

March 10, 2003

Dan Seybert
CTP Sheetmetal
604 East Le Grande Avenue
Indianapolis, Indiana 46203

Dear Mr. Seybert:

Re: Exempt Construction and Operation Status,
097-16050-00438

The application from CTP Sheetmetal, received on September 9, 2002, 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 welding, forming, and deburring operations to be located at 3505 Madison Avenue, Indianapolis, Indiana 46227, are classified as exempt from air pollution permit requirements:

- (a) Fifteen (15) welding stations, identified as Emissions Unit 01, including twelve (12) Tungsten Inert Gas (TIG) welding stations, with a maximum electrode usage capacity of 0.44 pounds of metal per hour (lb/hr), and three (3) Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 0.39 pounds of metal per hour (lb/hr).
- (b) Two (2) deburring operations, identified as Emissions Unit 02, including one (1) hand held deburring with pneumatic tools, and one (1) vibratory deburring, with total maximum capacity of 2400 pounds of metal per hour (lb/hr).
- (c) Metal presses, identified as Emissions Unit 03, including hydraulic presses and mechanical presses, with a total maximum capacity of 3600 pounds per hour (lb/hr).
- (d) One (1) parts washer, identified as Emissions Unit 04, using a maximum of 0.0183 gallons of cleaner and 0.0058 gallons of additive per hour.
- (e) Natural gas combustion heaters, identified as Emissions Unit 05, with a maximum combined heat input capacity of 1.175 million Btu per hour (mm Btu/hr).

The following conditions shall be applicable:

- (a) 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:
 - (1) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) 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.
- (b) Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operation) the owner or operator of this 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 not being handled in the cleaner;
 - (4) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
 - (5) provide a permanent, conspicuous label summarizing the operating requirement;
 - (6) 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.
- (c) Pursuant to 326 IAC 8-3-5 (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) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
 - (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 (38EC) (one hundred degrees Fahrenheit (100EF)), 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 (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent 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.
 - (6) The owner or operator of a cold cleaning facility shall ensure that the following

operating requirements are met:

- (A) Close the cover whenever articles are not being handled in the degreaser.
- (B) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (C) 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 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 OES and IDEM, Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source. If you have any questions, please feel free to contact Angelique Oliger at 327-2846 or aoliger@indygov.org.

Sincerely,

Original Signed by John B. Chavez
John B. Chavez, Administrator

aco

cc: Files
Air Compliance, Matt Mosier
IDEM, Mindy Hahn
Permits, Angelique Oliger

**Indiana Department of Environmental Management
Office of Air Quality
and
City of Indianapolis
Office of Environmental Services**

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name: CTP Sheetmetal
Source Location: 3505 Madison Avenue, Indianapolis, Indiana 46227
County: Marion
SIC Code: 3498
Exemption No.: 097-16050-00438
Permit Reviewer: Angelique Oliger

The Office of Environmental Services (OES) has reviewed an application from CTP Sheetmetal relating to the construction and operation of welding, forming, and deburring.

Permitted Emission Units and Pollution Control Equipment

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

- (a) Fifteen (15) welding stations, identified as Emissions Unit 01, including twelve (12) Tungsten Inert Gas (TIG) welding stations, with a maximum electrode usage capacity of 0.44 pounds of metal per hour (lb/hr), and three (3) Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 0.39 pounds of metal per hour (lb/hr).
- (b) Two (2) deburring operations, identified as Emissions Unit 02, including one (1) hand held deburring with pneumatic tools, and one (1) vibratory deburring, with total maximum capacity of 2400 pounds of metal per hour (lb/hr).
- (c) Metal presses, identified as Emissions Unit 03, including hydraulic presses and mechanical presses, with a total maximum capacity of 3600 pounds per hour (lb/hr).
- (d) One (1) parts washer, identified as Emissions Unit 04, using a maximum of 0.0183 gallons of cleaner and 0.0058 gallons of additive per hour.
- (e) Natural gas combustion heaters, identified as Emissions Unit 05, with a maximum combined heat input capacity of 1.175 million Btu per hour (mm Btu/hr).

Recommendation

The staff recommends to the Administrator 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 September 9, 2003.

Emission Calculations

See Appendix A (two pages) of this document for detailed calculations of emissions from natural gas combustion and parts washing. Calculations of emissions from welding operations submitted by the applicant have been verified and found to be accurate and correct.

Potential To Emit

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/year)
PM	0.071
PM-10	0.071
SO ₂	0.003
VOC	0.160
CO	0.108
NO _x	0.515

- (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.
- (b) 326 IAC 2-1.1-3(d) specifically exempts registering or permitting sources who have potential to emit PM and/or PM10 of less than 5 tons per year, less than 10 tons per year of NO_x, VOC and SO₂ and less than 25 tons per year of CO. As a result, this source should be exempt from any Registration or Permitting requirements under 326 IAC 2.

Actual Emissions

No previous emission data has been received from the source.

County Attainment Status

The source is located in Marion County.

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

- (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. Marion 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 and 40 CFR 52.21.
- (b) Marion 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 and 40 CFR 52.21.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.071
PM10	0.071
SO ₂	0.003
VOC	0.160
CO	0.108
NO _x	0.515
Single HAP	negligible
Combination HAPs	negligible

- (a) This new source is not a major stationary source because no attainment 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, and 40 CFR 52.21, the PSD requirements do not apply.

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) applicable to this source. The natural gas combustion units are not subject to 40 CFR 60 Subpart Dc because they are not sources of indirect heating.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source. The parts washer does not use any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,-trichloroethane, carbon tetrachloride, or chloroform in a total concentration greater than five (5) percent by weight, as a cleaning and/or drying agent. Therefore, 40 CFR Part 63 Subpart T does not apply.

State Rule Applicability - Entire Source

326 IAC 1-6 (Preventive Maintenance Plan)

This source is not subject to 326 IAC 1-6, because the source is not required to obtain a permit under 326 IAC 2.

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

This source is not subject to 326 IAC 2-4.1, because it is not a major source of hazardous air pollutants, as defined in 40 CFR 63.

326 IAC 2-6 (Emission Reporting)

This source is located in Marion County and the potential to emit any regulated pollutant is less than ten (10) tons per year. Therefore, 326 IAC 2-6 does 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 Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) 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 6-1(Nonattainment Area Limitations)

This rule does not apply to this source because the potential to emit of particulate is less than one hundred (100) tons per year and it is not a specifically listed source in 326 IAC 6.

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

Emissions unit 05 is not a source of indirect heating. Therefore, 326 IAC 6-2-4 does not apply.

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

This rule does not apply to the welding operations at this source because less than six hundred twenty-five (625) pounds of rod or wire is consumed per day (326 IAC 6-3-1(b)(9)).

326 IAC 7-1 (Sulfur Dioxide Emission Limitations)

This rule does not apply to this source because the potential to emit of each individual unit is less than 25 tons per year or 10 pounds per hour of Sulfur Dioxide.

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

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operation) the owner or operator of this 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 requirement;
- (f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

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

This rule does apply to this source because the degreaser does not have a remote solvent reservoir. Pursuant to 326 IAC 8-3-5 (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:

- (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (1) 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 (38EC) (one hundred degrees Fahrenheit (100EF));
 - (2) the solvent is agitated; or
 - (3) the solvent is heated.
- (b) 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 (38EC) (one hundred degrees Fahrenheit (100EF)), 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.
- (c) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (d) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (e) 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 (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
 - (1) A freeboard that attains a freeboard ratio of seventy-five

- hundredths (0.75) or greater.
- (2) A water cover when solvent used is insoluble in, and heavier than, water.
 - (3) 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.
- (f) 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.

Conclusion

The construction and operation of this welding, forming, and deburring shall be exempt from air pollution control permit requirements.

Emissions Calculation for Parts Washer

*The maximum amount of main cleaner used is 0.0183 gallons per hour. The maximum amount of additive used is 0.0058 gallons per hour.

*The percent (%) VOC by weight of main cleaner is ten (10) percent (%).

*The density of main cleaner is 9.16 pounds per gallon (lbs/gal).

*The percent (%) VOC by weight of additive is thirty (30) percent (%).

*The density of additive is 8.17 pounds per gallon (lbs/gal).

Potential Emission Calculations

$$\begin{aligned} &0.0183 \text{ gal main cleaner / hr} * 9.16 \text{ lbs main cleaner / gal main cleaner} \\ &\quad * 10 \text{ lbs VOC / 100 lbs main cleaner} * 1 \text{ ton / 2000 lbs} * 8760 \text{ hrs / yr} = \\ &\quad \mathbf{0.07 \text{ tons VOC per year}} \end{aligned}$$

$$\begin{aligned} &0.0058 \text{ gal additive / hr} * 8.17 \text{ lbs additive / gal additive} * 30 \text{ lbs VOC / 100 lbs main} \\ &\quad \text{cleaner} * 1 \text{ ton / 2000 lbs} * 8760 \text{ hrs / yr} = \mathbf{0.06 \text{ tons VOC per year}} \end{aligned}$$

**Appendix A: Emission Calculations
Natural Gas Combustion Only
MM Btu/hr 0.3 - < 10**

Company Name: CTP Sheetmetal
Address City IN Zip: 3505 Madison Avenue, Indianapolis, Indiana 46227
CP: 097-16050-00438
Reviewer: Angelique Oliger
Date: 03/10/2003

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

1.1750

10.3

Emission Factor in lb/MMCF	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
	13.7	13.7	0.6	100.0	5.3	21.0
Potential Emission in tons/yr	0.0705	0.0705	0.0031	0.5147	0.0273	0.1081

Methodology

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: uncontrolled = 100, Low Nox Burner = 17, Flue gas recirculation = 36

Emission Factors for CO: uncontrolled = 21, Low NOx Burner = 27, Flue gas recirculation = ND

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

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-03-006-03

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