



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 24, 2007
RE: Heidtman Steel Products / 033-23677-00098
FROM: Nisha Sizemore
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 03/23/06



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 46204-2251
(317) 232-8603
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Mr. Alan Mueth
Heidtman Steel Products
101 South Main Street
Red Bud, Illinois 62278

January 24, 2007

Dear Mr. Mueth:

Re: Exempt Construction and Operation Status,
033-23677-00098

The application from Heidtman Steel Products, received on September 21, 2006, 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 steel cleaning operation located at 6118 County Road 42, Butler, Indiana, is classified as exempt from air pollution permit requirements:

- (a) One (1) Smooth Clean Surface (SCS) steel finishing machine, constructed in July 2006, with a maximum throughput of 20.8 tons of steel per hour, and a maximum water loss of fifty (50) gallons per hour. The SCS machine cleans and removes rust and scale from sheets or coils of steel using brushes and water. Pollutants in the lost water evaporate and are the air emissions for this unit.

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 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.
- (2) Pursuant to 326 IAC 6-4 (Fugitive Dust), the Permittee 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.
- (3) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the SCS machine shall not exceed 31.3 pounds per hour when operating at a process weight rate of 20.8 tons per hour.

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

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour;
and P = process weight rate in tons per hour

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.

Pursuant to Contract No. A305-5-65, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Stacie Enoch, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7895 to speak directly to Ms. Enoch. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204-2251 or call (800) 451-6027, ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original signed by

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

ERG/SE

cc: File - DeKalb County
DeKalb County Health Department
Air Compliance - Doyle Houser
Northern Regional Office
Permit Tracking
Compliance Data Section
Program Planning and Policy – Scott Delaney

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

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	Heidtman Steel Products
Source Location:	6118 County Road 42, Butler, Indiana 46721
County:	DeKalb
SIC Code:	3471
Operation Permit No.:	033-23677-00098
Permit Reviewer:	ERG/SE

The Office of Air Quality (OAQ) has reviewed an application from Heidtman Steel Products relating to the construction and operation of a stationary steel cleaning plant.

Emission Units and Pollution Control Equipment

The source consists of the following emission units:

- (a) One (1) Smooth Clean Surface (SCS) steel finishing machine, constructed in July 2006, with a maximum throughput of 20.8 tons of steel per hour, and a maximum water loss of fifty (50) gallons per hour. The SCS machine cleans and removes rust and scale from sheets or coils of steel using brushes and water. Pollutants in the lost water evaporate and are the air emissions for this unit.

Existing Approvals

This is the first air approval issued to this source.

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 21, 2006 with additional information received on October 30, 2006, November 13, 2006, and December 21, 2006.

Emission Calculations

See Appendix A of this document for detailed emission calculations (page 1).

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	2.63
PM-10	2.63
SO ₂	---
VOC	2.44E-03
CO	---
NO _x	---

HAPs	Potential to Emit (tons/yr)
Arsenic	9.15E-04
Selenium	9.15E-04
Lead	7.32E-04
Other HAPs	3.08E-03
Total	5.64E-03

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM and all criteria 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 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7 (Part 70 Permit Program).

County Attainment Status

The source is located in DeKalb County.

Pollutant	Status
PM-10	Attainment
PM 2.5	Attainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

Note: On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

- (a) DeKalb County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability - Entire Source section.
- (b) Volatile organic compounds (VOC) and Nitrogen Oxides emissions 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. DeKalb 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. See the State Rule Applicability - Entire Source section.

- (c) DeKalb County has been classified as attainment or unclassifiable in Indiana 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 - Entire Source section.
- (d) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 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.

Source Status

New Source PSD 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	2.63
PM-10	2.63
SO ₂	---
VOC	2.44E-03
CO	---
NO _x	---
Single HAP	9.15E-04
Combination HAPs	5.64E-03

This source is not a major stationary source under PSD because no 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.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This 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 Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this 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 this exemption for this source.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source was constructed in 2006, is not 1 of 28 source categories, and does not have the potential to emit greater than 250 tons per year of any regulated pollutant. Therefore, the requirements of 326 IAC 2-2 are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is located in DeKalb County, is not required to operate under a Part 70 permit, and emits less than five (5) tons per year of lead. Therefore, pursuant to 326 IAC 2-6-1(b), the source is only subject to additional information requests as provided in 326 IAC 2-6-5.

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.

326 IAC 6-4 (Fugitive Dust Emissions)

The Permittee 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.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This source is not a source of fugitive particulate matter. Therefore, the requirements of 326 IAC 6-5 are not applicable.

State Rule Applicability – Steel Cleaning

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the SCS machine shall not exceed 31.3 pounds per hour when operating at a process weight rate of 20.8 tons per hour.

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

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

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

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

This source was constructed after January 1, 1980 in DeKalb County, but does not have the potential to emit twenty-five (25) tons or more per year of VOC. Therefore, the SCS machine is not subject to the requirements of 326 IAC 8-1-6.

326 IAC 8-3 (Organic Solvent Degreasing Operations)

The SCS machine does not perform organic solvent degreasing operations. The SCS machine does not use any solvents or degreasers to clean steel. Therefore the SCS machine is not

subject to the requirements of 326 IAC 8-3.

326 IAC 8-6 (Organic Solvent Emission Limitations)

This source was constructed after January 1, 1980 in DeKalb County and does not have the potential to emit one hundred (100) tons or more per year of VOC. Therefore, the SCS machine is not subject to the requirements of 326 IAC 8-6.

Conclusion

The operation of this steel cleaning plant shall be subject to the conditions of the Exemption 033-23677-00064.

**Appendix A: Emission Calculations
Emissions From One (1) SCS Machine**

Company Name: Heidtman Steel Products
Address: 6118 County Road 42, Butler, Indiana 46721
Exemption: 033-23677-00098
Reviewer: ERG/SE
Date: December 20, 2006

Maximum Water Lost

50 gal/hr (provided by the source)

The Smooth Clean Surface (SCS) machine uses water and brushes to clean steel. The machine does not use any solvents or degreasers. To calculate worst case potential emissions, it is assumed that the pollutants found in the water are all released into the air with the 50 gal/hr of lost water.

	PM	PM10	VOC
Emission Factor	1440 mg/L	1440 mg/L	1,333 ug/L
Emission Factor (lb/gal)	1.20E-02	1.20E-02	1.11E-05
Potential to Emit (tons/yr)	2.63	2.63	2.44E-03

	Arsenic	Cadmium	Chromium	Lead	Mercury	Selenium	*Organic HAPs	Total HAPs
Emission Factor	0.5 mg/L	0.15 mg/L	0.2 mg/L	0.4 mg/L	0.001 mg/L	0.5 mg/L	1,333 ug/L	3.08 mg/L
Emission Factor (lb/gal)	4.18E-06	1.25E-06	1.67E-06	3.34E-06	8.36E-09	4.18E-06	1.11E-05	2.58E-05
Potential to Emit (tons/yr)	9.15E-04	2.74E-04	3.66E-04	7.32E-04	1.82986E-06	9.15E-04	2.44E-03	5.64E-03

The emission factors (mg/L and ug/L) above are provided by the source and are based on waste water testing from an identical source in Illinois.

*The Organic HAPs emission factor is the VOC emission factor. Many of the VOCs emitted from this unit are also HAPs, therefore the VOC emissions have been included in the HAP emissions as a worst case scenario.

Methodology

Emission Factor (lbs/gal) = Emission Factor (mg/L) * 1 lb/453,592.37 mg * 3.79 L/gal

Emission Factor (lbs/gal) = Emission Factor (ug/L) * 1 lb/453,592,370 ug * 3.79 L/gal

Potential to Emit (tons/yr) = Maximum Water Lost (gal/hr) * Emission Factor (lb/gal) * 8760 hrs/yr * 1 ton/2,000 lbs