



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

March 30, 2004

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

TO: Interested Parties / Applicant
RE: Symmetry Ultraxx / 113-18779-00082
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 9/16/03



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

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Commissioner

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March 30, 2004

Mr. Thomas Sherer
Symmetry UlteXX
200 Progress Way
Avilla, IN 46710

Dear Mr. Sherer:

Re: Exempt Construction and Operation Status,
113-18779-00082

The application from Symmetry UlteXX, received on March 4, 2004, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following emission units, to be located at 200 Progress Way, Avilla, Indiana, are classified as exempt from air pollution permit requirements:

- (a) Ten (10) natural gas-fired forced-air heating units, identified as HU1 through HU10, with a total maximum heat input capacity of 1.61 mmBtu/hr.
- (b) One (1) metal etching operation, producing orthopedic implants and instruments, using nitric acid at the maximum rate of 0.012 pounds per hour, and Power Kleen 500 at the maximum rate of 0.214 pounds per hour.
- (c) One (1) metal machining and polishing operation, producing orthopedic implants, controlled by Torit baghouses identified as V3 and V4, each with an efficiency of 95.7%, exhausting inside the building.
- (d) One (1) metal machining and polishing operation, producing orthopedic instruments, controlled by Torit baghouses identified as V-5 and V-6, with an efficiency of 95.7%, exhausting inside the building.

The following conditions shall be applicable:

- (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:
 - (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.

- (2) Pursuant to 326 IAC 8-3-2 (Cold Cleaner 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.
- (3) Any change or modification which may increase the potential to emit of a single Hazardous Air Pollutant (HAP) to ten (10) tons per year or greater, or that of Volatile Organic Compounds (VOC) or any combination of HAPs to twenty-five (25) tons per year or greater shall require prior approval of the Office of Air Quality.

This exemption is the first air approval issued to this source.

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

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

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cc: File – Dekalb County
Dekalb County Health Department
Air Compliance – Doyle Houser
Northern Regional Office
Permit Tracking
Compliance Data Section

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

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	Symmetry UltreXX
Source Location:	200 Progress Way, Avilla, Indiana 46710
County:	Dekalb
SIC Code:	3841
Exemption No.:	113-18779-00082
Permit Reviewer:	Madhurima D. Moulik

The Office of Air Quality (OAQ) has reviewed an application from Symmetry UltreXX, formerly known as Jet Engineering, relating to the construction and operation of a metal machining, milling, and buffing plant producing orthopedic instruments and implants.

Emission Units and Pollution Control Equipment

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

- (a) Ten (10) natural gas-fired forced-air heating units, identified as HU1 through HU10, with a total maximum heat input capacity of 1.61 mmBtu/hr.
- (b) One (1) metal etching operation, producing orthopedic implants and instruments, using nitric acid at the maximum rate of 0.012 pounds per hour, and Power Kleen 500 at the maximum rate of 0.214 pounds per hour.
- (c) One (1) metal machining and polishing operation, producing orthopedic implants, controlled by Torit baghouses identified as V3 and V4, each with an efficiency of 95.7%, exhausting inside the building.
- (d) One (1) metal machining and polishing operation, producing orthopedic instruments, controlled by Torit baghouses identified as V-5 and V-6, with an efficiency of 95.7%, exhausting inside the building.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
V-1(vent)	-	-	-	-	Ambient
V-3(vent)	MF1 Grinder	-	-	-	Ambient
V-4(vent)	MF2 Grinder	-	-	-	Ambient
V-5(vent)	MF4 Grinder	-	-	-	Ambient
V-6(vent)	MF5 Grinder	-	-	-	Ambient

Recommendation

The staff recommends to the Commissioner that the construction and 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.

A complete application for the purposes of this review was received on March 4, 2004.

Emission Calculations

See Appendix A of this document for detailed emission calculations for the heating units.

Potential to Emit of Pollutants from Machining Operations:

(1) Machining and Polishing (Implants): Dust collected = 0.106 tons/yr.

Therefore, PM emissions (uncontrolled) at 95.7% collection efficiency = **0.11 tpy**

(2) Machining and Polishing (Instruments): Dust collected = 0.11 tons/yr

Therefore, PM emissions (uncontrolled) at 95.7% efficiency = **0.12 tpy**

(3) Metal Etching:

Usage rate of Power Kleen 500 = 0.214 pounds/hr

Composition = 100% Aliphatic Naptha

VOC emissions = HAP emissions = 0.214 lb/hr x 8760 hr/yr x 1 ton/2000 lb = 0.94 tpy

Usage rate of nitric acid = 0.012 pounds/hr

Acid mist/**PM/PM-10** emissions = 0.012 lb/hr x 8760 hr/yr x 1 ton/2000 lb = **0.05 tpy**

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	0.38
PM-10	0.38
SO ₂	Negligible
VOC	0.94
CO	0.6
NO _x	0.7

HAPs	Potential to Emit (tons/yr)
Single HAP	<10
Total	<25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) 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.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.

County Attainment Status

The source is located in Dekalb County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Dekalb County has been designated as attainment or unclassifiable for ozone. Therefore, VOC 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 for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

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 per year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) There are no New Source Performance Standard (NSPS) 326 IAC 12, (40 CFR 60), applicable to this source.
- (b) The etch cleaning operation at this source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart T – Standards for Halogenated Solvent Cleaning, because it does not use any halogenated solvents.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

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

326 IAC 2-2 (Prevention of Significant Deterioration)

The potential to emit of all criteria pollutants from this source are less than 250 tons per year, and it is not one of the twenty-eight (28) listed source categories. Therefore, 326 IAC 2-2 does not apply.

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

The operation of this orthopedic implant and instrument manufacturing plant will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 5-1 (Visible Emissions 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 6-3-2 (Process Operations)

The uncontrolled potential to emit of PM from the machining operations are less than 0.551 pounds per hour. Therefore, 326 IAC 6-3-2 does not apply.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements)

The potential VOC emissions from the emission units at this source are less than 25 tons per hour. Therefore, 326 IAC 8-1-6 does not apply.

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

The etch cleaning operation at this source uses an organic degreaser and was constructed in 1988. Therefore, it is subject to the requirements of 326 IAC 8-3-2.

Pursuant to 326 IAC 8-3-2 (Cold Cleaner 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.

Conclusion

The construction and operation of this orthopedic implant and instrument manufacturing plant shall be subject to the conditions of the Exemption No.: 113-18779-00082.

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

Company Name: Symmetry UlteXX
Address City IN Zip: 200 Progress Way, Avilla, IN 46710
Permit Number: 113-18779
Plt ID: 113-00082
Reviewer: Madhurima D. Moulik
Date: 11-Mar-04

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

1.6

14.1

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.1	0.0	0.7	0.0	0.6

*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 2 for HAPs emissions calculations.

updated 4/99

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Heating Units

HAPs Emissions

Company Name: Symmetry UlteXX

Address City IN Zip: 200 Progress Way, Avilla, IN 46710

Permit Number: 113-18779

Plt ID: 113-00082

Reviewer: Madhurima D. Moulik

Date: 11-Mar-04

HAPs - Organics					
	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	1.481E-05	8.462E-06	5.289E-04	1.269E-02	2.398E-05

HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	3.526E-06	7.757E-06	9.873E-06	2.680E-06	1.481E-05

Methodology is the same as page 1.

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