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TO: Interested Parties / Applicant  
DATE: January 25, 2004  
RE: Symmerty Medical, Inc / 113-19645-00082  
FROM: Paul Dubenetzky  
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, Room 1049, 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.dot 1/10/05

## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for an Exemption

#### Source Background and Description

<b>Source Name:</b>	<b>Symmetry Medical, Inc., UlteXX Division</b>
<b>Source Location:</b>	<b>200 Progress Way, Avilla, Indiana 46710</b>
<b>County:</b>	<b>DeKalb</b>
<b>SIC Code:</b>	<b>3841</b>
<b>Operation Permit No.:</b>	<b>113-19645-00082</b>
<b>Permit Reviewer:</b>	<b>Michael S. Schaffer</b>

The Office of Air Quality (OAQ) has reviewed an application from Symmetry Medical, Inc., UlteXX Division relating to the operation of an orthopedic implant and instrument manufacturing source.

#### Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) Ten (10) natural gas-fired force-air heating units, identified as HU1 through HU10, constructed in 2004, heat input capacity: 1.51 million British thermal units per hour, total.
- (b) One (1) metal etching operation, equipped with one (1) metal etch bath that uses Power Kleen 500 (a nonvolatile solution) and one (1) nitric acid cleaning facility, constructed in 1988, capacity: 2.967 pounds of orthopedic implant and instrument parts per hour.
- (c) Two (2) grinding and machining operations, identified as MF1 and MF2 Grinder, constructed in 2004, equipped with two (2) baghouses, identified as Baghouses V3 and V4 for particulate control, exhausting inside, capacity: 1.142 pounds of metal orthopedic implants per hour.
- (d) Two (2) grinding and machining operations, identified as MF4 and MF5 Grinder, constructed in 2004, equipped with two (2) baghouses, identified as Baghouses V5 and V6 for particulate control, exhausting inside, capacity: 6.798 pounds of metal orthopedic instruments per hour.

#### Unpermitted Emission Units and Pollution Control Equipment

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

#### Existing Approvals

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

Exemption No. 113-18779-00082, issued on March 30, 2004.

All conditions from previous approvals were incorporated into this permit except the following:

Exemption No. 113-18779-00082 issued on March 30 2004:

- (a) Condition (2) - Pursuant to 326 IAC 8-3-2 (Cold Cleaner) operation, the owner or operator of a cold cleaning facility shall:
- (1) equip the cleaner with a cover;
  - (2) equip the cleaner with a facility for draining cleaned parts;
  - (3) close the degreaser cover whenever parts are no being handled in the cleaner;
  - (4) drain cleaned parts for at least fifteen (15) seconds until dripping ceases;
  - (5) provide a permanent, conspicuous label summarizing the operating requirements;
  - (6) store waste solvent only in covered containers and not dispose of waste solvents 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

Reason not incorporated: The metal etching operations is not equipped with a cold cleaning degreaser. Therefore, the requirements of 326 IAC 8-3-2 do not apply to any facility at this source and will not be included in this exemption.

- (b) Condition (3) - Any change or modification that increase the potential to emit of VOC to twenty-five (25) tons per year or greater shall require prior IDEM, OAQ approval.

Reason not incorporated: An increase in potential to emit of VOC to greater than ten (10) tons per year would change the operating permit status of the source from an exemption under 326 IAC 2-1.1-3 to a registration under 326 IAC 2-5.1-2. Therefore, as part of this exemption, it will be required that any change or modification that increases the potential to emit VOC from the entire source to ten (10) tons per year or greater shall require prior IDEM, OAQ approval.

In addition, as part of this approval, it will be required that any change or modification that increases the potential to emit PM and PM<sub>10</sub> to five (5) tons per year or greater each may also render the requirements of 326 IAC 2-5.1-2 applicable and thus, shall require prior IDEM, OAQ approval.

### **Enforcement Issue**

There are no enforcement actions pending.

### **Stack Summary**

There are no stacks associated with this exemption.

### **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 September 20, 2004, with additional information received on December 6 and 17, 2004.

### Emission Calculations

See Pages 1 through 3 of 3 in Appendix A of this document for detailed emission calculations.

### Potential to Emit of the Source Before Controls

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

Pollutant	Potential to Emit (tons/yr)
PM	1.28
PM <sub>10</sub>	1.32
SO <sub>2</sub>	0.004
VOC	0.039
CO	0.592
NO <sub>x</sub>	0.705

HAPs	Potential to Emit (tons/yr)
Benzene	0.00001
Dichlorobenzene	0.000008
Formaldehyde	0.0005
Hexane	0.013
Toluene	0.00002
Lead	0.000004
Cadmium	0.00001
Chromium	0.00001
Manganese	0.000003
Nickel	0.00001
Total	0.013

- (c) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.
- (a) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (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 and Emission Offset applicability.

### County Attainment Status

The source is located in DeKalb County.

Pollutant	Status
PM <sub>10</sub>	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
1-Hour Ozone	Attainment
8-Hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) 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 NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. DeKalb County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) DeKalb County has been classified as attainment or unclassifiable in Indiana for PM, PM<sub>10</sub>, NO<sub>2</sub>, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

### Source Status

Existing Source PSD, Part 70, or FESOP Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	0.068
PM <sub>10</sub>	0.109
SO <sub>2</sub>	0.004
VOC	0.039
CO	0.592
NO <sub>x</sub>	0.705
Single HAP	Less than 10
Combination HAPs	Less than 25

- (a) This existing source is a minor stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater.
- (b) The emissions are based on the information contained in Pages 1 through 3 of 3 in Appendix A of this document.

#### Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit Exemption 113-19645-00082, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

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

This status is based on all the air approvals issued to the source. This status has been verified by the OAQ inspector assigned to the source.

#### Federal Rule Applicability

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

### **State Rule Applicability – Entire Source**

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

This source is not located in Lake or Porter County with the potential to emit greater than twenty-five (25) tons per year of NO<sub>x</sub>, does not emit five (5) tons per year or more of lead and does not require a Part 70 Operating Permit. Therefore, the requirements of 326 IAC 2-6 do not apply.

#### 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 the 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.

### **State Rule Applicability – Individual Facilities**

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

The unrestricted potential emissions of each attainment criteria pollutant are less than 250 tons per year. Therefore, this source, which is not one of the twenty-eight (28) listed source categories, is a minor source pursuant to 326 IAC 2-2, PSD.

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

Pursuant to 326 IAC 6-3-1(b)(14), the four (4) grinding and machining operations, identified as MF1, MF2, MF4, and MF5, are not subject to the requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) because the potential emissions from these facilities are less than a combined total of 0.551 pounds of particulate per hour.

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

This source does not perform organic solvent degreasing at the metal etching operation (which was made subject to the requirements 326 IAC 8-3-2 in Exemption 113-18779-00082, issued on March 30, 2004). Therefore, the metal etching operation is not considered a cold cleaner degreaser and the requirements of 326 IAC 8-3-2 are not applicable.

### **Conclusion**

The operation of this orthopedic implant and instrument manufacturing source shall be subject to the conditions of Exemption 113-19645-00082.

**Appendix A: Emission Calculations  
Grinding Operations**

**Company Name: Symmetry Medical, Inc., UltreXX Division**  
**Address City IN Zip: 200 Progress Way, Avilla, Indiana 46710**  
**Exemption Number: 113-19645**  
**Plt ID: 113-00082**  
**Reviewer: Michael S. Schaffer**  
**Application Date: September 20, 2004**

Unit ID	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	PM Emission Rate before Controls (lb/hr)	PM Emission Rate before Controls (tons/yr)	PM Emission Rate after Controls (lb/hr)	PM Emission Rate after Controls (tons/yr)
Baghouse V3	95.7%	0.00008	1200	0.020	0.087	0.001	0.004
Baghouse V4	95.7%	0.00008	1200	0.020	0.087	0.001	0.004
Baghouse V5	95.7%	0.00053	1200	0.13	0.550	0.005	0.024
Baghouse V6	95.7%	0.00053	1200	0.13	0.550	0.005	0.024
<b>Total:</b>				<b>0.291</b>	<b>1.27</b>	<b>0.013</b>	<b>0.055</b>

**Methodology**

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (cub. ft./min.) (60 min/hr) (lb/7000 grains)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

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

**Company Name: Symmetry Medical, Inc., UlteXX Division**  
**Address City IN Zip: 200 Progress Way, Avilla, Indiana 46710**  
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Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

**Heating units HU1 through HU10 rated at 1.61 mmBtu/hr total**

1.61

14.1

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100	5.50	84.0
				**see below		
Potential Emission in tons/yr	0.013	0.054	0.004	0.705	0.039	0.592

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

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

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

See page 3 for HAPs emissions calculations.

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

**Company Name: Symmetry Medical, Inc., UlteXX Division**  
**Address City IN Zip: 200 Progress Way, Avilla, Indiana 46710**  
**Exemption Number: 113-19645**  
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HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 0.0021	Dichlorobenzene 0.0012	Formaldehyde 0.075	Hexane 1.80	Toluene 0.003
Potential Emission in tons/yr	0.00001	0.000008	0.0005	0.013	0.00002

HAPs - Metals						
Emission Factor in lb/MMcf	Lead 0.0005	Cadmium 0.0011	Chromium 0.0014	Manganese 0.0004	Nickel 0.0021	<b>Total</b>
Potential Emission in tons/yr	0.000004	0.00001	0.00001	0.000003	0.00001	<b>0.013</b>

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.