



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant
DATE: January 28, 2005
RE: Symmetry Medical USA, Inc. / 085-20412-00100
FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Registration

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

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

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

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

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

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

Enclosures
FN-REGIS.dot 1/10/05



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.in.gov/idem

Ms. Linda S. Scalet
Symmetry Medical USA, Inc. Claypool
486 West 350 North
Warsaw, Indiana 46582

January 28, 2005

Re: 085-20412-00100
Registration No. 085-20412-00100

Dear Ms. Scalet:

The application from Symmetry Medical USA, received on November 24, 2004, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following stainless steel surgical instruments manufacturing source, located at 111 North Clay Street, Claypool, IN 46510, is classified as registered:

- (a) Six (6) natural gas fired radiant heaters, identified as H-01 through H-06 and each having a capacity of 0.1 MMBtu per hour;
- (b) Two (2) natural gas fired HVAC units, identified as HVAC-01 and HVAC-02 and each having a capacity of 0.2 MMBtu per hour;
- (c) Five (5) natural gas fired HVAC units, identified as HVAC-03 through HVAC-07 and each having a capacity of 0.4 MMBtu per hour;
- (d) Three (3) glass bead blasting units, identified as BB-01 through BB-03 and each having a capacity of 200 lbs per hour, using internal return air dust collectors, identified as BBC-01 through BBC-03, for particulate control and exhausting to interior of building;
- (e) Seven (7) polishing jacks, identified as PJ-01 through PJ-07 and each having a capacity of 200 lbs per hour, using internal return air dust collectors, identified as PJC-01 through PJC-07, for particulate control and exhausting to interior of building;
- (f) Two (2) impro-clean parts washers, identified as PW-01 and PW-02, with a maximum solvent usage of less than 145 gallons per twelve (12) month period, using non-halogenated solvents and exhausting to interior of building;
- (g) Vehicular traffic on paved plant roads with maximum capacity of 1,168 vehicle miles traveled per year;
- (h) One (1) welding operation station using non-consumable gas tungsten arc welding with no particulate and hazardous air pollutant emissions;
- (i) Sixteen (16) metal fabrication CNC lathes with no regulated air pollutant emissions.
- (j) Four (4) metal fabrication milling machines with no regulated air pollutant emissions.
- (k) Three (3) metal fabrication cutting/drilling stations with no regulated air pollutant emissions.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 1-6-3 (Preventive Maintenance), the following shall apply:
 - (a) The Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission units;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
 - (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
 - (c) PMP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM and OAQ.
2. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
 - (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 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
3. Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the following units shall not exceed 0.88 pounds per hour when operating at a maximum process weight rate of 200 pounds per hour:
 - (b) Each of the three (3) glass bead blasting units, identified as BB-01 through BB-03; and
 - (b) Each of the seven (7) polishing jacks, identified as PJ-01 through PJ-07.

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

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

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

The Permittee shall operate the dust collectors, identified as BBC-01 through BBC-03 (for glass bead blasting units) and PJC-01 through PJC-07 (for polishing jacks), at all times the units are in operation to be in compliance with 326 IAC 6-3-2.

4. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Operation), the owner or operator of a cold cleaning facility 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 operating requirements;
 - (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.

5. Pursuant to 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control), the following shall apply:
 - (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility 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) kilo-Pascals (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 than four and three-tenths (4.3) kilo-Pascals (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) (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.

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

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

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

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

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

GS/EVP

cc: File – Kosciusko County
Kosciusko County Health Department
Northern Regional Office
Air Compliance Section Inspector – Doyle Houser
Permit Tracking
Air Programs Section- Michelle Boner

Registration Annual Notification

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

Company Name:	Symmetry Medical USA, Inc. Claypool
Address:	111 North Clay Street
City:	Claypool, IN 46510
Authorized individual:	Linda S. Scalet
Phone #:	574-371-8007
Registration #:	085-20412-00100

I hereby certify that Symmetry Medical USA, Inc. Claypool is still in operation and is in compliance with the requirements of Registration 085-20412-00100.

Name (typed):
Title:
Signature:
Date:

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name: Symmetry Medical USA, Inc. Claypool
Source Location: 111 North Clay Street, Claypool, IN 46510
County: Kosciusko
SIC Code: 3842
Registration No.: 085-20412-00100
Permit Reviewer: Gaurav Shil / EVP

The Office of Air Quality (OAQ) has reviewed an application from Symmetry Medical USA, Inc. Claypool relating to the manufacture of stainless steel surgical instruments.

New Emission Units and Pollution Control Equipment

The source consists of the following new emission units and pollution control devices during this review process:

- (a) Six (6) natural gas fired radiant heaters, identified as H-01 through H-06 and each having a capacity of 0.1 MMBtu per hour;
- (b) Two (2) natural gas fired HVAC units, identified as HVAC-01 and HVAC-02 and each having a capacity of 0.2 MMBtu per hour;
- (c) Five (5) natural gas fired HVAC units, identified as HVAC-03 through HVAC-07 and each having a capacity of 0.4 MMBtu per hour;
- (d) Three (3) glass bead blasting units, identified as BB-01 through BB-03 and each having a capacity of 200 lbs per hour, using internal return air dust collectors, identified as BBC-01 through BBC-03, for particulate control and exhausting to interior of building;
- (e) Seven (7) polishing jacks, identified as PJ-01 through PJ-07 and each having a capacity of 200 lbs per hour, using internal return air dust collectors, identified as PJC-01 through PJC-07, for particulate control and exhausting to interior of building;
- (f) Two (2) impro-clean parts washers, identified as PW-01 and PW-02, with a maximum solvent usage of less than 145 gallons per twelve (12) month period, using non-halogenated solvents and exhausting to interior of building;
- (g) Vehicular traffic on paved plant roads with maximum capacity of 1,168 vehicle miles traveled per year;
- (h) One (1) welding operation station using non-consumable gas tungsten arc welding with no particulate and hazardous air pollutant emissions;
- (i) Sixteen (16) metal fabrication CNC lathes with no regulated air pollutant emissions.
- (j) Four (4) metal fabrication milling machines with no regulated air pollutant emissions.
- (h) Three (3) metal fabrication cutting/drilling stations with no regulated air pollutant emissions.

Existing Approvals

The source has no existing approvals.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on November 24, 2004 and additional information was received on December 23, 2004.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, Pages 1 through 7).

Uncontrolled Potential Emissions for the Entire Source

The table reflects the unrestricted potential to emit.

Pollutant	Potential To Emit (tons/year)
PM	12.38
PM-10	11.82
SO ₂	0.01
VOC	0.42
CO	1.10
NO _x	1.31

HAPs	Potential To Emit (tons/year)
Diethanol amine	0.02
Hexane	0.02
Other	negligible
Total	0.04

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all criteria pollutants are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of criteria pollutants is less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1.
- (c) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of particulate matter (PM) and particulate matter less than ten (10) microns (PM₁₀) is less than twenty-five (25) tons per year and greater than five (5) tons per year, therefore pursuant to 326 IAC 2-5.1-2

(a)(1)(A) the source is subject to the provisions of 326 IAC 2-5.5-1. A registration will be issued.

County Attainment Status

The source is located in Kosciusko County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
1-hr Ozone	Attainment
8-hr Ozone	Attainment
CO	Attainment
Lead	Attainment

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

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

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

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

This is the first air approval issued to this source.

Federal Rule Applicability

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

- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR 63.7485, Subpart DDDDD) are not included in the permit for the six (6) radiant heaters because the source is not a major source of HAP as defined in 40 CFR 63.2 or 40 CFR 63.761.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Preventive Maintenance)

Pursuant to 326 IAC 1-6-3 (Preventive Maintenance), the Preventive Maintenance Plan (PMP) shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval.

326 IAC 2-4.1-1 (New Source Toxics Control)

This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control) because the source has PTE of any HAP less than 10 tons per year and PTE of any combination of HAPs less than 25 tons per year. Therefore, 326 IAC 2-4.1-1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is located in Kosciusko County and the potential to emit of all criteria pollutants is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies)

Pursuant to this rule the particulate matter (PM) from the facilities shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

The maximum process rate for each of the three (3) glass bead blasting units, identified as BB-01 through BB-03, is 200 pounds per hour. Hence, based on the above formula the allowable particulate emission rate for each unit shall be 0.88 pounds per hour.

The maximum process rate for each of the seven (7) polishing jacks, identified as PJ-01 through PJ-07, is 200 pounds per hour. Hence, based on the above formula the allowable particulate emission rate for each unit shall be 0.88 pounds per hour.

The dust collectors, identified as BBC-01 through BBC-03 and PJC-01 through PJC-07, shall be in operation at all times the bead blast units and polishing jacks are in operation, in order to comply with the emission limits. Based on the calculations (Appendix A, page 4) the glass bead blast units and polishing jacks are in compliance with this limit.

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

Pursuant to 326 IAC 8-3-2, the owner or operator of the two (2) parts washers cold cleaning facilities 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;

- (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.

The source will operate the two (2) parts washers in accordance with the operating standards specified in 326 IAC 8-3-2 and will be in compliance with all of the requirements of the rule.

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

- (a) The requirements of 326 IAC 8-3-5 apply to any new cold cleaner degreaser located in any county in Indiana and not equipped with remote solvent reservoirs. The two (2) improve clean parts washers, cold cleaner degreaser facilities are not equipped with remote solvent reservoirs and therefore the requirements of 326 IAC 8-3-5 shall apply.

Pursuant to 326 IAC 8-3-5(a), the owner or operator of the cold cleaner degreaser facilities shall:

- (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 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)), 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°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) (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.

The source will operate the two (2) parts washers in accordance with the operating standards specified in 326 IAC 8-3-5 and will be in compliance with all of the requirements of the rule.

326 IAC 14-1-1 (Emission standards for hazardous air pollutants)

Pursuant to 326 IAC 14-1-1, the provisions of 326 IAC 14 apply to the source for which a standard is prescribed under 326 IAC 14. There are no standards prescribed for this source under 326 IAC 14, therefore the source is not subject to the requirements of 326 IAC 14.

326 IAC 20-6-1 (Halogenated solvent cleaning)

326 IAC 20-6-1 is not applicable to the parts washers, cold cleaners and degreaser facilities because these facilities do not use any solvent containing the halogenated compounds listed in 326 IAC 20-6-1 (a).

Conclusion

The construction and operation of this stainless steel surgical instruments manufacturing source shall be subject to the conditions of the attached proposed Registration No. 085-20412-00100.

Appendix A: Emission Calculations

Company Name: Symmetry Medical USA, Inc. Claypool
Address City IN Zip: 111 North Clay Street, Claypool, IN 46510
Registration: 085-20412-00100
Reviewer: Gaurav Shil/EVP
Date: 1/28/2005

Uncontrolled Potential Emissions (tons/year)					
Emissions Generating Activity					
Pollutant	Natural Gas Combustion	Polishing Jacks and Bead Blasters Dust Collectors	Degreasing Operations	Paved Roads	TOTAL
PM	0.10	11.58	0.00	0.71	12.38
PM10	0.10	11.58	0.00	0.14	11.82
SO2	0.01	0.00	0.00	0.00	0.01
NOx	1.31	0.00	0.00	0.00	1.31
VOC	0.07	0.00	0.35	0.00	0.42
CO	1.10	0.00	0.00	0.00	1.10
total HAPs	0.02	0.00	0.02	0.00	0.04
worst case single HAP	0.02	0.00	0.02	0.00	
	Hexane		Diethanol amine		
Total emissions based on rated capacity at 8,760 hours/year.					
Controlled Potential Emissions (tons/year)					
Emissions Generating Activity					
Pollutant	Natural Gas Combustion	Polishing Jacks and Bead Blasters Dust Collectors	Degreasing Operations	Paved Roads	TOTAL
PM	0.10	0.12	0.00	0.71	0.92
PM10	0.10	0.12	0.00	0.14	0.35
SO2	0.01	0.00	0.00	0.00	0.01
NOx	1.31	0.00	0.00	0.00	1.31
VOC	0.07	0.00	0.35	0.00	0.42
CO	1.10	0.00	0.00	0.00	1.10
total HAPs	0.02	0.00	0.02	0.00	0.04
worst case single HAP	0.02	0.00	0.02	0.00	
	Hexane		Diethanol amine		
Total emissions based on rated capacity at 8,760 hours/year, after control.					

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Source wide combustion sources

Company Name: Symmetry Medical USA, Inc. Claypool
Address City IN Zip: 111 North Clay Street, Claypool, IN 46510
Registration: 085-20412-00100
Reviewer: Gaurav Shil/EVP
Date: 1/28/2005

The Source consists of the following natural gas combustion facilities:

- 1. Six (6) 0.1 MMBtu/hr Radiant Space Heaters 0.6
- 2. Five (5) 0.4 MMBtu/hr HVAC units 2
- 3. Two (2) 0.2 MMBtu/hr HVAC units 0.4

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
3.0	26.3

Emission Factor in lb/MMCF	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
	7.6	7.6	0.6	100.0	5.5	84.0
				*see below		
Potential Emission in tons/yr	0.1	0.1	0.0	1.3	0.1	1.1

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

PM emission factors are for total particulate matter.

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 7/98)

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

Appendix A: Emissions Calculations

**Natural Gas Combustion Only
MM BTU/HR <100
Source wide combustion sources
HAP Emissions**

Company Name: Symmetry Medical USA, Inc. Claypool
Address City IN Zip: 111 North Clay Street, Claypool, IN 46510
Registration: 085-20412-00100
Reviewer: Gaurav Shil/EVP
Date: 1/28/2005

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMCF	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.8E-05	1.6E-05	9.9E-04	2.4E-02	4.5E-05

HAPs - Metals

	Lead	Barium	Chromium	Vanadium	Nickel
Emission Factor in lb/MMcf	5.0E-04	4.4E-03	1.4E-03	2.3E-03	2.1E-03
Potential Emission in tons/yr	6.6E-06	5.8E-05	1.8E-05	3.0E-05	2.8E-05

Methodology is the same as Page 2

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Process Particulate Emissions
Bead Blasters and Polishing/Grinding Stations
Dust Collectors (BBC01-03 and PJC01-07)**

Company Name: Symmetry Medical USA, Inc. Claypool
Address City IN Zip: 111 North Clay Street, Claypool, IN 46510
Registration: 085-20412-00100
Reviewer: Gaurav Shil/EVP
Date: 1/28/2005

Emission Unit Description	Outlet Grain Loading (gr/acf)	Control Device Fan Flow Rate (acfm)	PM Control Efficiency (%)	Potential PM Emission Rate				Process Weight Rate (lb/hr)	326 IAC 6-3-2 PM Emission Rate (lb/hr)	Equivalent 326 IAC 6-3-2 PM Emission Rate (tons per year)
				Before Controls (lb/hr)	Before Controls (tons/yr)	After Controls (lb/hr)	After Controls (tons/yr)			
BBC-01	0.002185	400	98%	0.75	3.28	0.0075	0.0328	200	0.88	3.84
BBC-02	0.002185	400	98%	0.75	3.28	0.0075	0.0328	200	0.88	3.84
BBC-03	0.002185	400	98%	0.75	3.28	0.0075	0.0328	200	0.88	3.84
PJC-01	0.00012	550	95%	0.06	0.25	0.0006	0.0025	200	0.88	3.84
PJC-02	0.00012	550	95%	0.06	0.25	0.0006	0.0025	200	0.88	3.84
PJC-03	0.00012	550	95%	0.06	0.25	0.0006	0.0025	200	0.88	3.84
PJC-04	0.00012	550	95%	0.06	0.25	0.0006	0.0025	200	0.88	3.84
PJC-05	0.00012	550	95%	0.06	0.25	0.0006	0.0025	200	0.88	3.84
PJC-06	0.00012	550	95%	0.06	0.25	0.0006	0.0025	200	0.88	3.84
PJC-07	0.00012	550	95%	0.06	0.25	0.0006	0.0025	200	0.88	3.84
Total					11.58		0.12			

Methodology:

Potential Uncontrolled Emissions (tons/yr Outlet Loading (grains/acf) * Fan Flow Rate (acfm) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs

Potential Controlled Emissions (tons/yr) = Outlet Loading (grains/acf) * Fan Flow Rate (acfm) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs * (1 - Control Efficiency)

Total PM is assumed equal to PM-10.

The allowable PM emission rate pursuant to 326 IAC 6-3-2(c), Process Operations, for weight rates up to 60,000 lb/hr is determined using the following formula:

$E = 4.1 * P^{0.67}$ where: E = allowable PM emission rate (lb/hr)
P = process weight rate (tons/hr)

Appendix A: Emissions Calculations
Two (2) Parts Washers

Company Name: Symmetry Medical USA, Inc. Claypool
Address City IN Zip: 111 North Clay Street, Claypool, IN 46510
Registration: 085-20412-00100
Reviewer: Gaurav Shil/EVP
Date: 1/28/2005

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency*
PW-1																
Impro-Clean 1300	9.98	100.00%	0.0%	100.0%	0.0%	0.00%	0.04000	0.100	9.98	9.98	0.04	0.96	0.17	0.00	n/a	100%
PW-2																
Impro-Clean 1300	9.98	100.00%	0.0%	100.0%	0.0%	0.00%	0.04000	0.100	9.98	9.98	0.04	0.96	0.17	0.00	n/a	100%

Uncontrolled Potential Emissions

0.080 1.916 0.350 -

* Cold Cleaning

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hrs/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lb/s/gal) * (1-Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Benzene	Weight % Ethyl Benzene	Weight % Formaldehyde	Weight % Diethanol amine	Weight % Methanol	Weight % MEK	Weight % MIBK	Weight % Naphthalene	Weight % Styrene	Weight % Toluene	Weight % Xylene	Benzene (ton/yr)	Ethyl Benzene (ton/yr)	Formaldehyde (ton/yr)	Diethanol amine (ton/yr)	Methanol (ton/yr)	MEK (ton/yr)	MIBK (ton/yr)	Naphthalene (ton/yr)	Styrene (ton/yr)	Toluene (ton/yr)	Xylene (ton/yr)	Total HAP (ton/yr)
Impro-Clean 1300	9.98	0.04000	0.100	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Impro-Clean 1300	9.98	0.04000	0.100	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01

Uncontrolled Potential Emissions

0.02

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * (1 ton/2000 lbs)

Appendix A: Emission Calculations
Fugitive Emissions Calculations from Paved Plant Roads

Company Name: Symmetry Medical USA, Inc. Claypool
Address City IN Zip: 111 North Clay Street, Claypool, IN 46510
Registration: 085-20412-00100
Reviewer: Gaurav Shil/EVP
Date: 1/28/2005

**** paved roads ****

The following calculations determine the amount of emissions created by vehicle traffic on paved roads, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 13.2.1.

1168 miles per year for all vehicles combined (based on information in Registration application)

$$\begin{aligned} Ef &= k \cdot (sL/2)^{0.65} \cdot (W/3)^{1.5} - C \\ &= 0.24 \text{ lb PM-10/mile} \\ &= 1.21 \text{ lb PM/mile} \end{aligned}$$

where k = 0.016 (particle size multiplier for PM(k=0.082 for PM-30 or TSP)
sL = 0.6 road surface silt loading (g/m²)
W = 30.4 tons average weight of all vehicles traveling the road
C = 0.00047 emission factor for 1980's vehicle exhaust, brake wear and tire wear for PM and PM10

$$\text{PM-10: } \frac{0.24 \text{ lb/mi} \times 1168 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.14 \text{ tons/yr}$$

$$\text{PM: } \frac{1.21 \text{ lb/mi} \times 1168 \text{ mi/yr}}{2000 \text{ lb/ton}} = 0.71 \text{ tons/yr}$$

Total PM Emissions From Paved Roads = 0.71 tons/yr

Total PM-10 Emissions From Paved Roads = 0.14 tons/yr

Appendix A: Welding and Thermal Cutting

Company Name: Symmetry Medical USA, Inc. Claypool
Address City IN Zip: 111 North Clay Street, Claypool, IN 46510
Registration: 085-20412-00100
Reviewer: Gaurav Shil/EVP
Date: 1/28/2005

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS * (lb pollutant / lb electrode)				EMISSIONS (lb/hr)				TOTAL HAPS (lb/hr)
			PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING											
Tungsten Inert Gas (MIG)(E70S)	1	2.43	0	0	--	0	0.000	0	0.000	0	0.000
EMISSION TOTALS						PM = PM10	Mn	Ni	Cr	Total HAPs	
Potential Emissions lbs/hr						0.00	0.00	0.00	0.00	0.00	
Potential Emissions lbs/day						0.00	0.00	0.00	0.00	0.00	
Potential Emissions tons/year						0.00	0.00	0.00	0.00	0.00	

METHODOLGY

*Pursuant to Form CC, Welding and Oxygen Cutting of Metal, the Permittee uses Gas Tungsten Arc Welding which is a non-consumable electrode. Therefore, there are no emissions from the welding process. See AP-42, Chapter 12.19 for additional emission factors for welding.