

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - RENEWAL

PERMITTEE

Welded Tube Company of America D/B/A Copperweld  
Attn: Joe Wideman  
1855 East 122nd Street  
Chicago, Illinois 60633

Application No.: 77010001

I.D. No.: 031600CFW

Applicant's Designation:

Date Received: April 23, 2001

Subject: Metal Tube Manufacturing Plant

Date Issued: February 18, 2003

Expiration Date: February 18, 2008

Location: 1855 East 122nd Street, Chicago, 60633

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of three paint booths with permanent total enclosures controlled by regenerative thermal oxidizer (RTO), paint mixers, rust preventive applicator, cold solvent degreasers and gas heaters pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of volatile organic material (VOM) and hazardous air pollutants (HAPs) from the source to less than major source thresholds (i.e., 25 tons/year for VOM, 10 tons/year for a single HAP and 25 tons/year for totaled HAP). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program permit. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits for this location.
2. This permit is issued based upon the paint booths being subject to the VOM control requirements of 35 Ill. Adm. Code 218, Subpart F: Coating Operations. Compliance with the requirements of this subpart is achieved through the use of compliance coating pursuant to 35 Ill. Adm. Code 218.204(j)(4)(A) or through the use of capture system and control device that provides more than 81 percent overall reduction in the emissions of VOM from the coating lines in accordance with the requirements of Sections 218.207(b)(1).
- 3a. Usage of raw materials and VOM emissions shall not exceed the following limits:

Usage	VOM Content	VOM Emissions
-------	-------------	---------------

<u>Material</u>	<u>(Gal/Mo)</u>	<u>(Gal/Yr)</u>	<u>(Lb/Gal)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
<u>Painting*</u>					
Paint	4,600	32,000	4.14	0.4	2.6
Thinner/Clean-Up	4,000	28,000	7.14	0.6	4.0

(Continued)

<u>Material</u>	<u>Usage</u>		<u>VOM Content</u>	<u>VOM Emissions</u>	
	<u>(Gal/Mo)</u>	<u>(Gal/Yr)</u>	<u>(Lb/Gal)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
<u>Paint Mixing</u>					
Paint	4,600	32,000	4.14	0.1	0.7
Paint Thinner	4,000	28,000	7.14	0.1	1.0
Clean-Up Solvents	100	715	7.14	0.4	2.6
Rust Preventive	2,200	15,000	0.82	0.9	6.2
				Total:	17.1

\* Controlled with afterburner.

- b. Usage of raw materials and HAP (toluene)\*\* emission shall not exceed the following limits:

<u>Material</u>	<u>Usage</u>		<u>Toluene Content</u>	<u>Toluene Emissions</u>	
	<u>(Gal/Mo)</u>	<u>(Gal/Yr)</u>	<u>(Lb/Gal)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
<u>Painting*</u>					
Paint	4,600	32,000	1.75	0.2	1.1
Paint Thinner	4,000	28,000	7.14	0.6	4.0
<u>Paint Mixing</u>					
Paint	4,600	32,000	1.75	0.04	0.3
Paint Thinner	4,000	28,000	7.14	0.1	1.0
Clean-up Solvents	100	715	7.14	0.4	2.6
				Total:	9.0

\* Controlled with afterburner.

\*\* Toluene is a VOM and is accounted for in Condition 3a.

- c. These limits define the potential emissions of the VOM and HAPs and are based on the actual emissions determined from the maximum production capacity, 96% afterburner overall control efficiency and 1% VOM/HAP losses from paint mixing operations. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.
4. The VOM emissions from cold degreasing operations shall not exceed 0.9 tons/mo and 6.5 tons/yr.

The VOM emissions shall be determined from the following equation:

$$E = \sum (S_i \times C_i) - W \times C_w$$

Where:

E VOM emissions (tons)

S<sub>i</sub> - Solvent usage (tons)

C<sub>i</sub> - VOM content of the solvent (fraction)

W - Certified amount of waste shipped-off (tons)

C<sub>w</sub> - Certified VOM content of the waste (fraction)

These limits define the potential emissions of the VOM and are based on the actual emissions determined from the maximum production capacity. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

5. The emissions of HAPs as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish by rule which would require the Permittee to obtain a Clean Air Act Permit Program permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a Clean Air Act Permit Program permit from the Illinois EPA.
- 6a. The afterburner shall be in operation at all times when coating operations are performed in any of the controlled coating booths.
- b. The afterburners shall be equipped with a continuous monitoring device which is installed, calibrated, maintained and operated according to vendor's specifications at all times that the afterburner is in use. This device shall monitor the afterburner combustion chamber temperature.
- c. Monitoring device shall be equipped with a continuous recorder of the temperature. It shall be installed, calibrated, operated and maintained, in accordance with manufacturer's specifications.
7. Operation and emissions of the natural gas fired equipment shall not exceed the following limits:

Natural Gas Usage: 12 mmscf/mo, 120 mmscf/yr

<u>Pollutant</u>	<u>Emission Factor</u> (lb/mmscf)	<u>Emissions</u> (Ton/Mo) (Ton/Yr)
------------------	--------------------------------------	---------------------------------------

Nitrogen Oxides (NO <sub>x</sub> )	100	0.6	6.0
Carbon Monoxide (CO)	84	0.5	5.0
Particulate Matter (PM)	7.6	0.05	0.5
Volatile Organic Materials (VOM)	5.5	0.03	0.3

These limits are based on the maximum boilers operations and standard emission factors given by AP-42. Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data.

- 8a. The Permittee shall maintain daily records of the following information:
- i. Control devices monitoring data;

- ii. A log of operating time for the capture system, control devices, monitoring devices, and the associated coating lines;
  - iii. A maintenance log for the capture system, control devices, and monitoring devices detailing all routine and non-routine maintenance performed including dates and duration of any outages.
- b. The Permittee shall maintain monthly records of the following items:
- i. The name, identification number, usage (gal/month), density (lb/gal), VOM, toluene and total HAP content of each coating, thinner and solvent used in the controlled enclosure;
  - ii. The name, identification number, usage (gal/month), density (lb/gal), VOM, toluene and total HAP content of each coating, thinner and solvent used outside the controlled enclosure; and
  - iii. VOM, toluene and total HAP emissions for current month and total running for last 12 months (ton/month, tons/yr).
9. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA and USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to the Illinois EPA request for records during the course of a source inspection.
10. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedances or violation and efforts to reduce emissions and future occurrences.
11. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing, or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at

the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
9511 West Harrison  
Des Plaines, Illinois 600169

12. The Permittee shall submit the following additional information from the prior calendar year, along with the Annual Emissions Report, due May 1st of each year: The names and amounts of coatings and solvents used (gal/year) and their VOM and HAP content (weight percent or lb/gal).

If you have any questions on this permit, please call Valeriy Brodsky at 217/785-5151.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

DES:VJB:jar

cc: Illinois EPA, FOS Region 1  
Illinois EPA, Compliance Section  
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the Metal Tube Manufacturing Plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. This is a usage of 47,000 gallons of coatings and 29,000 gallons of solvent per year. The resulting maximum emissions are well below the levels, e.g., 25 tons per year of VOM, 10 tons per year for a single HAP, and 25 tons per year for totaled HAP at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that material is handled, and control measures are more effective than required in this permit.

- 1a. Usage of raw materials and VOM emissions shall not exceed the following limits:

<u>Material</u>	<u>Usage</u>		<u>VOM Content</u> (Lb/Gal)	<u>VOM Emissions</u>	
	(Gal/Mo)	(Gal/Yr)		(Tons/Mo)	(Tons/Yr)
<u>Painting*</u>					
Paint	4,600	32,000	4.14	0.4	2.6
Thinner/Clean-Up	4,000	28,000	7.14	0.6	4.0
<u>Paint Mixing</u>					
Paint	4,600	32,000	4.14	0.1	0.7
Paint Thinner	4,000	28,000	7.14	0.1	1.0
Clean-Up Solvents	100	715	7.14	0.4	2.6
Rust Preventive	2,200	15,000	0.82	0.9	<u>6.2</u>
				Total:	17.1

\* Controlled with afterburner.

- b. Usage of raw materials and HAP (toluene)\*\* emission shall not exceed the following limits:

<u>Material</u>	<u>Usage</u>		<u>Toluene</u> <u>Content</u> (Lb/Gal)	<u>Toluene Emissions</u>	
	(Gal/Mo)	(Gal/Yr)		(Tons/Mo)	(Tons/Yr)
<u>Painting*</u>					
Paint	4,600	32,000	1.75	0.2	1.1
Paint Thinner	4,000	28,000	7.14	0.6	4.0
<u>Paint Mixing</u>					
Paint	4,600	32,000	1.75	0.04	0.3
Paint Thinner	4,000	28,000	7.14	0.1	1.0

Clean-up Solvents	100	715	7.14	0.4	<u>2.6</u>
				Total:	9.0

\* Controlled with afterburner.

\*\* Toluene is a VOM and is accounted for in Condition 3a.

2. The VOM emissions from cold degreasing operations shall not exceed 0.9 tons/mo and 6.5 tons/yr.

The VOM emissions shall be determined from the following equation:

$$E = \sum (S_i \times C_i) - W \times C_w$$

Where:

E VOM emissions (tons)

$S_i$  - Solvent usage (tons)

$C_i$  - VOM content of the solvent (fraction)

W - Certified amount of waste shipped-off (tons)

$C_w$  - Certified VOM content of the waste (fraction)

3. The emissions of HAPs as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish by rule which would require the Permittee to obtain a Clean Air Act Permit Program permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a Clean Air Act Permit Program permit from the Illinois EPA.
4. Operation and emissions of the natural gas fired equipment shall not exceed the following limits:

Natural Gas Usage: 12 mmscf/mo, 120 mmscf/yr

<u>Pollutant</u>	<u>Emission Factor</u> (lb/mmscf)	<u>Emissions</u>	
		(Ton/Mo)	(Ton/Yr)
Nitrogen Oxides (NO <sub>x</sub> )	100	0.6	6.0
Carbon Monoxide (CO)	84	0.5	5.0
Particulate Matter (PM)	7.6	0.05	0.5
Volatile Organic Materials (VOM)	5.5	0.03	0.3