INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: July 18, 2011

RE: CTP, Division of Tube Processing Corp. / 097 - 30616 - 00593

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval - Registration

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 IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

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, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of 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
FN-REGIS.dot 1/2/08

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REGISTRATION
OFFICE OF AIR QUALITY

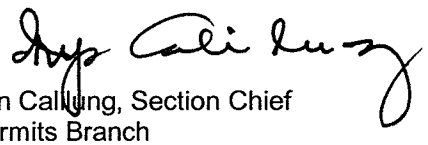
CTP, Division of Tube Processing Corporation

Plant 1, 3555 Madison Avenue
and
Plant 2, 3750 South Shelby Street
Indianapolis, Indiana 46227

Pursuant to 326 IAC 2-5.1 (Construction of New Sources: Registrations) and 326 IAC 2-5.5 (Registrations), (herein known as the Registrant) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this registration.

Registration No. 097-23537-00593	
Original Signed by: Felicia A. Robinson, Administrator, Office of Environmental Services	Issuance Date: July 2, 2007

First Notice - Only Change No. 097-28913-00593, issued on February 4, 2010

First Registration Revision No. 097-30616-00593	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: July 18, 2011

SECTION A SOURCE SUMMARY

This registration is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Registrant should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Registrant to obtain additional permits pursuant to 326 IAC 2.

A.1 General Information

The Registrant owns and operates a stationary fabricated metal product operation source.

Source Address:	Plant 1, 3555 Madison Avenue, Indianapolis, IN 46227; and Plant 2, 3750 South Shelby Street, Indianapolis, IN 46227
General Source Phone Number:	(317) 782-9628
SIC Code:	3498 (Fabricated Pipe and Pipe Fittings)
County Location:	Marion County
Source Location Status:	Nonattainment for PM 2.5 standard Attainment for all criteria pollutants
Source Status:	Registration

A.2 Source Definition

This stationary fabricated metal product company consists of two (2) plants:

(a) Plant 1, CTP Sheet metal, is located at 3555 Madison Avenue, Indianapolis, Indiana 46227; and

(b) Plant 2, CTP, Division of Tube Processing Corporation, is located at 3750 South Shelby Street, Indianapolis, Indiana 46227

The two (2) plants have been determined in the registration No. R097-23537-00593 to be one source since they are located on adjacent properties, belong to the same industrial grouping, have the same two SIC codes, and are owned by one (1) company.

A.2 Emission Units and Pollution Control Equipment Summary

This stationary stationary fabricated metal product plants consist of the following emission units and pollution control devices:

Plant 1 – CTP Sheetmetal, 3555 Madison Avenue

(a) Twenty-one (21) welding units, identified as Emission Units W01-W21, constructed in 2007 and approved for modification in 2011, all exhausting to the indoors, consisting of the following units:

(1) Fifteen (15) Tungsten Inert Gas (TIG) welding stations, with a maximum electrode usage capacity of 0.59 pounds of metal per hour (lb/hr);

(2) Three (3) Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 1.5 pounds of metal per hour (lb/hr);

(3) Two (2) portable Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 1.5 pounds of metal per hour (lb/hr); and

(4) One (1) seam welder, with a maximum electrode usage capacity of 0.59 pounds of metal per hour (lb/hr).

Under the NESHAP for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX(6X)) W01-W21 are considered affected facilities.

(b) Two (2) deburring operations, identified as Emission Units D01-D02, installed in 2007, 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), and exhausting to the indoors.

(c) One (1) parts washer, identified as Emissions Unit PW02, installed in 2007, using a maximum capacity of 300 gallons and a maximum cleaner usage rate of 0.025 gallons per hour, and exhausting to the indoors.

(d) Ten (10) natural gas fired combustion heaters, identified as Emissions Unit 03, installed in 2002, with a maximum combined heat input capacity of 5.98 million Btu per hour (mm Btu/hr), and exhausting to the indoors.

(e) One (1) plasma cutter, identified as Emission Unit P01, approved in 2011 for construction, with a maximum metal cutting rate of 56.29 inches per, and exhausting to the indoors.

Plant 2 - CTP, Division of Tube Processing Corporation 3750 South Shelby Street

(a) Two (2) acid wash lines for cleaning metal parts, identified as Emissions Unit 06, installed in 1976, approved in 2011 for modification, and exhausting to the indoors. Each wash line contains two (2) acid tanks, two (2) soap tanks, and two (2) rinse tanks containing water.

(b) Two (2) abrasive blast cabinets, consisting of the following units:

(1) One (1) Cyclo-Blast blast cabinet, identified as Emissions Unit 07, installed in 1974, utilizing steel shot as blasting media, which a maximum capacity of, using an integral cyclone to recirculate recovered blasting media and a baghouse as control, and exhausting to the indoors.

Under the NESHAP for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX(6X)) Emissions Unit 07 is considered an affected facility.

(2) One (1) ICM Superhone 3600 blast cabinet, identified as Emissions Unit 08, installed in 1974, utilizing glass shot as blasting media, which a maximum capacity of, using an integral cyclone to recirculate recovered blasting media and a baghouse as control, and exhausting to the indoors.

(c) Eighteen (18) welding units, identified as Emission Units W22-W39, installed in 1974, and approved for modification in 2011, with a maximum electrode usage estimated at 105,208 pounds per year, all exhausting to the indoors, consisting of the following units:

(1) Nine (9) Tungsten Inert Gas (TIG) welding stations, with a maximum electrode usage capacity of 1.99 pounds of metal per hour (lb/hr); and

(2) Nine (9) Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 1.99 pounds of metal per hour (lb/hr).

Under the NESHAP for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX(6X)) W22-W39 are considered affected facilities.

(d) One (1) thirty (30) gallon cold cleaning parts washer, installed in 1974, utilizing up to ninety (90) gallons of naptha solvent per year, and exhausting to the indoors.

(e) Ten (10) natural gas fired space heaters, installed in 1974, with a combined maximum heat input of 1.35 MMBtu/hr, and exhausting to the indoors.

(f) One (1) natural gas fired Air Make-Up Unit, approved in 2011 for construction, with a combined maximum heat input of 0.05 MMBtu/hr, and exhausting to the indoors.

(g) Fourteen (14) non-HAP emitting brazing stations, installed in 1974, and exhausting to the indoors.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this registration shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Effective Date of Registration [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this registration is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

B.3 Registration Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation), this registration to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this registration.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this registration.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this registration shall not require revocation of this registration.

(d) For any cause which establishes in the judgment of IDEM the fact that continuance of this registration is not consistent with purposes of this article.

B.4 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to Registration No. 097-23537-00593 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this registration.

B.5 Annual Notification [326 IAC 2-5.1-2(f)(3)] [326 IAC 2-5.5-4(a)(3)]

Pursuant to 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3):

(a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this registration.

(b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

(c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.6 Source Modification Requirement [326 IAC 2-5.5-6(a)]

Pursuant to 326 IAC 2-5.5-6(a), 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.

B.7 Registrations [326 IAC 2-5.1-2(i)]

Pursuant to 326 IAC 2-5.1-2(i), this registration does not limit the source's potential to emit.

B.8 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) The Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit, for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee’s control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

The Permittee shall implement the PMPs.

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

C.1 Opacity [326 IAC 5-1]

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, unless otherwise stated in this registration:

(a) 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.

(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.

C.2 Fugitive Dust Emissions [326 IAC 6-4]

The Registrant 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 (Fugitive Dust Emissions).

SECTION D.1 OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

Plant 1 – CTP Sheetmetal, 3555 Madison Avenue

(a) Twenty-one (21) welding units, identified as Emission Units W01-W21, constructed in 2007 and approved for modification in 2011, all exhausting to the indoors, consisting of the following units:

(1) Fifteen (15) Tungsten Inert Gas (TIG) welding stations, with a maximum electrode usage capacity of 0.59 pounds of metal per hour (lb/hr);

(2) Three (3) Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 1.5 pounds of metal per hour (lb/hr);

(3) Two (2) portable Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 1.5 pounds of metal per hour (lb/hr); and

(4) One (1) seam welder, with a maximum electrode usage capacity of 0.59 pounds of metal per hour (lb/hr).

Under the NESHAP for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX(6X)) W01-W21 are considered affected facilities.

(b) Two (2) deburring operations, identified as Emission Units D01-D02, installed in 2007, 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), and exhausting to the indoors.

(c) One (1) parts washer, identified as Emissions Unit PW02, installed in 2007, using a maximum capacity of 300 gallons and a maximum cleaner usage rate of 0.025 gallons per hour, and exhausting to the indoors.

(d) Ten (10) natural gas fired combustion heaters, identified as Emissions Unit 03, installed in 2002, with a maximum combined heat input capacity of 5.98 million Btu per hour (mm Btu/hr), and exhausting to the indoors.

(e) One (1) plasma cutter, identified as Emission Unit P01, approved in 2011 for construction, with a maximum metal cutting rate of 56.29 inches per, and exhausting to the indoors.

Plant 2 - CTP, Division of Tube Processing Corporation 3750 South Shelby Street

(a) Two (2) acid wash lines for cleaning metal parts, identified as Emissions Unit 06, installed in 1976, approved in 2011 for modification, and exhausting to the indoors. Each wash line contains two (2) acid tanks, two (2) soap tanks, and two (2) rinse tanks containing water.

(b) Two (2) abrasive blast cabinets, consisting of the following units:

(1) One (1) Cyclo-Blast blast cabinet, identified as Emissions Unit 07, installed in 1974, utilizing steel shot as blasting media, which a maximum capacity of, using an integral cyclone to recirculate recovered blasting media and a baghouse as control, and exhausting to the indoors.

Under the NESHAP for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX(6X)) Emissions Unit 07 is considered an affected facility.

(2) One (1) ICM Superhone 3600 blast cabinet, identified as Emissions Unit 08, installed in 1974, utilizing glass shot as blasting media, which a maximum capacity of, using an integral cyclone to recirculate recovered blasting media and a baghouse as control, and exhausting to the indoors.

(c) Eighteen (18) welding units, identified as Emission Units W22-W39, installed in 1974, and approved for modification in 2011, with a maximum electrode usage estimated at 105,208 pounds per year, all exhausting to the indoors, consisting of the following units:

(1) Nine (9) Tungsten Inert Gas (TIG) welding stations, with a maximum electrode usage capacity of 1.99 pounds of metal per hour (lb/hr); and

(2) Nine (9) Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 1.99 pounds of metal per hour (lb/hr).

Under the NESHAP for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX(6X)) W22-W39 are considered affected facilities.

(d) One (1) thirty (30) gallon cold cleaning parts washer, installed in 1974, utilizing up to ninety (90) gallons of naptha solvent per year, and exhausting to the indoors.

(e) Ten (10) natural gas fired space heaters, installed in 1974, with a combined maximum heat input of 1.35 MMBtu/hr, and exhausting to the indoors.

(f) One (1) natural gas fired Air Make-Up Unit, approved in 2011 for construction, with a combined maximum heat input of 0.05 MMBtu/hr, and exhausting to the indoors.

(g) Fourteen (14) non-HAP emitting brazing stations, installed in 1974, and exhausting to the indoors.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

D.1.1 Particulate [326 IAC 6.5]

Pursuant to 326 IAC 6.5-1-2(a), particulate matter emissions from the following facilities shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per dry standard cubic foot (dscf)):

(1) Twenty-one (21) welding units, identified as Emission Units W01-W21;
(2) Two (2) deburring operations, identified as Emission Units D01-D02;
(3) One (1) plasma cutter, identified as Emission Unit P01;
(4) Metal presses, including hydraulic presses and mechanical presses, identified as Emissions Units MP02;
(5) Eighteen (18) welding units, identified as Emission Units W22-W39; and
(6) Fourteen (14) non-HAP emitting brazing stations.
(7) One (1) Cyclo-Blast blast cabinet, identified as Emissions Unit 07; and
(8) One (1) ICM Superhone 3600 blast cabinet, identified as Emissions Unit 08.

D.1.2 Cold Cleaner Operation (326 IAC 8-3-2)

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.

D.1.3 Cold Cleaner Operation (326 IAC 8-3-5)

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.

Compliance Determination Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

D.1.4 Particulate Control

In order to comply with Condition D.1.1, the cyclones for particulate control shall be in operation and control emissions from Emission Unit 07 and Emission Unit 08 at all times the Cyclo-Blast blast cabinet and the ICM Superhone 3600 blast cabinet are in operation.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

REGISTRATION
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3).

Company Name:	CTP, Division of Tube Processing Corporation
Address:	Plant 1: 3555 Madison Avenue; and Plant 2: 3750 South Shelby Street
City:	Indianapolis, Indiana 46227
Phone Number:	(317) 782-9628
Registration No.:	R097-23537-00593

I hereby certify that CTP, Division of Tube Processing Corporation is:	☐ still in operation. ☐ no longer in operation.
I hereby certify that CTP, Division of Tube Processing Corporation is:	☐ in compliance with the requirements of Registration No. R097-23537-00593. ☐ not in compliance with the requirements of Registration No. R097-23537-00593.

Authorized Individual (typed):
Title:
Signature:
Phone Number:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration Revision

Source Description and Location

Source Name:	**CTP, Division of Tube Processing Corporation**
Source Location:	**Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227** **Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227**
County:	**Marion**
SIC Code:	**3498 (Fabricated Pipe and Pipe Fittings)**
Registration No.:	**R097-23537-00593**
Registration Issuance Date:	**July 2, 2007**
Registration Revision No.:	**097-30616-00593**
Permit Reviewer:	**Sarah Conner, Ph. D.**

On June 8, 2011, the Office of Air Quality (OAQ) received an application from CTP, Division of Tube Processing Corporation related to changes made at their existing stationary fabricated metal product source. The source changed the product used in the acid wash lines which increased the PTE pollutant VOC from the acid wash lines. In addition, the source has made other changes at the plants, including the addition of welding emission units, a plasma cutter, and an Air Make-Up Unit.

Source Definition

This stationary fabricated metal product company consists of the following plants:

(a) Plant 1, CTP Sheet metal, is located at 3555 Madison Avenue, Indianapolis, Indiana 46227, Plant ID 097-00438; and

(b) Plant 2, CTP, Division of Tube Processing Corporation, is located at 3750 South Shelby Street, Indianapolis, Indiana 4622, Plant ID 097-00593.

These plants are located on adjacent properties, have the same SIC codes of (34) and are under common control; therefore, they will be considered one (1) source, as defined by 326 IAC 2-7-1(22). This determination was initially made under Registration No. R097-23537-00593, issued on July 2, 2007.

Existing Approvals

The source was issued Registration No. R097-23537-00593 on July 2, 2007. The source has since received Notice-Only Change No. 097-28913-00593, issued on February 4, 2010.

County Attainment Status

The source is located in Marion County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of Indianapolis bounded by 11th Street on the north; Capitol Avenue on the west; Georgia Street on the south; and Delaware Street on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of Indianapolis and Marion County.
O_3	Attainment effective November 8, 2007, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Attainment effective July 10, 2000, for the part of Franklin Township bounded by Thompson Road on the south; Emerson Avenue on the west; Five Points Road on the east; and Troy Avenue on the north. Attainment effective July 10, 2000, for the part of Wayne Township bounded by Rockville Road on the north; Girls School Road on the east; Washington Street on the south; and Bridgeport Road on the west. The remainder of the county is not designated.
[1]Attainment effective October 18, 2000, for the 1-hour ozone standard for the Indianapolis area, including Marion County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour designation was revoked effective June 15, 2005. Basic nonattainment designation effective federally April 5, 2005, for PM2.5.	

(a) Ozone Standards
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 ozone. Marion 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.

(b) $PM_{2.5}$
Marion County has been classified as nonattainment for $PM_{2.5}$ in 70 FR 943 dated January 5, 2005. On May 8, 2008, U.S. EPA promulgated specific New Source Review rules for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. Therefore, direct $PM_{2.5}$ and SO_2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
Marion 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.

Fugitive Emissions

The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-5.1-2 (Registrations) applicability.

Status of the Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed revision, after consideration of all enforceable limits established in the effective permits:

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to Revision (tons/year)									
	PM	PM10*	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e**	Total HAPs	Worst Single HAP
Acid Wash Lines	-	-	-	-	-	2.21	-	-	-	-
Welding Operations	0.70	0.70	0.70	-	-	-	-	-	0.06	0.023 (Mn)
Natural Gas Combustion	0.06	0.24	0.24	0.02	3.15	0.17	2.64	3,800.09	0.06	0.06 (Hexane)
Blasting Operations	6.76	6.03	6.03	-	-	-	-	-	-	-
Parts Washers	-	-	-	-	-	1.29	-	-	-	-
Deburring, metal presses and brazing	0.37	0.37	0.37	-	-		-	-	-	-
Coating Booth	-	-	-	-	-	0.47		-	0.008	0.004 Toluene
Total PTE of the Entire Source	**7.89**	**7.34**	**7.34**	**0.02**	**3.15**	**4.14**	**2.64**	**3,800.09**	**0.13**	0.06 (Hexane)
Registration Levels**	25	25	25	25	25	25	100	100,000	25	10

- = negligible
These emissions are based upon R097-23537-00593, issued on July 2, 2007.
* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by from CTP, Division of Tube Processing Corporation on June 8, 2011, related to changes made at their existing stationary fabricated metal product source. The source changed the product used in the acid wash lines which increased the PTE pollutant VOC from the acid wash lines. In addition, the source has made other changes at the plants, including the addition of welding emission units, a plasma cutter, and an Air Make-Up Unit and removal of the coating booth.

The following is a list of the new emission units:

(a) One (1) plasma cutter, identified as Emission Unit P01, approved in 2011 for construction, with a maximum metal cutting rate of 56.29 inches per, and exhausting to the indoors.

(b) One (1) natural gas fired Air Make-Up Unit, approved in 2011 for construction, with a combined maximum heat input of 0.05 MMBtu/hr, and exhausting to the indoors.

The following is a list of the modified emission units:

(c) Twenty-one (21) welding units, identified as Emission Units W01-W21, constructed in 2007 and approved for modification in 2011, all exhausting to the indoors, consisting of the following units:

(1) Fifteen (15) Tungsten Inert Gas (TIG) welding stations, with a maximum electrode usage capacity of 0.59 pounds of metal per hour (lb/hr);

(2) Three (3) Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 1.5 pounds of metal per hour (lb/hr);

(3) Two (2) portable Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 1.5 pounds of metal per hour (lb/hr); and

(4) One (1) seam welder, with a maximum electrode usage capacity of 0.59 pounds of metal per hour (lb/hr).

(d) Eighteen (18) welding units, identified as Emission Units W22-W39, installed in 1974, and approved for modification in 2011, with a maximum electrode usage estimated at 105,208 pounds per year, all exhausting to the indoors, consisting of the following units:

(1) Nine (9) Tungsten Inert Gas (TIG) welding stations, with a maximum electrode usage capacity of 1.99 pounds of metal per hour (lb/hr); and

(2) Nine (9) Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 1.99 pounds of metal per hour (lb/hr).

(e) Two (2) acid wash lines for cleaning metal parts, identified as Emissions Unit 06, installed in 1976, approved in 2011 for modification, and exhausting to the indoors. Each wash line contains two (2) acid tanks, two (2) soap tanks, and two (2) rinse tanks containing water.

"Integral Part of the Process" Determination

Pursuant to Registration No. R097-23537-00593, issued on July 2, 2007, the company submitted the following justification such that the cyclones for each of the two (2) abrasive blast cabinets identified as Emissions Unit 07 and Emissions Unit 08 be considered as an integral part of the abrasive blasting process.

(a) The primary purpose of each cyclone is not to control air pollution. The primary purpose of each cyclone is to recover blasting media from the process so that it can be recirculated in each of the two (2) abrasive blast cabinets. Each abrasive blast cabinet is designed to recover and recirculate the blast media such that new blasting media does not need to be continually introduced into abrasive blast cabinet operation. The baghouse associated with each abrasive blast cabinet is then utilized to control particulate emissions from each cyclone's exhaust.

IDEM, OAQ, evaluated the justifications and agreed that the cyclones for each of the two (2) abrasive blast cabinets identified as Emissions Unit 07 and Emissions Unit 08 will be considered as an integral part of each abrasive blast cabinet. Therefore, the permitting level will be determined using the potential to emit after the cyclone in each abrasive blasting process. Operating conditions in the Registration will specify that the cyclones for each of the two (2) abrasive blast cabinets identified as Emissions Unit 07 and Emissions Unit 08 shall operate at all times when the abrasive blasting process is in operation. This determination was made as part of this R097-23537-00593, issued on July 2, 2007.

Enforcement Issues

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – Registration Revision

The following table is used to determine the appropriate permit level under 326 IAC 2-5.5-6. This table reflects the PTE before controls of the proposed revision.

Process/ Emission Unit	PTE of Proposed Revision (tons/year)									
	PM	PM10*	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e**	Total HAPs	Worst Single HAP
Acid Wash Lines	-	-	-	-	-	12.74	-	-	-	-
Welding Operations	1.31	1.31	1.31	-	-	-	-	-	1.69	0.83 (Cr)
Natural Gas Combustion	0.06	0.24	0.24	0.02	3.17	0.17	2.66	3,826.01	0.06	0.06 (Hexane)
Total PTE of Proposed Revision	**1.37**	**1.55**	**1.55**	**0.02**	**3.17**	**12.92**	**2.66**	**3,826.01**	**1.75**	0.06 (Hexane)

- = negligible
* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

This Registration is being revised through a Registration Revision pursuant to 326 IAC 2-5.5.6(g), because the revision involves the modification of the product used in the two (2) acid wash lines for cleaning metal parts, identified as Emissions Unit 06, with potential to emit (PTE) pollutant VOC greater than the thresholds in 326 IAC 2-5.5.6(d)(12) and to 326 IAC 2.1-1-3e)(1)(D)

PTE of the Entire Source After Issuance of the Registration Revision

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Process/ Emission Unit	Potential To Emit of the Entire Source with the Revision (tons/year)									
	PM	PM10*		SO_2	NOx	VOC	CO	**GHGs as CO_2e****	Total HAPs	Worst Single HAP
Acid Wash Lines	-	-	-	-	-	~~2.21~~ **12.74**	-	**-**	-	-
Welding Operations	~~0.70~~ **1.31**	~~0.70~~ **1.31**	~~0.70~~ **1.31**	-	-	-	-	**-**	~~0.06~~ **1.69**	~~0.023 (Mn)~~ **0.83 (Cr)**
Natural Gas Combustion	0.06	0.24	0.24	0.02	~~3.15~~ **3.17**	0.17	~~2.64~~ **2.66**	**3,826.01**	0.06	0.06 (Hexane)
Blasting Operations	6.76	6.03	6.03	-	-	-	-	**-**	-	-
[1]Parts Washers	-	-	-	-	-	~~1.29~~ **1.30**	-	**-**	-	-
[2]Deburring, metal presses and brazing and brazing	~~0.37~~ **2.92**	~~0.37~~ **2.92**	~~0.37~~ **2.92**	-	-	-	-	**-**	-	-
[3]~~Coating Booth~~	**-**	**-**	**-**	**-**	**-**	~~0.47~~	-	-	~~0.008~~	~~0.004 Toluene~~
[4]Paved and Unpaved Roads	**4.56**	**1.16**	**0.12**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total PTE of the Entire Source	~~7.89~~ **15.61**	~~7.34~~ **11.66**	~~7.34~~ **10.62**	0.02	~~3.15~~ **3.17**	~~4.14~~ **14.22**	~~2.64~~ **2.66**	**3,826.01**	~~0.13~~ **1.75**	~~0.06 (Hexane)~~ **0.83 (Cr)**
Registration Levels**	25	25	25	25	25	25	100	**100,000**	25	10

- = negligible
* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.
Note 1: The parts washers and solvents have not changed. The change in PTE is from revising the calculations for the revision.
Note 2: The fourteen (14) non-HAP emitting brazing stations were assumed to have negligible emissions and were not calculated in Registration No. R097-23537-00593, issued on July 2, 2007. There have been no changes to the brazing stations. The change in PTE is from estimating emissions from the brazing stations at the source for this revision.
Note 3: The source has removed the coating booth.
Note 4: The paved and unpaved roads were assumed to have negligible emissions and were not calculated in Registration No. R097-23537-00593, issued on July 2, 2007. The paved and unpaved roads have not changed. The increase in PTE is from estimating emissions from the paved and unpaved roads at the source for this revision.

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted)

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)									
	PM	PM10*	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e**	Total HAPs	Worst Single HAP
Acid Wash Lines	-	-	-	-	-	12.74	-	-	-	-
Welding Operations	1.31	1.31	1.31	-	-	-	-	-	1.69	0.83 (Cr)
Natural Gas Combustion	0.06	0.24	0.24	0.02	3.17	0.17	2.66	3,826.01	0.06	0.06 (Hexane)
Blasting Operations	6.76	6.03	6.03	-	-	-	-	-	-	-

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)									
	PM	PM10*	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e**	Total HAPs	Worst Single HAP
Parts Washers	-	-	-	-	-	1.30	-	-	-	-
Deburring, metal presses and brazing and brazing	2.92	2.92	2.92	-	-	-	-	-	-	-
Paved and Unpaved Roads	4.56	1.16	0.12	-	-	-	-	-	-	-
Total PTE of the Entire Source	15.61	11.66	10.62	0.02	3.17	14.22	2.66	3,826.01	1.75	0.83 (Cr)
Registration Levels**	25	25	25	25	25	25	100	100,000	25	10

- = negligible
* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

(a) This revision will not change the registration status of the source, because the uncontrolled/unlimited potential to emit of pollutants PM, PM10, PM2.5 and VOC from the entire source will still be within the ranges listed in 326 IAC 2-5.5-1(b)(1) and the PTE of all other regulated criteria pollutants will still be less than the ranges listed in 326 IAC 2-5.5-1(b)(1). Therefore, the source will still be subject to the provisions of 326 IAC 2-5.5 (Registrations).

(b) This revision will not change the minor status of the source, because the uncontrolled/unlimited potential to emit of any single HAP will still be less than ten (10) tons per year and the PTE of a combination of HAPs will still be less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

(c) This revision will not change the minor status of the source, because the uncontrolled/unlimited potential to emit greenhouse gases (GHGs) will still be less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

The federal rule applicability for this revision is as follows:

New Source Performance Standards (NSPS)

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included for this proposed revision.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Paint Stripping and Surface Coating at Area Sources, 40 CFR 63.1116, Subpart HHHHHH, are not included for this proposed revision, since the source does not use chemical strippers containing methylene chloride, does not perform spray application of coatings, as defined in §63.11180, to motor vehicles and mobile equipment, and does not perform spray application of coatings that contain the target HAP, as defined in §63.11180, to a plastic and/or metal substrate on a part or product.

(c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) Area Source Standards for Nine Metal Fabrication and Finishing Source Categories, Subpart XXXXXX are not included in the permit because this source is not primarily engaged in the operations in one of the nine source categories listed in paragraphs (a)(1) through (9) of 40 CFR 63.11514. In addition, CTP, Division of Tube Processing Corporation actually operates under SIC code 3498 "Fabricated Pipe and Pipe Fittings", which is not identified in the list of Standard Industrial Classification (SIC) codes included in Table 1 of the Federal Register (FR) publication of the final rule; therefore, the requirements of NESHAP Subpart XXXXXX are not applicable to the source.

(d) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included for this proposed revision.

Compliance Assurance Monitoring (CAM)

(e) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The state rules applicable to the existing emission units at this source will not change as a result of this revision.

The following state rules are applicable to the proposed revision:

(a) 326 IAC 2-5.5 (Registrations)
Registration applicability is discussed under the Permit Level Determination – Registration section above.

(b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The proposed revision is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the source is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.

(c) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

(d) 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:

(1) 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.

(2) 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.

(e) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.

(f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.

Welding, Deburring, Metal Presses, Plasma Cutter, and Brazing Stations

(g) 326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
Pursuant to 326 IAC 6.5-1-2(a), particulate matter emissions from the following facilities shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per dry standard cubic foot (dscf)):

(1) Twenty-one (21) welding units, identified as Emission Units W01-W21;
(2) Two (2) deburring operations, identified as Emission Units D01-D02;
(3) One (1) plasma cutter, identified as Emission Unit P01;
(4) Metal presses, including hydraulic presses and mechanical presses, identified as Emissions Units MP02;
(5) Eighteen (18) welding units, identified as Emission Units W22-W39; and
(6) Fourteen (14) non-HAP emitting brazing stations.

These are new requirements for the above emission units because this source has actual emissions of 10 tons per year or more.

(h) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
(1) Pursuant to 326 IAC 6.5-1-1(c), the requirements of 326 IAC 6-3-2 do not apply to emission units W01 through W39 because the units are already subject to 326 IAC 6.5.

(2) Pursuant to 326 IAC 6.5-1-1(c), the requirements of 326 IAC 6-3-2 do not apply to the one (1) plasma cutter, identified as Emission Unit P01, because this unit is already subject to 326 IAC 6.5.

(3) Pursuant to 326 IAC 6.5-1-1(c), the requirements of 326 IAC 6-3-2 do not apply to the two (2) deburring operations, metal presses, including hydraulic presses and mechanical presses, and the fourteen (14) non-HAP emitting brazing stations because these units are already subject to 326 IAC 6.5.

Abrasive Blasting

(i) 326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
Pursuant to 326 IAC 6.5-1-2(a), particulate matter emissions from the following facilities shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per dry standard cubic foot (dscf)):

(1) One (1) Cyclo-Blast blast cabinet, identified as Emissions Unit 07; and
(2) One (1) ICM Superhone 3600 blast cabinet, identified as Emissions Unit 08.

In order to comply with the requirements of 326 IAC 6.5 the cyclones for Emission Unit 07 and Emission Unit 08 shall operate at all times the Cyclo-Blast blast cabinet and the ICM Superhone 3600 blast cabinet are in operation.

These are new requirements for the above emission units.

(j) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6.5-1-1(c), the requirements of 326 IAC 6-3-2 do not apply to the two (2) blast cabinets, identified as Emission Units 07 and 08, because these units are already subject to 326 IAC 6.5.

Note: upon further evaluation, the determination that this requirement applied to Emission Unit 07 has changed because the source is now subject to 326 IAC 6.5.

Space Heaters

(k) 326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
Pursuant to 326 IAC 6.5-1-1(b), particulate limitations shall not be established for combustion units that burn only natural gas at sources or facilities identified in 326 IAC 6.5-2 through 326 IAC 6.5-10, as long as the units continue to burn only natural gas. Therefore, the natural gas-fired combustion units at the source are not subject to the requirements of 326 IAC 6.5.

(l) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
The natural gas-fired combustion units at the source have potential emissions less than five hundred fifty-one thousandths (0.551) pound per hour. In addition, pursuant to 326 IAC 1-2-59(a), liquid and gaseous fuels and combustion air will not be considered as part of the process weight. Therefore, pursuant to 326 IAC 6-3-1(b)(14), the natural gas-fired combustion units at the source are exempt from this rule.

Acid Wash Lines

(m) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The proposed revision is not subject to the requirements of 326 IAC 8-1-6, since the unlimited combined VOC potential emissions from the two (2) acid wash lines for cleaning metal parts, identified as Emissions Unit 06, and the two parts washers at the source are less than twenty-five (25) tons per year.

(n) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Proposed Changes

The following changes listed below are due to the proposed revision. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

1. The source changed the product used in the acid wash lines which increased the PTE pollutant VOC from the acid wash lines. In addition, the source has made other changes at the plants, including the addition of welding emission units, a plasma cutter, and an Air Make-Up Unit. The source has Metal presses, including hydraulic presses and mechanical presses; however since they are not a source of emissions they have been removed from emission unit list. Therefore, the emission unit descriptions have been revised in Sections A and D of the permit to add the new emission units. In addition, the descriptions were revised to clarify if a unit is an affected facility under NESHAP XXXXXX(6X). The requested changes are shown below:

Plant 1 – CTP Sheetmetal, 3555 Madison Avenue

~~(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).~~

(a) Twenty-one (21) welding units, identified as Emission Units W01-W21, constructed in 2007 and approved for modification in 2011, all exhausting to the indoors, consisting of the following units:

(1) Fifteen (15) Tungsten Inert Gas (TIG) welding stations, with a maximum electrode usage capacity of 0.59 pounds of metal per hour (lb/hr);

(2) Three (3) Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 1.5 pounds of metal per hour (lb/hr);

(3) Two (2) portable Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 1.5 pounds of metal per hour (lb/hr); and

(4) One (1) seam welder, with a maximum electrode usage capacity of 0.59 pounds of metal per hour (lb/hr).

Under the NESHAP for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX(6X)) W01-W21 are considered affected facilities.

(b) Two (2) deburring operations, **identified as Emission Units D01-D02, installed in 2007,** 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)~~.~~**, and exhausting to the indoors.**

~~(c) Metal presses, including hydraulic presses and mechanical presses, with a total maximum capacity of 3600 pounds per hour (lb/hr).~~

(~~d~~**c**) One (1) parts washer, identified as Emissions Unit **PW**02, **installed in 2007,** using a maximum capacity of 300 gallons and a maximum cleaner usage rate of 0.025 gallons per hour~~.~~**, and exhausting to the indoors.**

(~~e~~**d**) **Ten (10) n**~~N~~atural gas fired combustion heaters, identified as Emissions Unit 03**, installed in 2002,** with a maximum combined heat input capacity of 5.98 million Btu per hour (mm Btu/hr)~~.~~**, and exhausting to the indoors.** ~~Installed in 2002.~~

(e) One (1) plasma cutter, identified as Emission Unit P01, approved in 2011 for construction, with a maximum metal cutting rate of 56.29 inches per, and exhausting to the indoors.

Plant 2 - CTP, Division of Tube Processing Corporation 3750 South Shelby Street

(a) Two (2) acid wash lines for cleaning metal parts, identified as Emissions Unit 06**, installed in 1976, approved in 2011 for modification, and exhausting to the indoors.** Each wash line contains two (2) acid tanks, two (2) soap tanks, and two (2) rinse tanks containing water. ~~Some wash products contain up to five percent (5%) VOC by weight. Installed in 1976.~~

(b) Two (2) abrasive blast cabinets , **consisting of the following units:** ~~identified as Emissions Unit 07 and Emissions Unit 08. Emissions Unit 07 is a Cyclo-Blast blast cabinet utilizing steel shot as blasting media and Emissions Unit 08 is an ICM Superhone 3600 utilizing glass shot as blasting media. Each emission unit has an integral cyclone to recirculate recovered blasting media and each emission unit is equipped with a baghouse. Installed in 1974.~~

(1) One (1) Cyclo-Blast blast cabinet, identified as Emissions Unit 07, installed in 1974, utilizing steel shot as blasting media, which a maximum capacity of, using an integral cyclone to recirculate recovered blasting media and a baghouse as control, and exhausting to the indoors.

Under the NESHAP for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX(6X)) Emissions Unit 07 is considered an affected facility.

(2) One (1) ICM Superhone 3600 blast cabinet, identified as Emissions Unit 08, installed in 1974, utilizing glass shot as blasting media, which a maximum capacity of, using an integral cyclone to recirculate recovered blasting media and a baghouse as control, and exhausting to the indoors.

~~(c) One (1) coating booth for applying a heat resistant coating by brush. Maximum coating~~ usage ~~is 0.022 gallons per hour. Installed in 1974.~~

~~(d) Nine (9) MIG welding stations and five (5) TIG welding stations. Maximum electrode usage estimated at 105,208 pounds per year. Installed in 1974.~~

(c) Eighteen (18) welding units, identified as Emission Units W22-W39, installed in 1974, and approved for modification in 2011, with a maximum electrode usage estimated at 105,208 pounds per year, all exhausting to the indoors, consisting of the following units:

(1) Nine (9) Tungsten Inert Gas (TIG) welding stations, with a maximum electrode usage capacity of 1.99 pounds of metal per hour (lb/hr); and

(2) Nine (9) Metal Inert Gas (MIG) welding stations, with a maximum electrode usage capacity of 1.99 pounds of metal per hour (lb/hr).

Under the NESHAP for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX(6X)) W22-W39 are considered affected facilities.

(~~e~~**d**) One (1) thirty (30) gallon cold cleaning parts washer**, installed in 1974,** utilizing up to ninety (90) gallons of naptha solvent per year~~.~~**, and exhausting to the indoors.** ~~Installed in 1974.~~

(~~f~~**e**) Ten (10) natural gas fired space heaters**, installed in 1974,** with a combined maximum heat input of 1.35 MMBtu/hr~~.~~**, and exhausting to the indoors.** ~~Installed in 1974.~~

(f) One (1) natural gas fired Air Make-Up Unit, approved in 2011 for construction, with a combined maximum heat input of 0.05 MMBtu/hr, and exhausting to the indoors.

(g) Fourteen (14) non-HAP emitting brazing stations~~.~~**, i**~~I~~nstalled in 1974**, and exhausting to the indoors**.

2. This source has the potential to emit particulate of less than one hundred (100) tons per year and greater than ten (10) tons per year. The actual emissions from the entire source were not calculated. Therefore, it is assumed that the actual emissions will be the same as the potential emissions and the requirements of 326 IAC 6.5-1-2 (Particulate Matter Limitations Except Lake County) would apply and have been included in the permit.

Therefore Section D.1 of the permit has been revised as described below:

Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

~~D.1.1 Particulate Emission Limitations for Manufacturing Processes (326 IAC 6-3-2)~~

~~Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from Emission Unit 07, shall be limited by the following:~~

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

~~When operating at a process weight rate of 0.3 tons per hour, particulate emissions shall not exceed 1.83 pounds per hour.~~

D.1.1 Particulate [326 IAC 6.5]

Pursuant to 326 IAC 6.5-1-2(a), particulate matter emissions from the following facilities shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per dry standard cubic foot (dscf)):

(1) Twenty-one (21) welding units, identified as Emission Units W01-W21;
(2) Two (2) deburring operations, identified as Emission Units D01-D02;
(3) One (1) plasma cutter, identified as Emission Unit P01;
(4) Metal presses, including hydraulic presses and mechanical presses, identified as Emissions Units MP02;
(5) Eighteen (18) welding units, identified as Emission Units W22-W39; and
(6) Fourteen (14) non-HAP emitting brazing stations.
(7) One (1) Cyclo-Blast blast cabinet, identified as Emissions Unit 07; and
(8) One (1) ICM Superhone 3600 blast cabinet, identified as Emissions Unit 08.

...

Compliance Determination Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

~~D.1.4 Particulate~~

~~The cyclones for Emission Unit 07 and Emission Unit 08 shall operate at all times the Cyclo-Blast abrasive blasting cabinet and the ICM Superhone 3000 abrasive blasting cabinet are in operation.~~

D.1.4 Particulate Control

In order to comply with Condition D.1.1, the cyclones for particulate control shall be in operation and control emissions from Emission Unit 07 and Emission Unit 08 at all times the Cyclo-Blast blast cabinet and the ICM Superhone 3600 blast cabinet are in operation.

3. CTP, Division of Tube Processing Corporation actually operates under SIC code 3498 "Fabricated Pipe and Pipe Fittings". In addition, IDEM, OAQ has decided to remove all references to the source mailing address. IDEM, OAQ will continue to maintain records of the mailing address. Therefore, Condition A.1 has been revised as follows:

A.1 General Information

The Registrant owns and operates a stationary fabricated metal product operation source.

Source Address:	Plant 1, 3555 Madison Avenue, Indianapolis, IN 46227; and Plant 2, 3750 South Shelby Street, Indianapolis, IN 46227
~~Mailing Address:~~	~~604 East LeGrande Avenue, Indianapolis, Indiana 46203~~
General Source Phone Number:	(317) 782-9628
SIC Code:	~~3499~~ **3498 (Fabricated Pipe and Pipe Fittings)**

4. IDEM, OAQ has included Section B - Preventive Maintenance Plan in the registration as follows:

B.8 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) The Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit, for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

The Permittee shall implement the PMPs.

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

Conclusion and Recommendation

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 June 8, 2011. Additional information was received on June 14, 2011, June 17, 2011, July 6, 2011 and July 14, 2011.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed Registration Revision No. 097-30616-00593. The staff recommends to the Commissioner that this Registration Revision be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Sarah Conner, Ph. D. at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) (234-6555) or toll free at 1-800-451-6027 extension (4-6555).

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem

Appendix A: Emission Calculations
Summary of Modification

Company Name: **CTP, Division of Tube Processing Corporation**
Address City IN Zip: **Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227**
Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227
Permit Number: **R097-30616-00593**
Reviewer: **Sarah Conner, Ph. D.**
Date: **6/20/2011**

	Uncontrolled PTE (tons/year) of existing units before revision									
Emission Unit	PM (tons/yr)	PM10 (tons/yr)	PM2.5 (tons/yr)	SO_2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	CO2e (tons/yr)	Total HAPs (tons/yr)	Worst Single HAP (tons/yr)
Acid Wash Lines	-	-	-	-	-	2.21	-	-	-	-
Welding Operations	0.70	0.70	0.70	-	-	-	-	-	0.06	0.05 (Mn)
Natural Gas Combustion	0.06	0.24	0.24	0.02	3.15	0.17	2.64	3800.09	0.06	0.06 (Hexane)
Total PTE before Revision	**0.76**	**0.94**	**0.94**	**0.02**	**3.15**	**2.38**	**2.64**	**3800.09**	**0.12**	0.06 (Hexane)

	Uncontrolled PTE (tons/year) of existing units after Revision									
Emission Unit	PM (tons/yr)	PM10 (tons/yr)	PM2.5 (tons/yr)	SO_2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	CO2e (tons/yr)	Total HAPs (tons/yr)	Worst Single HAP (tons/yr)
Acid Wash Lines	-	-	-	-	-	12.74	-	-	-	-
Welding Operations	1.31	1.31	1.31	-	-	-	-	-	1.69	0.83 (Cr)
Natural Gas Combustion	0.06	0.24	0.24	0.02	3.17	0.17	2.66	3826.01	0.06	0.06 (Hexane)
Total PTE after Revision	**1.37**	**1.55**	**1.55**	**0.02**	**3.17**	**12.92**	**2.66**	**3826.01**	**1.75**	0.06 (Hexane)
Total PTE before Revision	**0.76**	**0.94**	**0.94**	**0.02**	**3.15**	**2.38**	**2.64**	**3800.09**	**0.12**	0.06 (Hexane)
Change in PTE due to Revision (tons/yr)	**0.61**	**0.61**	**0.61**	**0.00**	**0.02**	**10.54**	**0.02**	**25.92**	**1.63**	**0.00**

Note - = negligible and PTE = Potential to Emit

Appendix A: Emissions Calculations
Source-wide Summary

Company Name: CTP, Division of Tube Processing Corporation
Address City IN Zip: Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227
Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227
Permit Number: R097-30616-00593
Reviewer: Sarah Conner, Ph. D.
Date: 6/20/2011

Uncontrolled PTE (tons/year) of existing units after Revision										
Emission Unit	**PM (tons/yr)**	**PM10 (tons/yr)**	**PM2.5 (tons/yr)**	**SO2 (tons/yr)**	**NOx (tons/yr)**	**VOC (tons/yr)**	**CO (tons/yr)**	**CO2e (tons/yr)**	**Total HAP (tons/yr)**	**Single HAP (tons/yr)**
Acid Wash Lines	-	-	-	-	-	12.74	-	-	-	-
Welding Operations	1.31	1.31	1.31	-	-	-	-	-	1.69	0.83 (Cr)
Natural Gas Combustion	0.06	0.24	0.24	0.02	3.17	0.17	2.66	3826.01	0.06	0.06 (Hexane)
Blasting Operations	6.76	6.03	6.03	-	-	-	-	-	-	-
Parts Washers	-	-	-	-	-	1.30	-	-	-	-
Deburring, metal presses and brazing	2.92	2.92	2.92	-	-	-	-	-	-	-
Paved and Unpaved Roads	4.56	1.16	0.12	-	-	-	-	-	-	-
Total	**15.61**	**11.66**	**10.62**	**0.02**	**3.17**	**14.22**	**2.66**	**3826.01**	**1.75**	**0.83 (Cr)**

Note - = negligible and PTE = Potential to Emit

Appendix A: Emissions Calculations
Wash Lines in Plant 2 After Revision

Company Name: **CTP, Division of Tube Processing Corporation**
Address City IN Zip: **Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227**
Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227
Permit Number: **R097-30616-00593**
Reviewer: **Sarah Conner, Ph. D.**
Date: **6/20/2011**

Acid Wash Lines
PTE Calculations

VOC PTE

Product	Manufacturer	Density (lbs/gal)	VOC Content (wt%)	Max. Usage (gal/hr)	VOC PTE (lbs/hr)	VOC PTE (tpy)
CT-5A	Chemtool, Inc.	6.94	33%	1.29	2.91	12.74
TOTAL						**12.74**

Note PTE = Potential to Emit
Methodology
Density (lbs/gal) = as taken from MSDS
[Pollutant] Content (wt%) = as taken from MSDS
Max. Usage (gal/hr) = 3,960 product usage (2010) / 4,590 actual hours of operation per year x 1.5 safety factor
Based on performance testing, CTP anticipates same usage of new product (CT-54) as with old product
VOC PTE (lbs/hr) = Max. Usage (gal/hr) x Density (lbs/gal) x VOC Content (wt%)
VOC PTE (tpy) = VOC PTE (lbs/hr) x 8,760 hours per year x 2,000 lbs per ton

Appendix A: Emissions Calculations
Wash Lines in Plant 2 Before Revision

Company Name: **CTP, Division of Tube Processing Corporation**
Address City IN Zip: **Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227**
Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227
Permit Number: **R097-30616-00593**
Reviewer: **Sarah Conner, Ph. D.**
Date: **6/20/2011**

Description of Wash Lines:

CTP has 2 acid wash lines for cleaning metal parts. Each wash line contains 2 acid tanks, 2 soap tanks, and 2 rinse tanks containing water. These lines use the following products in significant quantity: Scumbugs SAA1.1, Acid Cleaner 5557, Anti Rust 6514A, and Anti Rust 8133CH1.

VOC Containing Product Information:

Product Name	Anti Rust 8133CH1
Product Mfg	Mid-State Chemical & Supply Corp.
Specific Gravity (1)	0.80
Product Density [lb/gal] (2)	6.67
Est. VOC Content [wt. %] (1)	5%
Actual 2005 Product Usage [gal/yr]	4,620
Hours of Operation [hr/yr] (3)	4,590
Avg. Product Usage [gal/hr] (4)	1.0
Max. Product Usage [gal/hr] (5)	1.5
Max. Product Usage [lb/hr] (6)	10.1

PTE:

PTE VOC [lb/hr] (7)	0.50
PTE VOC [lb/day] (8)	12.1
PTE VOC [tpy] (9)	2.21

Note PTE = Potential to Emit

Additional Information:

(1) This data was obtained from the manufacturer's MSDS for this product. Product contains 1 to 5% 2-Butoxyethanol. Used upper end of range for the PTE calculation.

(2) Coating Density [lb/gal] = Specific Gravity x 8.34 lb/gal
(3) Hours of Operation [hr/yr] = 18 hr/day x 5 day/wk x 51 wk/yr
(4) Avg. Product Usage [gal/hr] = Actual 2005 Product Usage [gal/yr] / Hours of Operation [hr/yr]
(5) Max. Product Usage [gal/hr] = Avg. Product Usage [gal/hr] x 1.5 Safety Factor
(6) Max. Product Usage [lb/hr] = Max. Product Usage [gal/hr] x Product Density [lb/gal]
(7) PTE VOC [lb/hr] = Max. Product Usage [lb/hr] x Est. VOC Content [wt. %]
(8) PTE VOC [lb/day] = PTE VOC [lb/hr] x 24 hr/day
(9) PTE VOC [tpy] = PTE VOC [lb/hr] x 8,760 hr/yr / 2,000 lb/ton

Appendix A: Emissions Calculations
Welding Operations in Plant 1 After Revision

Company Name: **CTP, Division of Tube Processing Corporation**
Address City IN Zip: **Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227**
Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227
Permit Number: **R097-30616-00593**
Reviewer: **Sarah Conner, Ph. D.**
Date: **6/20/2011**

Welding Operations
PTE Calculations

Plant 1

Welding Type	Station #	Max. Electrode Consumption (lbs/hr)	PM/PM_{10} Emission Factor	Manganese Emission Factor	PM/PM10 PTE (lbs/hr)	Manganese PTE (lbs/hr)	PM/PM10 PTE (tpy)	Manganese PTE (tpy)
MIG	5	1.5	0.0055	0.0005	0.04	0.004	0.18	0.02
TIG + Seam Welder	16	0.59	0.0055	0.0005	0.05	0.005	0.23	0.02
Total							**0.408**	**0.037**

Flame Cutting	Station #	Max. Metal Cutting Rate (in./minute)	PM/PM_{10} Emission Factor	PM/PM10 PTE (lbs/hr)	PM/PM 10 PTE (tpy)
Plasma	1	56.29	0.0039	0.01	**0.06**

Note PTE = Potential to Emit

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.

Appendix A: Emissions Calculations
Welding Operations in Plant 2 After Revision

Company Name: CTP, Division of Tube Processing Corporation
Address City IN Zip: Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227
Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227
Permit Number: R097-30616-00593
Reviewer: Sarah Conner, Ph. D.
Date: 6/20/2011

Particulate Matter (PM) and Hazardous Air Pollutants (HAPs)

PROCESS	Electrode Type	Max. electrode consumption per station (lbs/hr)	Max. electrode consumption per station (lbs/day)	Number of Stations	Max. electrode consumption (lbs/year)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
						PM = PM10	Cr	Mn	Ni	PM = PM10	Cr	Mn	Ni	
Gas Metal Arc Welding	ER70S-3	1.99	47.76	18	313,783	5.2E-03	1.0E-05	3.2E-03	1.0E-05	1.9E-01	3.6E-04	1.1E-01	3.6E-04	1.1E-01
Gas Metal Arc Welding	ER308LSi	1.99	47.76	18	313,783	5.4E-03	5.2E-03	3.5E-03	1.8E-03	1.9E-01	1.9E-01	1.2E-01	6.6E-02	3.8E-01
Gas Metal Arc Welding	ER309LSi	1.99	47.76	18	313,783	N/A	N/A	N/A	N/A					
Gas Metal Arc Welding	ER316LSi	1.99	47.76	18	313,783	3.2E-03	5.3E-03	2.5E-03	2.3E-03	1.1E-01	1.9E-01	8.8E-02	8.1E-02	3.6E-01
Gas Metal Arc Welding	ER4043/ ER5356	1.99	47.76	18	313,783	N/A	N/A	N/A	N/A					

Abbreviations
Cr = Chromium
Ni = Nickel
Mn = Manganese

Total PTE lbs/hr	0.19	0.19	0.12	0.08	0.38
Total PTE lbs/day	4.64	4.5E+00	2.97	1.94	9.06
Total PTE tons/year	0.85	0.83	0.54	0.35	1.65

Methodology:

*Emission Factors are default values for Gas Metal Arc Welding (GMAW) (SCC 3-09-052) Electrode Type E308, E70S, ER316, AP-42. There were no available Emission Factors for ER309LSi or ER4043/ER5356 in AP-42.

In order to determine the maximum PTE from the GMAW welding, the Max PTE was calcualted using the available emission factors for E308, E70S, ER316 for 18 stations and 1.99 lbs/hr of electrode per station.

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.

Appendix A: Emissions Calculations

Welding in Plant 1 Before Revision

Company Name: **CTP, Division of Tube Processing Corporation**
Address City IN Zip: **Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227**
Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227
Permit Number: **R097-30616-00593**
Reviewer: **Sarah Conner, Ph. D.**
Date: **6/20/2011**

PROCESS WELDING	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode) PM = PM10	Mn	Ni	Cr	PTE (lbs/hr) PM = PM10	Mn	Ni	Cr	HAPS (lbs/hr)
Submerged Arc	0	0		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	0		0.0211	0.0009			0.000	0.000	0.000	0	0.000
Tungsten Inert Gas (TIG)(carbon steel)	15	0.59		0.0055	0.0005			0.049	0.004	0.000	0	0.004
Oxyacetylene(carbon steel)	0	0		0.0055	0.0005			0.000	0.000	0.000	0	0.000
Total Electrode Consumption (lbs/day)		50.16										
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)** PM = PM10	Mn	Ni	Cr	PTE (lbs/hr) PM = PM10	Mn	Ni	Cr	HAPS (lbs/hr)
Oxyacetylene	0	0	0	0.1622	0.0005	0.0001	0.0003	0.000	0.000	0.000	0.000	0.000
Oxymethane	0			0.0815	0.0002		0.0002	0.000	0.000	0.000	0.000	0.000
Plasma**	0	0	0	0.0039				0.000	0.000	0.000	0.000	0.000
EMISSION TOTALS												
PTE lbs/hr								0.07	0.01			0.01
PTE lbs/day								1.76	0.16			0.16
PTE tons/year								**0.32**	**0.03**			**0.03**

Note PTE = Potential to Emit

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 PTE.

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 PTE, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)

Cutting PTE, 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 PTE, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

PTE, lbs/day = PTE, lbs/hr x 24 hrs/day

PTE, tons/yr = PTE, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Appendix A: Emissions Calculations

Welding in Plant 2 Before Revision

Company Name: **CTP, Division of Tube Processing Corporation**
Address City IN Zip: **Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227**
Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227
Permit Number: **R097-30616-00593**
Reviewer: **Sarah Conner, Ph. D.**
Date: **6/20/2011**

Welding Operation Description:

CTP (Plant 2) has fourteen (14) welding stations, consisting of nine (9) MIG (GMAW) stations and five (5) TIG (GTAW) stations installed in the mid-1990s. All welding stations are controlled with dust collectors exhausting inside the building.

PTE calculations:

Welding Type	Electrode Type	2005 Electrode Usage [lb/yr]	Maximum Electrode Usage [lb/yr] (1)	Maximum Electrode Usage [lb/hr] (2)	Percent of Electrode Converted to Fume [%] (3)	Percent of Manganese in Fume [%] (3)	Percent of Chromium in Fume [%] (3)	Percent of Nickel in Fume [%] (3)	PTE PM/PM10 [tpy] (4)	PTE Manganese [tpy] (5)	PTE Chromium [tpy] (5)	PTE Nickel [tpy] (5)	Combined HAP PTE (tpy)
GMAW	ER70S-3	30,614	92,795	10.59	0.6%	7.7%	N/A	N/A	2.78E-01	2.14E-02	N/A	N/A	
GMAW	308L	1,300	3,940	0.45	0.5%	8.7%	12.5%	5.1%	9.85E-03	8.57E-04	1.23E-03	5.02E-04	
GMAW	309L	1,590	4,820	0.55	0.5%	7.8%	13.1%	6.0%	1.20E-02	9.40E-04	1.58E-03	7.23E-04	
GMAW	316L	145	440	0.05	0.4%	11.3%	11.9%	5.0%	8.79E-04	9.93E-05	1.05E-04	4.40E-05	
GMAW	ER4043 / ER535(	1,060	3,213	0.37	5.1%	0.01%	N/A	N/A	8.19E-02	8.19E-06	N/A	N/A	
		34,709	105,208	12				**TOTAL**	**0.383**	**0.023**	**0.003**	**0.001**	**0.028**

Note PTE = Potential to Emit

Additional Information:

(1) Maximum Electrode Usage [lb/yr] = 2005 Electrode Usage x 8,760 hr/yr / (17 hr/day x 5 day/wk x 51 wk/yr) x 1.5 Safety Factor
(2) Maxium Electrode Usage [lb/hr] = Maximum Electrode Usage [lb/yr] / 8,760 hr/yr
(3) Percent of electrode converted to fume and percent of manganese, chromium, and nickel in fume were obtained from the "Guide for Estimating Welding Emissions for EPA and Ventilation Permit Reporting" published by the American Welding Society. Refer to Attachment 3.
(4) PTE PM/PM10 [tpy] = Maximum Electrode Usage [lb/hr] x Percent of Electrode Converted to Fume [%] x 8,760 hr/yr / 2,000 lb/ton
(5) PTE Mn, Cr & Ni [tpy] = PTE PM/PM10 [tpy] x Percent of Mn, Cr & Ni in Fume [%]

Electrode usage per day = Electrode Usage (lb/yr) / 365 days = 95 lbs/day

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

Company Name: **CTP, Division of Tube Processing Corporation**
Address City IN Zip: **Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227**
Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227
Permit Number: **R097-30616-00593**
Reviewer: **Sarah Conner, Ph. D.**
Date: **6/20/2011**

Emission Unit Description	Total Heat Input Capacity (MMBtu/hr)
Plant 1 (Madison) - Heaters (10)	5.98
Plant 2 (Shelby) - Heaters (10)	1.35
Plant 2 (Shelby) - Air Make-Up Unit	0.05
Total	7.38

Heat Input Capacity MMBtu/hr		Potential Throughput MMCF/yr
7.33	before revision	63.0
7.38	after revision	63.4

	Pollutant						
	PM*	PM10*	PM2.5	SO_2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Before Revision PTE in tons/yr	0.060	0.239	0.239	0.019	3.148	0.173	2.644
After Revision PTE in tons/yr	0.060	0.241	0.241	0.019	3.169	0.174	2.662

*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
Note PTE = Potential to Emit

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,020,000 Cubic Feet of Gas
NOx and CO Emission Factors are from AP 42, Chapter 1.4, Table 1.4-1
PM, SO_2, CO_2, N_2O and Methane Emission Factors are from AP 42, Chapter 1.4, Table 1.4-2
PTE (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/tor

See next page for HAPs PTE calculations.

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

Company Name: CTP, Division of Tube Processing Corporation
Address City IN Zip: Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227
Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227
Permit Number: R097-30616-00593
Reviewer: Sarah Conner, Ph. D.
Date: 6/20/2011

	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
Before Revision PTE in tons/yr	6.61E-05	3.78E-05	0.0024	0.0567	1.07E-04
After Revision PTE in tons/yr	6.66E-05	3.80E-05	0.0024	0.0570	1.08E-04

	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	Total
Before Revision PTE in tons/yr	1.57E-05	3.46E-05	4.41E-05	1.20E-05	6.61E-05	0.059
After Revision PTE in tons/yr	1.58E-05	3.49E-05	4.44E-05	1.20E-05	6.66E-05	0.060

Note PTE = Potential to Emit
Methodology is the same as previous page.
Organic HAPs Emission Factors are from AP 42, Chapter 1.4, Table 1.4-3
Metal HAPs Emission Factors are from AP 42, Chapter 1.4, Table 1.4-4
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4, Tables 1.4-3 and 1.4-4
See Next Page for Greenhouse Gas calculations.

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

Company Name: **CTP, Division of Tube Processing Corporation**
Address City IN Zip: **Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227**
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		Greenhouse Gas	
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Before Revision Potential Emission in tons/yr	3777.1	0.1	0.1
After Revision Potential Emission in tons/yr	3802.9	0.1	0.1
Before Revision Summed Potential Emissions in tons/yr	3777.25		
After Revision Summed Potential Emissions in tons/yr	3803.01		
Before Revision CO2e Total in tons/yr	3800.09		
After Revision CO2e Total in tons/yr	3826.01		

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emissions Calculations
Blasting Operations

Company Name: **CTP, Division of Tube Processing Corporation**
Address City IN Zip: **Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227**
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Permit Number: **R097-30616-00593**
Reviewer: **Sarah Conner, Ph. D.**
Date: **6/20/2011**

Blasting Operations
PTE Calculations

Cyclo-Blast using Steel Shot

Sand Flow Rate (lb/hr)	Actual Nozzle Internal Diameter (in)	Nozzle Internal Diameter (in)	Density of Abrasive (lb/ft^3)	Density of Sand (lb/ft^3)	Abrasive Flow Rate (lb/hr)
600	0.375	0.375	487	99	2951.52

Abrasive Flow Rate (lb/hr)	Emission Factor (lb PM/lb Abrasive)	Integral Cyclone Control Efficiency	PM PTE after integral (lbs/hr)	PM PTE after integral (tpy)	*Uncontrolled PM PTE (tpy)	PM_{10} Emission Factor (lb PM_{10}/lb PM)	PM10 PTE after integral (lbs/hr)	PM10 PTE after integral (tpy)	*Uncontrolled PM10 PTE (tpy)
2951.52	0.004	90%	1.18	5.17	51.71	0.86	1.02	4.45	44.47

Baghouse Efficiency	Controlled PM PTE (lbs/hr)	Controlled PM PTE (tpy)	Controlled PM10 PTE (lbs/hr)	Controlled PM10 PTE (tpy)
99%	0.01	0.05	0.01	0.04

Note PTE = Potential to Emit

* Since the control device has been determined to be integral to the process, the controlled PTE is used for determining the Part 70 permitting level. However, the uncontrolled PTE is necessary to calculate because integral to the process is not used when determining the PTE to show minor source status under 326 IAC 2-2 (PSD).

Methodology
Emission Factors and Supplied Variables tanke from "Stappa-Alapco, Section 3: Abrasive Blasting'
Actual Nozzle Internal Diameter (in) = taken from unit specifications
Abrasive Flow Rate (lb/hr) = Sand Flow Rate (lb/hr) x (Actual Nozzle Internal Diameter [in] / Nozzle Internal Diameter [in]) x (Density of Abrasive [lb/f^3] / Density of Sand [lb/ft^3])
PM PTE (lbs/hr) = Abrasive Flow Rate (lb/hr) x Emission Factor (lb PM/lb Abrasive) x (1 - Integral Cyclone Control Efficiency)
PM PTE (tpy) = PM PTE x 8,760 hours per year / 2,000 lbs per ton
PM10 PTE (lbs/hr) = Abrasive Flow Rate (lb/hr) x Emission Factor (lb PM/lb Abrasive) x PM10 Emission Factor (lb PM10/lb PM) x (1 - Integral Cyclone Efficiency)
PM10 PTE (tpy) = PM10 PTE (lbs/hr) x 8,760 hours per year / 2,000 lbs per ton

Appendix A: Emissions Calculations
Blasting Operations

Company Name: **CTP, Division of Tube Processing Corporation**
Address City IN Zip: **Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227**
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Reviewer: **Sarah Conner, Ph. D.**
Date: **6/20/2011**

Blasting Operations
PTE Calculations

ICM Superhone using Glass Shot

Sand Flow Rate (lb/hr)	Actual Nozzle Internal Diameter (in)	Nozzle Internal Diameter (in)	Density of Abrasive (lb/ft^3)	Density of Sand (lb/ft^3)	Abrasive Flow Rate (lb/hr)
221	0.25	0.25	162	99	361.64

Abrasive Flow Rate (lb/hr)	Emission Factor (lb PM/lb Abrasive)	Integral Cyclone Control Efficiency	PM PTE after integral (lbs/hr)	PM PTE after integral (tpy)	*Uncontrolled PM PTE (tpy)	PM_{10} Emission Factor (lb PM_{10}/lb PM)	PM10 PTE after integral (lbs/hr)	PM10 PTE after integral (tpy)	*Uncontrolled PM10 PTE (tpy)
361.64	0.01	90%	0.36	1.58	15.84	1	0.36	1.58	15.84

Baghouse Efficiency	Controlled PM PTE (lbs/hr)	Controlled PM PTE (tpy)	Controlled PM10 PTE (lbs/hr)	Controlled PM10 PTE (tpy)
99%	0.00	0.02	0.00	0.02

Note PTE = Potential to Emit

* Since the control device has been determined to be integral to the process, the controlled PTE is used for determining the Part 70 permitting level. However, the uncontrolled PTE is necessary to calculate because integral to the process is not used when determining the PTE to show minor source status under 326 IAC 2-2 (PSD).

Methodology
Emission Factors and Supplied Variables tanke from "Stappa-Alapco, Section 3: Abrasive Blasting"
Actual Nozzle Internal Diameter (in) = taken from unit specifications
Abrasive Flow Rate (lb/hr) = Sand Flow Rate (lb/hr) x (Actual Nozzle Internal Diameter [in] / Nozzle Internal Diameter [in]) x (Density of Abrasive [lb/f^3] / Density of Sand [lb/ft^3])
PM PTE (lbs/hr) = Abrasive Flow Rate (lb/hr) x Emission Factor (lb PM/lb Abrasive) x (1 - Integral Cyclone Control Efficiency)
PM PTE (tpy) = PM PTE x 8,760 hours per year / 2,000 lbs per ton
PM10 PTE (lbs/hr) = Abrasive Flow Rate (lb/hr) x Emission Factor (lb PM/lb Abrasive) x PM10 Emission Factor (lb PM10/lb PM) x (1 - Integral Cyclone Efficiency)
PM10 PTE (tpy) = PM10 PTE (lbs/hr) x 8,760 hours per year / 2,000 lbs per ton

Appendix A: Emissions Calculations
Parts Washers

Company Name: **CTP, Division of Tube Processing Corporation**
Address City IN Zip: **Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227**
Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227
Permit Number: **R097-30616-00593**
Reviewer: **Sarah Conner, Ph. D.**
Date: **6/20/2011**

Parts Washer
PTE Calculations

Plant 1

Product	Density (lb/gal)	VOC Content (wt%)	Max. Usage (gal/hr)	VOC PTE (lbs/hr)	PTE (tpy)
Cleaner	9.16	10%	0.25	0.229	1.00

Plant 2

Product	Density (lb/gal)	VOC Content (wt%)	Max. Usage (gal/hr)	VOC PTE (lbs/hr)	PTE (tpy)
Naptha Solvent	6.75	100%	0.01	0.07	0.30

Note PTE = Potential to Emit
Methodology
Density (lbs/gal) = as taken from MSDS
VOC Content (wt%) = as taken from MSDS
Max. Usage (gal/hr) = Annual Solvent Usage as supplied by client / 8,760 hours per year
VOC PTE (lbs/hr) = Density (lb/gal) x VOC Content (wt%) x Max. Usage (gal/hr)
PTE (tpy) = VOC PTE (lbs/hr) x 8,760 hours per year / 2,000 lbs per ton

Appendix A: Emissions Calculations
Deburring, metal presses and brazing

Company Name: **CTP, Division of Tube Processing Corporation**
Address City IN Zip: **Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227**
Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227
Permit Number: **R097-30616-00593**
Reviewer: **Sarah Conner, Ph. D.**
Date: **6/20/2011**

Deburring - Trivial Activity pursuant to 326 IAC 2-7-1(41)(C)(ii)(FF) = Uncontrolled PM10 < 1 pound per day

Potential to Emit (PTE):	PM10	
1 pound per day x 365 days/year x ton/2000 pounds x 2 stations =	**0.37**	**tons /year**
1 pound per day x day/24 hours x 2 stations =	**0.08**	**pounds/hr**

Brazing stations - Trivial Activity pursuant to 326 IAC 2-7-1(41)(C)(ii)(FF) = Uncontrolled PM10 < 1 pound per day

Potential to Emit (PTE):	PM10	
1 pound per day x 365 days/year x ton/2000 pounds x 14 stations =	**2.56**	**tons /year**
1 pound per day x day/24 hours x 14 stations =	**0.58**	**pounds/hr**

Assume that PM10 =PM

Note: The metal presses, including hydraulic presses and mechanical presses, identified as Emissions Units MP02, have negligible particulate emissions. They are only used to bend the metal.

Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: CTP, Division of Tube Processing Corporation
Address City IN Zip: Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227
Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227
Permit Number: R097-30616-00593
Reviewer: Sarah Conner, Ph. D.
Date: 6/20/2011

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (12/2003).

[1]Vehicle Informtation (conservative assumptions by IDEM)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Passenger Vehicles entering plants	50.0	1.0	50.0	2.5	125.0	1000	0.189	9.5	3456.4
PassengerVehicle leaving plants	50.0	1.0	50.0	2.5	125.0	1000	0.189	9.5	3456.4
Truck entering plants	10.0	1.0	10.0	13.0	130.0	1000	0.189	1.9	691.3
Truck leaving plants	10.0	1.0	10.0	22.0	220.0	1000	0.189	1.9	691.3
		Total	**120.0**		**600.0**			**22.7**	**8295.5**

Note 1: The source did not provide vehicle information for the registration. Therefore, IDEM made conservative assumptions for passengar vehicles and trucks to estimate the PTE particulate from roads.

Average Vehicle Weight Per Trip = 5.0 tons/trip
Average Miles Per Trip = 0.19 miles/trip

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1.3 (01/2011)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	5.0	5.0	5.0	tons = average vehicle weight (provided by source)
sL =	0.6	0.6	0.6	g/m^2 = Ubitiguous Baseline Silt Loading Values of paved roads (Table 13.2.1-2)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)]
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]
where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.04	0.01	0.00	lb/mile
Mitigated Emission Factor, Eext =	0.03	0.01	0.00	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Passenger Vehicles entering plants	0.06	0.01	0.00	0.06	0.01	0.00
PassengerVehicle leaving plants	0.06	0.01	0.00	0.06	0.01	0.00
Truck entering plants	0.01	0.00	0.00	0.01	0.00	0.00
Truck leaving plants	0.01	0.00	0.00	0.01	0.00	0.00
	0.15	**0.03**	**0.01**	**0.14**	**0.03**	**0.01**

Methodology
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day]
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs
Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] * [1 - Dust Control Efficiency

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit

Appendix A: Emission Calculations
Fugitive Dust Emissions - Unpaved Roads

Company Name: CTP, Division of Tube Processing Corporation
Address City IN Zip: Plant 1: 3555 Madison Avenue, Indianapolis, Indiana 46227
Plant 2: 3750 South Shelby Street, Indianapolis, Indiana 46227
Permit Number: R097-30616-00593
Reviewer: Sarah Conner, Ph. D.
Date: 6/20/2011

Unpaved Roads at Industrial Site
The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

[1]Vehicle Informtation (conservative assumptions by IDEM)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Passenger Vehicles entering plants	25.00	1.0	25.0	2.5	62.5	1000	0.189	4.7	1728.2
PassengerVehicle leaving plants	25.00	1.0	25.0	2.5	62.5	1000	0.189	4.7	1728.2
Truck entering plants	5.00	1.0	5.0	13.0	65.0	1000	0.189	0.9	345.6
Truck leaving plants	5.00	1.0	5.0	22.0	110.0	1000	0.189	0.9	345.6
		Total	**60.0**		**300.0**			**11.4**	**4147.7**

Note 1: The source did not provide vehicle information for the registration. Therefore, IDEM made conservative assumptions for passengar vehicles and trucks to estimate the PTE particulate from roads.

Average Vehicle Weight Per Trip = 5.0 tons/trip
Average Miles Per Trip = 0.19 miles/trip

Unmitigated Emission Factor, Ef = k*[(s/12)^a]*[(W/3)^b] (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Plant Road)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2)
W =	5.0	5.0	5.0	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [(365 - P)/365]
Mitigated Emission Factor, Eext = E * [(365 - P)/365]
where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	3.25	0.83	0.08	lb/mile
Mitigated Emission Factor, Eext =	2.13	0.54	0.05	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Passenger Vehicles entering plants	2.81	0.72	0.07	1.84	0.47	0.05
PassengerVehicle leaving plants	2.81	0.72	0.07	1.84	0.47	0.05
Truck entering plants	0.56	0.14	0.01	0.37	0.09	0.01
Truck leaving plants	0.56	0.14	0.01	0.37	0.09	0.01
	6.73	**1.72**	**0.17**	**4.43**	**1.13**	**0.11**

Methodology
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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TO: Dan Seybert
CTP, Division of Tube Processing Corp.
604 E LeGrande Ave
Indianapolis, IN 46203-3907

DATE: July 18, 2011

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Registration Revision
097 - 30616 - 00593

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Adam Estes Cornerstone Environmental, Health & Safety, Inc.
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Mail Code 61-53

IDEM Staff	LPOGOST 7/18/2011 CTP, Division of Tube Processing Corporation 097 - 30616 - 00593 final)			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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2		Marion County Health Department 3838 N, Rural St Indianapolis IN 46205-2930 *(Health Department)*									
3		Mrs. Sandra Lee Watson 7834 E 100 S Marion IN 46953 *(Affected Party)*									
4		Indianapolis City Council and Mayors Office 200 East Washington Street, Room E Indianapolis IN 46204 *(Local Official)*									
5		Marion County Commissioners 200 E. Washington St. City County Bldg., Suite 801 Indianapolis IN 46204 *(Local Official)*									
6		Matt Mosier Office of Sustainability 2700 South Belmont Ave. Administration Bldg. Indianapolis IN 46221 *(Local Official)*									
7		Adam Estes Cornerstone Environmental, Health & Safety, Inc. 880 Lennox Court Zionsville IN 46077 *(Consultant)*									
8		Mark Zeltwanger 26545 CR 52 Nappanee IN 46550 *(Affected Party)*									
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