



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: June 17, 2010

RE: T & S Equipment Company / 151-29091-00053

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

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER-AM.dot12/3/07



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June 17, 2010

Mr. Vincent Torres
T & S Equipment Company
P. O. Box 496
Angola, IN 46703

Re: Exempt Construction and Operation Status,
151-29091-00053

Dear Mr. Torres:

The application from T & S Equipment Company, received on March 18, 2010, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following stationary fabricated metal parts - machine, weld, paint and assembly operation located at 900 Growth Parkway, Angola, Indiana is classified as exempt from air pollution permit requirements:

- (a) One (1) spray booth, identified as V1, using a HVLP spray gun, with a capacity of metal 20 units per hour (maximum of 98 lbs/hr), controlled by dry filters and exhausting to stack V1.
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour:
 - (1) Two (2) natural gas-fired forced air furnaces, identified as F-1 and F-2, with a maximum heat capacity of 2.2 MMBtu/hr; and
 - (2) One (1) natural gas-fired heater, identified as TS-1, with a maximum heat input capacity of 0.022 MMBtu/hr; and
 - (3) One (1) natural gas-fired heater, identified as TS-2, with a maximum heat input capacity of 0.40 MMBtu/hr; and
 - (4) Two (2) natural gas-fired tribunes, identified as TS-3, with a maximum heat input capacity of 0.95 MMBtu/hr, each.
- (c) Miscellaneous welding and machining operations consisting of:
 - (1) Nineteen (19) steel MIG welder with a maximum consumption of 3.5 lbs/hr of wire each; and
 - (2) Five (5) aluminum MIG welders with a maximum consumption of 2.0 lbs/hr of wire each.
- (d) Two (2) Plasma cutters cutting 0.75 inch steel at a maximum rate of 14.00 inches per hour.

The following conditions shall be applicable:

1. 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
2. 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.
3. Pursuant to 326 IAC 6-3-2(d), particulate from the spray booth V1 will be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.
 - (a) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:
 - (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
 - (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
 - (b) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

This Exemption supersedes Exemption No.: 151-10939-00053, issued July 27, 1999. A copy of the Exemption is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. 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.idem.in.gov

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. If you have any questions on this matter, please contact Bruce Farrar, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, at 317-234-5401 or at 1-800-451-6027 (ext 45401).

Sincerely,



Iryn Calitang, Section Chief
Permits Branch
Office of Air Quality

IC/bf

cc: File - Steuben County
Steuben County Health Department
Compliance and Enforcement Branch
Billing, Licensing and Training Section

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Description and Location
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Source Name:	T & S Equipment Company
Source Location:	900 Growth Parkway, Angola, IN 46703
County:	Steuben
SIC Code:	3499, 3999
Registration (or Exemption) No.:	151-29091-00053
Permit Reviewer:	Bruce Farrar

On March 18, 2010, the Office of Air Quality (OAQ) received an application from T & S Equipment Company related to the construction and operation of new emission units and the continued operation of an existing plant.

Source Definition

Vestil Manufacturing Corporation (151-00035) is owned by Ralph Trine, who formerly held an ownership interest in T & S Equipment Company (151-00053). The two plants are approximately one mile apart. IDEM, OAQ has examined whether these two plants are part of the same major source. The term "major source" is defined at 326 IAC 2-7-1(22). In order for the two plants to be considered one major source they must meet all three of the following criteria:

- (1) the plants must be under common ownership or common control;
- (2) the plants must have the same two-digit Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other; and,
- (3) the plants must be located on contiguous or adjacent properties.

Ralph Trine is the sole owner of Vestil. T & S is owned by several shareholders, many of whom are related to Mr. Trine. Since Mr. Trine does not have an ownership interest in T & S, there is no common ownership. IDEM's nonrule policy document, NRPD 005, sets out two tests to determine if common control exists in situations where there is no common ownership:

1. *The two-pronged test*
Determine if one source is an auxiliary activity
 - a. directly serving the purpose of another primary activity and,
 - b. the owner or operator of the primary activity has a major role in the day-to-day operations of the auxiliary activity.
2. *But/for test*
The auxiliary activity would not exist absent the needs of the primary activity. If all or a majority of the output of the auxiliary activity is consumed by the primary activity the but/for test is satisfied.

Neither plant serves the purpose of the other plant. Neither plant has any role in the day-to-day operations of the other. None of the output of either plant is consumed by the other. If either plant discontinued operations, the other plant's operations would not be affected. IDEM, OAQ has determined that neither of

the common control tests is met. Since there is no common ownership or common control, the first element of the definition is not met.

Vestil and T & S have the same two-digit SIC code 34, for the major group Fabricated Metal Products, Except Machinery and Transportation Equipment.

A plant is considered a support facility if at least 50% of its output is dedicated to the other plant. Neither plant sends any output to the other, so there is no support relationship. Since the two plants have the same two-digit SIC Code meet the second element of the definition.

The two plants are located approximately one mile apart. There are no physical connections between the two plants. The plants do not share employees. None of the work at either plant supports the other plant. Therefore, the two plants are not adjacent. The two plants do not meet all three of the elements of the major source definition. Therefore IDEM, OAQ finds that the two plants are not part of the same major source. This source determination is effective from the date of issuance of this Exemption 151-29091-00053.

Existing Approvals

The source has been operating under Exemption No. 151-10939-00053, issued on July 27, 1999.

County Attainment Status

The source is located in Steuben County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, 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	Not designated.

¹Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.
Unclassifiable or attainment effective 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. Steuben 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) PM2.5

Steuben County has been classified as attainment for PM2.5. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, and the effective date of these rules was July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.

- (c) Other Criteria Pollutants
Steuben County has been classified as attainment or unclassifiable in Indiana for all other 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 2-1.1-3 (Exemptions) applicability.

Background and Description of Emission Units and Pollution Control Equipment

The Office of Air Quality (OAQ) has reviewed an application, submitted by T & S Equipment Company March 18, 2010, relating to the addition of MIG welding stations, two (2) plasma cutter, and changes in combustion units. The source will continue to meet exemption level emissions.

The source consists of the following existing emission unit:

- (a) One (1) spray booth, identified as V1, using a HVLP spray gun, with a capacity of metal 20 units per hour (maximum of 98 lbs/hr), controlled by dry filters and exhausting to stack V1.
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour: two (2) natural gas-fired forced air furnaces, identified as F-1 and F-2, with a maximum heat capacity of 2,2 MMBtu/hr.

The following is a list of the new and modified emission units:

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour:
- (1) One (1) natural gas-fired heater, identified as TS-1, with a maximum heat input capacity of 0.022 MMBtu/hr; and
 - (2) One (1) natural gas-fired heater, identified as TS-2, with a maximum heat input capacity of 0.40 MMBtu/hr; and
 - (3) Two (2) natural gas-fired tribunes, identified as TS-3, with a maximum heat input capacity of 0.95 MMBtu/hr, each.
- (b) Miscellaneous welding and machining operations consisting of:
- (1) Nineteen (19) steel MIG welder with a maximum consumption of 3.5 lbs/hr of wire each; and
 - (2) Five (5) aluminum MIG welders with a maximum consumption of 2.0 lbs/hr of wire each.
- (c) Two (2) Plasma cutters cutting 0.75 inch steel at a maximum rate of 14.00 inches per hour.

The following is a list of removed emission units:

- (a) Two (2) natural gas-fired forced air furnaces, identified as F1 and F2, with a maximum heat input capacity of 2.2 MMBtu/hr, each.

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – Exemption

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	Potential To Emit of the Entire Source (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Paint Booth	0.4	0.4	0.4	-	-	1.08	-	0.08	0.08 Dibutylphthalate
Combustion	0.06	0.22	0.22	0.2	2.94	0.16	2.47	0.058	0.056 Hexane
Welding/Plasma cutting	4.35	4.35	4.35	-	-	-	-	0.058	0.058 Magnesium
Total PTE of Entire Source	4.81	4.98	4.98	0.02	2.94	1.24	0.85	<25	<10
Exemptions Levels	5	5	5	10	10	10	25	25	10

negl. = 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".

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of all regulated criteria pollutants are less than the levels listed in 326 IAC 2-1.1-3(e)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3 (Exemptions).
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is 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.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) The requirements of the Standards Of Performance For New Stationary Sources for Stationary Gas Turbines are not included in this proposed revision, because the source's turbines has a peak load less than 10 million Btu per hour.
- (b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (40 CFR 63.3880, Subpart Mmmm (4M)) are

not included for this proposed revision, because this source is not a major source for HAPs.

- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, (40 CFR 63.11169, Subpart HHHHHH (6H)), are not included for this proposed revision, because the source does not perform paint stripping using paint strippers that contain methylene chloride (MeCl), performs autobody refinishing operations, or has spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd).
- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants for Area Source Standards for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)), are not included for this proposed revision, because the facility is not one of the nine source categories listed in 40 CFR 63.11514(a).
- (f) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

- (g) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is 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 following state rules are applicable to the source:

- (a) 326 IAC 2-1.1-3 (Exemptions)
Exemption applicability is discussed under the Permit Level Determination – Exemption section above.
- (b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is 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 2-4.1.
- (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.

Surface Coating Operation

- (g) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from spray booth V1 shall not exceed 0.536 pounds per hour when operating at a process weight rate of 0.048 tons per hour. The pound per hour limitation was calculated with the following equation:

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:

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

The dry particulate filter shall be in operation at all times the spray booth V1 is in operation, in order to comply with this limit.

- (h) 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)
The spray booth V1 performs the metal coating process and the source is under the SIC major group 37 and the source was constructed after July 1, 1990. However, the coating booth has actual VOC emissions less than 15 pounds per day. Therefore, spray booth V1 is not subject to 326 IAC 8-2-9.
- (i) There are no other 326 IAC 8 Rules that are applicable to the unit.

Welding Operations

- (j) (326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(9), the welding operations are exempt from the requirements of 326 IAC 6-3-2 because they consume less than 625 pounds of rod or wire per day.

Plasma Cutting Operations

- (k) (326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(10), the plasma cutting operation is exempt from the requirements of 326 IAC 6-3-2 because the total cutting is less than 3,400 inches per hour of stock one (1) inch thick.

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 March 18, 2010.

The operation of this source shall be subject to the conditions of the attached proposed Exemption No. 151-29091-00053. The staff recommends to the Commissioner that this Exemption be approved.

This Exemption supersedes Exemption No.: 151-10939-00053, issued on July 27, 1999.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Bruce Farrar 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) 234-5401 or toll free at 1-800-451-6027 extension 4-5401.
- (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.idem.in.gov

Appendix A: Emissions Calculations
Summary Sheet

Company Name: T & S Equipment Company
 Address City IN Zip: 900 Growth Parkway, Angola IN 46703
 Permit Number: 151-29091-00053
 Plt ID: 151-00053
 Reviewer: Bruce Farrar
 Date: March 18, 2010

Unlimited Potential Emissions										
Emission Units	Pollutant									
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	total HAPs	Single HAP	
Paint Booth	0.40	0.40	0.40	-	-	1.08	-	0.08	0.08	Dibutylphthalate
Welding/Plasma	4.35	4.35	4.35	-	-	-	-	0.058	0.058	Magnesium
Combustion	0.06	0.22	0.22	0.02	2.94	0.16	2.47	0.056	0.053	Hexane
TOTAL	4.81	4.98	4.98	0.02	2.94	1.24	2.47	<25	<10	

Total emissions based on rated capacity at 8,760 hours per year.

Appendix A: Emissions Calculations
 VOC and Particulate
 From Paint Booth Operations

T & S Equ Company Name: T & S Equipment Company
 Address City IN Zip: 900 Growth Parkway, Angola IN 46703
 Permit Number: 151-29091-00053
 PII ID: 151-00053
 Reviewer: Bruce Farrar
 Date: March 18, 2010

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
TRE-KOTE Acrylic	8.1	60.00%	49.2%	10.8%	52.2%	39.08%	0.01250	20,000	0.98	0.25	5.30	1.08	0.40	2.72	95%

State Potential Emissions Add worst case coating to all solvents

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
 Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hrs/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (1-Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)
 Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
 Total = Worst Coating + Sum of all solvents used

HAP Emission Calculations

Company Name: T & S Equipment Company
Address City IN Zip: 900 Growth Parkway, Angola IN 46703
Permit Number: 151-29091-00053
Pit ID: 151-00053
Reviewer: Bruce Farrar
Date: March 18, 2010

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight %	Dibutylphthalate
				Dibutylphthalate	(ton/yr)
Dibutylpht	9.07	0.01250	20.000	0.83%	0.08

Total State Potential Emissions

0.08

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Welding and Thermal Cutting

Company Name: T & S Equipment Company
Address City IN Zip: 900 Growth Parkway, Angola IN 46703
Permit Number: 151-29091-00053
P/I ID: 151-00053
Reviewer: Bruce Farrar
Date: March 18, 2010

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)	
			PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr		
WELDING												
Metal Inert Gas	19	3.5	0.004	0.0002				0.266	0.013	0.000	0	0.013
Metal Inert Gas	5	2	0.0723					0.723	0.000	0.000	0	0.000
FLAME CUTTING												
Plasma**	2	0.75	0.0039					0.005	0.000	0.000	0.000	0.000
EMISSION TOTALS												
Potential Emissions lbs/hr								0.99				0.013
Potential Emissions lbs/day								23.85				0.32
Potential Emissions tons/year								4.35				0.058

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process or
 **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 calculating 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, 8 mm thick cutting 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/d
 Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/yr

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

Company Name: T & S Equipment Company
Address City IN Zip: 900 Growth Parkway, Angola IN 46703
Permit Number: 151-29091-00053
Plt ID: 151-00053
Reviewer: Bruce Farrar
Date: March 18, 2010

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Unit Description
4.4	38.5	Heaters, F1 and F2, each at 2.2 MMBtu/hr
0.022	0.2	Heater, TS-1
0.4	3.5	Heater TS-2
1.9	16.6	Turbines, TS-3, 2 units
6.72	58.9	

	Pollutant				
	PM*	PM10*	SO2	NOx	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100 **see below	84
Potential Emission in tons/yr	0.06	0.22	0.02	2.94	2.47

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
 **Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
 MMBtu = 1,000,000 Btu
 MMCF = 1,000,000 Cubic Feet of Gas
 Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
 Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
 See page 6 for HAPs emissions calculations.

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

Company Name: T & S Equipment Corporation
Address City IN Zip: 900 Growth Parkway, Angola IN 46703

Permit Number: 151-29091-00053

Plt ID: 151-00053

Reviewer: Bruce Farrar

Date: March 18, 2010

		HAPs - Organics				
Emission Factor in lb/MMcf		Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr		6.183E-05	3.533E-05	2.208E-03	5.300E-02	1.001E-04
		HAPs - Metals				
Emission Factor in lb/MMcf		Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr		1.472E-05	3.239E-05	4.122E-05	1.119E-05	6.183E-05

Methodology is the same as page 5.

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



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Vincent Torres
T & S Equipment Company
POB 198
Angola, IN 46703

DATE: June 17, 2010

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

SUBJECT: Final Decision
Exemption
151-29091-00053

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:
Barry Trine, Responsible Official
Teri Schenk, Consultant
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.

Final Applicant Cover letter.dot 11/30/07

Mail Code 61-53

IDEM Staff	DPABST 6/17/2010 T & S Equipment Company 151-29091-00053 (Final)			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: CERTIFICATE OF MAILING ONLY	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Vincent Torres T & S Equipment Company P O Box 496 Angola IN 46703 (Source CAATS) (CONFIRM DELIVERY)										
2		Barry Trine Vice President T & S Equipment Company PO Box 496 Angola IN 46703 (RO CAATS)										
3		Steuben County Board of Commissioners 317 S Wayne Suite 2H Angola IN 46703 (Local Official)										
4		Steuben County Health Department 317 S. Wayne St, Community Center Suite 3-A Angola IN 46703-1938 (Health Department)										
5		Mr. Steve Christman NISWMD 2320 W 800 S, P.O. Box 370 Ashley IN 46705 (Affected Party)										
6		Mr. Diane Hanson 490 E 300 N Angola IN 46703 (Affected Party)										
7		Niann Lautzenhiser 660 LN 210 Hamilton LK Hamilton IN 46742 (Affected Party)										
8		Ms. Teri Schenk Environmental Solutions, LLC PO Box 349 Elkhart IN 46517 (Consultant)										
9												
10												
11												
12												
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14												
15												

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