0.00	0.00	0.00	1.27	0.00	0.00
Natural Gas Combustion Units at Othy	0.07	0.29	0.29	0.02	3.80	0.21	3.19	0.07 (Hexane)
Natural Gas Combustion Units at DDC	0.01	0.06	0.06	0.00	0.78	0.04	0.66	0.01(Hexane)
Gas Fired Heater at Othy	0.01	0.01	0.01	0.0011	0.18	0.01	0.15	0
<b>Total</b>	<b>8.93</b>	<b>9.2</b>	<b>9.2</b>	<b>0.02</b>	<b>4.76</b>	<b>1.53</b>	<b>4.00</b>	<b>0.08</b>

**Controlled Emissions**

<b>Emission Units</b>	<b>PM</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SO2</b>	<b>NOX</b>	<b>VOC</b>	<b>CO</b>	<b>HAPS</b>
Polishing & Bead Blasters	8.84	8.84	8.84	0.00	0.00	0.00	0.00	0.00
Parts Washers	0.00	0.00	0.00	0.00	0.00	1.27	0.00	0.00
Natural Gas Combustion Units at Othy	0.07	0.29	0.29	0.02	3.80	0.21	3.19	0.07 (Hexane)
Natural Gas Combustion Units at DDC	0.01	0.06	0.06	0.00	0.78	0.04	0.66	0.01(Hexane)
Gas Fired Heater	0.01	0.01	0.01	0.0011	0.18	0.01	0.15	0
<b>Total</b>	<b>8.93</b>	<b>9.2</b>	<b>9.2</b>	<b>0.02</b>	<b>4.76</b>	<b>1.53</b>	<b>4.00</b>	<b>0.08</b>

Assumption: PM 2.5 = PM10

**Appendix A: Emission Calculations  
PM and PM10 Emissions  
From the Polishing Process**

**Company Name: Symmetry Medical Usa, Inc.**  
**Address: 486 West 350 North, Warsaw, Indiana 46582**  
**Registration: R085-26809-00059**  
**Reviewer: Janet Mobley**  
**Date: August 14, 2008**

Unit ID	Max. Throughput Rate (lbs/hr)	*PM/PM10 Loss %	PTE of PM/PM10 before Control (lbs/hr)	PTE of PM/PM10 before Control (tons/yr)
Polishing Jacks (PJC-01 through PJC-21 and D-6 through D-10)	200	0.2%	2.00	8.76
Glass Bead Blasters (SB-1 through SB-4 and SB-5)	200	1.0%	0.02	0.08
<b>Total</b>				<b>8.84</b>

\* This information is provided by the source based on the dust collected from the process and the mass balance method.

**Methodology**

PTE of PM/PM10 before Control (lbs/hr) = Max. Throughput Rate (lbs/hr) x PM/PM10 Loss %

PTE of PM/PM10 before Control (tons/yr) = Max. Throughput Rate (lbs/hr) x PM/PM10 Loss % x 8760 hrs/yr x 1 ton/2000 lbs

**Appendix A: Emission Calculations**  
**VOC Emissions**  
**From Seven (7) Parts Washers (W1 through W7)**

**Company Name: Symmetry Medical Usa, Inc.**  
**Address: 486 West 350 North, Warsaw, Indiana 46582**  
**Registration: R085-26809-00059**  
**Reviewer: Janet Mobley**  
**Date: August 14, 2008**

Unit	*Solvent Used	Density (lbs/gal)	Weight % VOC	Maximum Usage (gal/day)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)
W1	Inpro Clean 1300	9.98	100%	0.097	0.97	0.18
W2	Inpro Clean 1300	9.98	100%	0.097	0.97	0.18
W3	Inpro Clean 1300	9.98	100%	0.097	0.97	0.18
W4	Dusqueeze	8.22	100%	0.142	1.17	0.21
W5	Inpro Clean 1300	9.98	100%	0.097	0.97	0.18
W6	Inpro Clean 1300	9.98	100%	0.097	0.97	0.18
W7	EnSolve-GCS	9.98	100%	0.097	0.97	0.18
<b>Total</b>						<b>1.27</b>

\* These solvents do not contain any regulated HAPs.

**METHODOLOGY**

$$\text{PTE of VOC (lbs/day)} = \text{Density (lbs/gal)} \times \text{Weight \% VOC} \times \text{Max. Usage (gal/day)}$$
$$\text{PTE of VOC (tons/yr)} = \text{Density (lbs/gal)} \times \text{Weight \% VOC} \times \text{Max. Usage (gal/day)} \times 365 \text{ days/yr} \times 1 \text{ ton}/2000 \text{ lbs}$$

**Appendix A: Emission Calculations  
 Natural Gas Combustion Units at Othy Division  
 (Units H-1 through H-7, HVAC #1 through HVAC #11 and ID-48)  
 Company Name: Symmetry Medical Usa, Inc.  
 Address: 486 West 350 North, Warsaw, Indiana 46582  
 Registration: R085-26809-00059  
 Reviewer: Janet Mobley  
 Date: August 14, 2008**

Heat Input Capacity  
MMBtu/hr

8.9

Potential Throughput  
MMCF/yr

76.0

Emission Factor in lbs/MMCF	PM*	PM10*	SO <sub>2</sub>	**NO <sub>x</sub>	VOC	CO	Total HAPs
	1.9	7.6	0.6	100	5.5	84.0	1.89
<b>Potential to Emit in tons/yr</b>	<b>0.07</b>	<b>0.29</b>	<b>0.02</b>	<b>3.80</b>	<b>0.21</b>	<b>3.19</b>	<b>0.07</b>

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

\*\*Emission factor for NO<sub>x</sub>: Uncontrolled = 100 lbs/MMCF.

Emission factors are from AP-42, Chapter 1.4, Tables 1.4-1 and 1.4-2, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 7/98)

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

**Methodology**

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Potential to Emit (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2000 lbs

**Appendix A: Emission Calculations**  
**HAP Emissions from Natural Gas Combustion Units Othy Division**  
**(Units H-1 through H-7, HVAC #1 through HVAC #11 and ID-48)**  
**Company Name: Symmetry Medical Usa, Inc.**  
**Address: 486 West 350 North, Warsaw, Indiana 46582**  
**Registration: R085-26809-00059**  
**Reviewer: Janet Mobley**  
**Date: August 14, 2008**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

8.9

76.0

Emission Factor in lbs/MMCF	Benzene 2.10E-03	Dichlorobenzene 1.20E-03	Formaldehyde 7.50E-02	Hexane 1.80E+00	Toluene 3.40E-03	Lead 5.00E-04	Cadmium 1.10E-03	Chromium 1.40E-03	Manganese 3.80E-04	Nickel 2.10E-03	Total HAPs 1.89
<b>Potential to Emit in tons/yr</b>	<b>7.99E-05</b>	<b>4.56E-05</b>	<b>2.85E-03</b>	<b>0.07</b>	<b>1.29E-04</b>	<b>1.90E-05</b>	<b>4.18E-05</b>	<b>5.32E-05</b>	<b>1.44E-05</b>	<b>7.99E-05</b>	<b>0.07</b>

Emission factors are from AP-42, Chapter 1.4, Tables 1.4-3 and 1.4-4, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 7/98)

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

**Methodology**

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Potential to Emit (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2000 lbs

**Appendix A: Emission Calculations**  
**Natural Gas Combustion Units DDC Plant**  
**(Units HVAC#12 through 17 and RSH-1)**  
**Company Name: Symmetry Medical Usa, Inc.**  
**Address: 486 West 350 North, Warsaw, Indiana 46582**  
**Registration: R085-26809-00059**  
**Reviewer: Janet Mobley**  
**Date: August 14, 2008**

Heat Input Capacity  
MMBtu/hr

1.8

Potential Throughput  
MMCF/yr

15.7

Emission Factor in lbs/MMCF	PM*	PM10*	SO <sub>2</sub>	**NO <sub>x</sub>	VOC	CO	Total HAPs
	1.9	7.6	0.6	100	5.5	84.0	1.89
<b>Potential to Emit in tons/yr</b>	<b>0.01</b>	<b>0.06</b>	<b>0.00</b>	<b>0.78</b>	<b>0.04</b>	<b>0.66</b>	<b>0.01</b>

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

\*\*Emission factor for NO<sub>x</sub>: Uncontrolled = 100 lbs/MMCF.

Emission factors are from AP-42, Chapter 1.4, Tables 1.4-1 and 1.4-2, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 7/98)

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

**Methodology**

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Potential to Emit (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2000 lbs

**Appendix A: Emission Calculations  
HAP Emissions from Natural Gas Combustion Units DDC Plant**

**Company Name: Symmetry Medical Usa, Inc.  
Address: 486 West 350 North, Warsaw, Indiana 46582  
Registration: R085-26809-00059  
Reviewer: Janet Mobley  
Date: August 14, 2008**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

1.8

15.7

Emission Factor in lbs/MMCF	Benzene 2.10E-03	Dichlorobenzene 1.20E-03	Formaldehyde 7.50E-02	Hexane 1.80E+00	Toluene 3.40E-03	Lead 5.00E-04	Cadmium 1.10E-03	Chromium 1.40E-03	Manganese 3.80E-04	Nickel 2.10E-03	Total HAPs 1.89
<b>Potential to Emit in tons/yr</b>	<b>1.65E-05</b>	<b>9.41E-06</b>	<b>5.88E-04</b>	<b>0.01</b>	<b>2.67E-05</b>	<b>3.92E-06</b>	<b>8.63E-06</b>	<b>1.10E-05</b>	<b>2.98E-06</b>	<b>1.65E-05</b>	<b>0.01</b>

Emission factors are from AP-42, Chapter 1.4, Tables 1.4-3 and 1.4-4, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 7/98)

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

**Methodology**

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Potential to Emit (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2000 lbs

**Appendix A: Emission Calculations  
 Natural Gas Combustion  
 (MMBtu/hr < 100)  
 From the 0.4 MMBtu/hr Space Heater at Othy (Unit #3107)**

**Company Name: Symmetry Medical Usa, Inc.  
 Address: 486 West 350 North, Warsaw, Indiana 46582  
 Registration: R085-26809-00059  
 Reviewer: Janet Mobley  
 Date: August 14, 2008**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

0.4

3.5

Pollutant

	PM*	PM10*	SO <sub>2</sub>	**NO <sub>x</sub>	VOC	CO
Emission Factor in lbs/MMCF	7.6	7.6	0.6	100	5.5	84.0
<b>Potential to Emit in tons/yr</b>	<b>0.01</b>	<b>0.01</b>	<b>1.1E-03</b>	<b>0.18</b>	<b>0.01</b>	<b>0.15</b>

\*PM and PM10 emission factors are condensable and filterable PM10 combined.

\*\*Emission factors for NO<sub>x</sub>: Uncontrolled = 100 lbs/MMCF.

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

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

Potential to Emit (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2000 lbs