City of Indianapolis
DPW
Department of Public Works
Bart Peterson, Mayor

August 17, 2006 Certified Mail: 7000 0600 0023 5186 4983

Dan Seybert
CTP
3555 Madison Avenue
Indianapolis, Indiana 46227

Dear Mr. Seybert: Re: Exemption 097-23219-00438

The application from CTP, received on June 9, 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 welding, forming, and deburring operations to be located at 3555 Madison Avenue, Indianapolis, Indiana 46203, are classified as exempt from air pollution permit requirements:

(a) Eighteen (18) welding stations, identified as Emissions Unit 01, including fifteen (15) Tungsten Inert Gas (TIG) welding stations, with a maximum electrode usage capacity of 0.59 pounds of metal per hour (lb/hr), and three (3) Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 1.5 pounds of metal per hour (lb/hr).

(b) Two (2) deburring operations, including one (1) hand held deburring with pneumatic tools, and one (1) vibratory deburring, with total maximum capacity of 2000 pounds of metal per hour (lb/hr).

(c) Metal presses, 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 02, using a maximum capacity of 300 gallons and a maximum cleaner usage rate of 0.025 gallons per hour.

(e) Natural gas combustion heaters identified as Emissions Unit 03 with a maximum combined heat input capacity of 5.98 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 Alternative Opacity Limitations), 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.

Department of Public Works
Office of Environmental Services
2700 Belmont Avenue
Indianapolis, IN 46221
317-327-2234
Fax 327-2274
TDD 327-5186
indygov.org/dpw

(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 (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 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 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.

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 Warner Waters at 327-2182 or wwaters@indygov.org.

Sincerely,

Felicia A. Robinson, Administrator
Office of Environmental Services

wmw

cc: Files
Air Compliance, Matt Mosier
IDEM, Mindy Hahn
Permits, Warner Waters

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
Source Location:	3555 Madison Avenue, Indianapolis, Indiana 46227
County:	Marion
SIC Code:	3498
Exemption No.:	097-23219-00438
Permit Reviewer:	Warner Waters

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

Permitted Emission Units and Pollution Control Equipment

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

(a) Eighteen (18) welding stations, identified as Emissions Unit 01, including fifteen (15) Tungsten Inert Gas (TIG) welding stations, with a maximum electrode usage capacity of 0.59 pounds of metal per hour (lb/hr), and three (3) Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 1.5 pounds of metal per hour (lb/hr).

(b) Two (2) deburring operations, including one (1) hand held deburring with pneumatic tools, and one (1) vibratory deburring, with total maximum capacity of 2000 pounds of metal per hour (lb/hr).

(c) Metal presses, 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 02, using a maximum capacity of 300 gallons and a maximum cleaner usage rate of 0.025 gallons per hour.

(e) Natural gas combustion heaters identified as Emissions Unit 03 with a maximum combined heat input capacity of 5.98 million Btu per hour (mm Btu/hr).

Existing Approvals

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

Exemption EX 097-16050-00438 issued on 03-10-2003.

Recommendation

The staff recommends to the Administrator 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.

A complete application for the purposes of this review was received on June 9, 2006.

Emission Calculations

See Appendix A (five pages) of this document for detailed calculations. 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, inclulding 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	0.725
PM-10	0.875
SO_2	0.01
VOC	1.10
CO	2.20
NO_x	2.62
HAP	negligible

(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.

(c) 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.

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	Unclassifiable
PM-2.5	Nonattainment
SO_2	Maintenance attainment
NO_2	Attainment
1- hour Ozone	Maintenance attainment
8-hour Ozone	Basic nonattainment
CO	Attainment
Lead	Unclassifiable

(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 and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) Marion County has been classified as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. Until U.S. EPA adopts specific New Source Review rules for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions, pursuant to the Non-attainment New Source Review requirements. See the State Rule Applicability for the source section.

(c) 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.

Source Status

Existing 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	0.725
PM10	0.875
SO_2	0.01
VOC	1.10
CO	2.20
NO_x	2.62
Single HAP	negligible
Combination HAPs	negligible

(a) This existing 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.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source including emissions from this permit 097-23219-00438 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.

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 2-1.1-5 (Air Quality Requirements)

Marion County has been designated as nonattainment for PM2.5. According to an EPA guidance memo dated April 5, 2005, PM-10 is to be utilized as a surrogate for PM2.5 until the EPA can promulgate the PM2.5 implementation rule. PM-10 emissions, and therefore PM2.5 emissions, from this source are less than one hundred (100) tons per twelve consecutive month period. There have been no modifications to this source such that it is a major source of PM-10 emissions. Therefore, this source is not subject to nonattainment new source review requirements for PM2.5 emissions.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) and
326 IAC 2-3 (Emission Offset)

This existing source is not a major stationary source because no attainment regulated pollutant emissions are equal to or greater than two hundred fifty (250) tons per year, this source is not one of the 28 listed source categories under 326 IAC 2-2 or 326 IAC 2-3 and no nonattainment regulated pollutant emissions are equal to or greater than one hundred (100) tons per year. There have been no modifications or revisions to this source that were major modifications pursuant to 326 IAC 2-2 or 326 IAC 2-3. Therefore, 326 IAC 2-2 or 326 IAC 2-3 are each not applicable to CTP.

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)

Pursuant to 326 IAC 2-6-1(a)(1), (2), and (3), this source is not subject to 326 IAC 2-6 (Emission Reporting) because, it is not required to have an operating permit under 326 IAC 2-7, it does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year, and it is not located in Lake or Porter Counties.

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 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 6-2-4 (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)). This rule does not apply to the deburring operations because the operations have a potential to emit less than 0.0551 lbs / hr.

326 IAC 6.5-1-2 (Particulate Matter Emission Limitations Except Lake County)

This rule does not apply to this source because the potential to emit of particulate is less than one hundred (100) tons per year, actual emissions are less than ten (10) tons per year and it is not a specifically listed source in 326 IAC 6.5-6-1.

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:

(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.

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 (38°C) (one hundred degrees Fahrenheit (100°F));
(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 (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.

(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 (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)):

(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

This welding, forming, and deburring operation shall be exempt from air pollution control permit requirements.

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

Company Name: CTP
Address City IN Zip: 3555 Madison Avenue, Indianapolis, Indiana 46227
Permit Number: 097-23219-00438
Reviewer: Warner Waters
Date: 7/12/2006

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
6.0	52.4

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 0.365	5.5 0.362	84.0
Potential Emission in tons/yr	0.050	0.2	0.016	2.6	0.1	2.2

*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.

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

Company Name: CTP
Address City IN Zip: 3555 Madison Avenue, Indianapolis, Indiana 46227
Permit Number: 097-23219-00438
Reviewer: Warner Waters
Date: 7/12/2006

	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	5.500E-05	3.143E-05	1.964E-03	4.715E-02	8.905E-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	1.310E-05	2.881E-05	3.667E-05	9.953E-06	5.500E-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.

Appendix A: Emissions Calculations
Welding and Thermal Cutting

Company Name: CTP
Address City IN Zip: 3555 Madison Avenue, Indianapolis, Indiana 46227
Permit Number: 097-23219-00438
Reviewer: Warner Waters
Date: 7/12/2006

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
WELDING				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Submerged Arc				0.036	0.011			0.000	0.000	0.000	0	0.000
Metal Inert Gas (MIG)(carbon steel)	3	1.5		0.0055	0.0005			0.025	0.002	0.000	0	0.002
Stick (E7018 electrode)				0.0211	0.0009			0.000	0.000	0.000	0	0.000
Tungsten Inert Gas (TIG)(carbon steel)	15	0.55		0.0055	0.0005			0.045	0.004	0.000	0	0.004
Oxyacetylene(carbon steel)	0			0.0055	0.0005			0.000	0.000	0.000	0	0.000

FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxyacetylene				0.1622	0.0005	0.0001	0.0003	0.000	0.000	0.000	0.000	0.000
Oxymethane				0.0815	0.0002		0.0002	0.000	0.000	0.000	0.000	0.000
Plasma**				0.0039				0.000	0.000	0.000	0.000	0.000

EMISSION TOTALS		
Potential Emissions lbs/hr	0.07	0.01
Potential Emissions lbs/day	1.68	0.15
Potential Emissions tons/year	0.31	0.03

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.
**Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculting the emissions.
Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick
Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)
Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Emissions Calculation for Parts Washer

*The maximum amount of main cleaner used is 0.025 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).

Potential Emission Calculations

0.025 gal main cleaner / hr * 9.16 lbs main cleaner / gal main cleaner
*10 lbs VOC / 100 lbs main cleaner * 1 ton / 2000 lbs * 8760 hrs / yr =
1.00 tons VOC per year

Emissions Calculation for Handheld Deburring

1 lb PM / day * 365 days / yr = 365 lb / yr = 0.1825 tons / yr

2 operations → = 0.365 tons PM / yr

* Methodology

Trivial Activity per 326 IAC 2-7-1 (40)(f).
Trivial Activity per 326 IAC 2-7-1 (40)(a) emit < 1 lb / day.

Assume PM = PM 10

Appendix A: Emissions Calculations
TOTAL
POTENTIAL EMISSIONS SUMMARY

Company Name: CTP
Address City IN Zip: 3555 Madison Avenue, Indianapolis, India
Permit Number: 097-23219-00438
Reviewer: Warner Waters
Date: 7/12/2006

POTENTIAL EMISSIONS SUMMARY

EMITTING ACTIVITES	AIR POLLUTANTS (tpy)								
	CO	Pb	Nox	PM	PM10	SO2	VOC	HAP Single	HAP Combined
Welding	N/A			0.31	0.31				0.03
Parts Washer							1.00		
Natural Gas Fired Heaters	2.2	0	2.6	0.05	0.2	0.01	0.1	N/A	N/A
Deburring				0.365	0.365				
Total	2.2	0	2.6	0.725	0.875	0.01	1.10		0.03