

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

TC Industries, Inc.  
Attn: Robert F. Berry, President-Administration  
3703 South Route 31  
Crystal Lake, Illinois 60012

<u>Application No.:</u> 96030116	<u>I.D. No.:</u> 111813AAE
<u>Applicant's Designation:</u>	<u>Date Received:</u> May 24, 2004
<u>Subject:</u> Heat Treating Steel Fabrication	
<u>Date Issued:</u>	<u>Expiration Date:</u>
<u>Location:</u> 3703 South Route 31, Crystal Lake, McHenry County, 60012	

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of 23 heat treating furnaces, oil quenching operations, flow coat painting with dryer, hand spray painting, paint burn-off oven, two (2) natural gas-fired boilers (less than 5 million Btu/hour, each), space heaters, 3 preheat ovens, North American burner/back-up, natural gas-fired emergency generator, die cleaning operation and a 2,500 gallon gasoline storage tank, 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:
  - i. To limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for Carbon Monoxide (CO), Volatile Organic Material (VOM), and 10 tons/year for a single Hazardous Air Pollutant (HAP) and 25 tons/year for combination of such HAPs). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.
  - ii. To establish federally enforceable production and operating limitations, which restrict the potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs so that the source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Coating of Miscellaneous Metal Parts and Products, 40 CFR 63 Subpart Mmmm.
  - iii. To establish federally enforceable Emission Reduction Market System (ERMS) provisions, including baseline emissions, allotment for each seasonal allotment period, identification of any units deemed to be insignificant activities for the purposes of the

ERMS, emissions calculation methodologies, and provisions addressing all other applicable requirements of 35 Ill. Adm. Code Part 205, which are described in Attachment B.

- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
- 2a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.
- b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
- d. Pursuant to 35 Ill. Adm. Code 212.321(a), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).
- 3. Pursuant to 35 Ill. Adm. Code 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.
- 4. Pursuant to 35 Ill. Adm. Code 216.121, no person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission source with actual heat input greater than 2.9 MW (10 mmBtu/hour) to exceed 200 ppm, corrected to 50 percent excess air.
- 5a. Pursuant to 35 Ill. Adm. Code 218.122(b), no person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 liters (250 gallons), unless such tank is equipped with a permanent submerged loading pipe or an equivalent device approved by the Illinois EPA according to the provisions of 35 Ill. Adm. Code 201, and further processed consistent with 35 Ill. Adm. Code 218.108, or unless such tank is a pressure tank as described in 35 Ill. Adm. Code 218.121(a) or is fitted with a recovery system as described in 35 Ill. Adm. Code 218.121(b) (2).

- b. Pursuant to 35 Ill. Adm. Code 218.204(j) (2), except as provided in 35 Ill. Adm. Code 218.205, 218.207, 218.208, 218.212, 218.215 and 218.216, no owner or operator of a coating line shall apply at any time any coating in which the VOM content exceeds the following emission limitations for the specified coating. The following emission limitations are expressed in units of VOM per volume of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied at each coating applicator, except where noted. Compounds which are specifically exempted from the definition of VOM should be treated as water for the purpose of calculating the "less water" part of the coating composition. Compliance with 35 Ill. Adm. Code 218 Subpart F must be demonstrated through the applicable coating analysis test methods and procedures specified in 35 Ill. Adm. Code 218.105(a) and the recordkeeping and reporting requirements specified in 35 Ill. Adm. Code 218.211(c) except where noted. The emission limitations are as follows:

Miscellaneous Metal Parts and Products

Coating Extreme performance coating		<u>kg/l</u>	<u>lb/gal</u>
i.	Air dried	0.42	3.5
ii.	Baked	0.40	3.3

- c. Pursuant to 35 Ill. Adm. Code 218.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission unit, except as provided in 35 Ill. Adm. Code 218.302, 218.303, or 218.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 218 Subpart G shall only apply to photochemically reactive material.
- d. Pursuant to 35 Ill. Adm. Code 218.583, no person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank at a gasoline dispensing operation unless:
1. The tank is equipped with a submerged loading pipe; and
  2. The vapors displaced from the storage tank during filling are processed by a vapor control system that includes one or more of the following:
    - A. A vapor collection system that meets the requirements of subsection (d) (4) below: or
    - B. A refrigeration-condensation system or any other system approved by the Agency and approved by the USEPA as a SIP revision, that recovers at least 90 percent by weight of all vaporized organic material from the equipment being controlled; and
    - C. The delivery vessel displays the appropriate sticker pursuant to the requirements of Section 218.584(b) or (d) of this Part; and
  3. By March 15, 1995, all tank vent pipes are equipped with pressure/vacuum relief valves with the following design specifications:
    - A. The pressure/vacuum relief valve shall be set to resist a pressure of at least 3.5 inches water column and to resist a vacuum of no less than 6.0 inches of water column: or

B. The pressure/vacuum relief valve shall meet the requirements of Section 218.586(c) of this Part.

6. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hour (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.
- 7a. Pursuant to 35 Ill. Adm. Code 218.122(c), if no odor nuisance exists the limitations of 35 Ill. Adm. Code 218.122 shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F).
- b. The die cleaning operation is not subject to 35 Ill. Adm. Code 218.182 (Cold Cleaning) because wipe cleaning of the parts is utilized.
- c. Pursuant to 35 Ill. Adm. Code 218.209, no owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 is required to meet the limitations of 35 Ill. Adm. Code 218 Subpart G (35 Ill. Adm. Code 218.301 or 218.302), after the date by which the coating line is required to meet 35 Ill. Adm. Code 218.204.
- d. The oil quenching operations are not subject to 35 Ill. Adm. Code 218 Subpart TT (Other Emission Units). Pursuant to 35 Ill. Adm. Code 218.980(f), the control requirements in 35 Ill. Adm. Code Subpart TT shall not apply to iron and steel production.
- 8a. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.
- b. The heat treating furnaces, paint burn-off oven, boilers, space heaters, and pre-heat oven shall only be operated with natural gas as the fuel. The use of any other fuel in the heat treating furnaces, paint burn-off oven, boilers, space heaters, and pre-heat oven requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.
- c. The natural gas-fired emergency generator shall only be operated with natural gas as the fuel. The use of any other fuel in the emergency generator requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.
- d. Material insulated with polyvinyl chloride or asbestos, or scrap containing the fuming metals tin, Zinc or lead shall not be charged to the paint burn-off oven.
- e. The afterburner combustion chamber of the paint burn-off oven furnace shall be preheated to at least the manufacturer's recommended temperature but no less

than the temperature at which compliance was demonstrated in the most recent compliance test, or 1400 F in the absence of a compliance test. This temperature shall be maintained during operation of the burn-off oven.

- f. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the afterburner associated with the paint burn-off oven such that the afterburner is kept in proper working condition and not cause a violation of the Illinois Environmental Protection Act or regulations promulgated therein.
- 9a. Emissions of VOM from the affected flow coating operation, excluding emission from the fuel combustion, shall not exceed 5.18 tons/month and 51.80 tons/year.
  - i. This limit is based on the amount of coating used (gallons), the VOM content of the coating (% by weight), the coating density (lbs/gallons), and no emissions from clean-up solvent.
  - ii. The above limitations were established in Permit 96030116, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to Title I of the Clean Air Act, specifically the federal rules for Prevention of Significant Deterioration (PDS), 40 CFR 52.21.
- b. Emissions of VOM from the affected hand spray painting shall not exceed 1750 pounds/month and 7.0 tons/year.
  - i. This limit is based on the amount of coating used, the VOM content of the coating, the coating density, and no emissions from clean-up solvent.
- c. The VOM and HAP emissions from the coating and painting shall be determined from the following equation on a monthly basis:

$$E = \sum (M_i \times C_i)$$

Where:

E = VOM emissions (tons);

M<sub>i</sub> = VOM/HAP-containing material usage (tons); and

C<sub>i</sub> = VOM/HAP content of the raw material (fraction).

- d. Operation and emissions of the natural gas-fired combustion units (including heat treating furnaces, boilers, space heaters, preheat oven and drying oven) shall not exceed the following limits:
  - i. Natural Gas Usage: 183 mmscf/month, 1830 mmscf/year; and
  - ii. Emissions from the combustion of natural gas:

<u>Pollutant</u>	<u>Emission Factor (Lbs/mmscf)</u>	<u>Emissions (Tons/Month)</u>	<u>Emissions (Tons/Year)</u>
Carbon Monoxide (CO)	84.0	7.69	76.86

Nitrogen Oxides (NO <sub>x</sub> )	100.0	9.15	91.50
Particulate Matter (PM)	7.6	0.70	6.96
Sulfur Dioxide (SO <sub>2</sub> )	0.6	0.06	0.55
Volatile Organic Material (VOM)	5.5	0.51	5.04

These limits are based on the maximum equipment operations and standard emission factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998)

- e. i. Emissions of the oil quenching operation shall not exceed the following limits:

Particulate Matter Emissions		VOM Emissions	
<u>(Lbs/Mo)</u>	<u>(Tons/Year)</u>	<u>(Lbs/Mo)</u>	<u>(Tons/Year)</u>
1436	7.18	228	1.14

- ii. The PM and VOM emissions shall be calculated using emission factors of 194.5 lb PM/ton of quench oil usage and 30.9 lb VOM/ton of quench oil usage.

These limits are based upon maximum quench oil usage of 73.86 tons/year.

- f. Emissions from the paint burn-off oven shall not exceed the following limits:

VOM Emissions	
<u>(Lbs/Hour)</u>	<u>(Tons/Year)</u>
012	1.05

These limits are based upon maximum operation (8,760 hours/year) and stack test data provided by the manufacturer.

- g. Emissions and operation of the natural gas-fired emergency generator shall not exceed the following limits:

- i. Operation of the generator:

<u>(Million BTU/hour)</u>	<u>(Hours/year)</u>
0.719	500

- ii. Emissions from the generators (combined):

<u>Pollutant</u>	Emission Factor	Emissions	
	<u>(Lbs/mmBtu)</u>	<u>(Lbs/Hour)</u>	<u>(Tons/Year)</u>
CO	3.72	2.68	0.67
NO <sub>x</sub>	2.21	1.59	0.40
PM	0.00991	0.01	0.01
SO <sub>2</sub>	0.000588	0.01	0.01
VOM	0.0296	0.01	0.01

These limits are based on maximum operation and standard emission factors (Table 3.2-3, AP-42, Fifth Edition, Volume I, Supplement B, October 1996).

h. Emissions from the die cleaning operation shall not exceed the following limits:

VOM Usage		VOM Emissions	
<u>(Lbs/Month)</u>	<u>(Tons/Year)</u>	<u>(Lbs/Month)</u>	<u>(Tons/Year)</u>
1040	5.24	1040	5.24

These limits are based upon maximum operation and material balance.

- i. Emissions of VOM from the gasoline storage tank shall not exceed 0.1 tons/month and 0.85 tons/year. This limit is based on the maximum gasoline throughput and use of the TANKS Program (Version 4.09D, February 5, 2008).
- 10. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act from the source shall not exceed 0.9 tons/month and 9.0 tons/year of any single HAP and 2.25 tons/month and 22.5 tons/year of any combination of such HAPs. 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 CAAPP Permit from the Illinois EPA and the NEHAP for Coating of Miscellaneous Metal Parts and Products, 40 CFR 63 Subpart Mmmm.
- 11. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- 12a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
  - i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.
  - ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.
- b. Testing required by Conditions 13 and 14 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.

13. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA, pursuant to 35 Ill. Adm. Code 212.110(c).
14. Pursuant to 35 Ill. Adm. Code 218.211(a), the VOM content of each coating and the efficiency of each capture system and control device shall be determined by the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105 to establish the records required under 35 Ill. Adm. Code 218.211.
15. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.
16. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- 17a. Pursuant to 35 Ill. Adm. Code 218.129(f), the owner or operator of each storage vessel specified in 35 Ill. Adm. Code 218.119 shall maintain readily accessible records of the dimension of the storage vessel and an analysis of the capacity of the storage vessel. Each storage vessel with a design capacity less than 40,000 gallons is subject to no provisions of 35 Ill. Adm. Code Part 218 other than those required by maintaining readily accessible records of the dimensions of the storage vessel and analysis of the capacity of the storage vessel.
- b. Pursuant to 35 Ill. Adm. Code 218.211(c)(2), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 other than 35 Ill.

Adm. Code 218.204(a) (2) or (a) (3) and complying by means of 35 Ill. Adm. Code 218.204 shall collect and record all of the following information for each coating line and maintain the information at the source for a period of three years:

- i. The name and identification number of each coating as applied on each coating line.
- ii. The weight of VOM per volume and the volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line.

18a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the Conditions of this permit:

- i. Records addressing use of good operating practices for the afterburner associated with the paint burn-off oven:
  - A. Records for periodic inspection of the afterburner associated with the paint burn-off oven with date, individual performing the inspection, and nature of inspection; and
  - B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- ii. Coating usage (gallons/month and gallons/year);
- iii. Solvent usage (gallons/month and gallons/year);
- iv. VOM and HAP contents of materials used (percent by weight);
- v. The densities of materials used (lbs/gallon);
- vi. Quantity of quench oil purchased (pounds/month and tons/year);
- vii. Hours of operation (hours/month and hours/year) for the paint burn-off oven;
- viii. Records of operating temperature of the afterburners (in °F) for the paint burn-off oven;
- ix. Design information for the gasoline storage tank showing the presence of a submerged loading pipe or submerged fill;
- x. Maintenance and repair records for the gasoline storage tank, as related to the repair or replacement of the loading pipe;
- xi. The throughput of the gasoline storage tank (gallons/month and gallons/year);
- xii. Natural gas usage (mmscf/month and mmscf/year); and
- xiii. Monthly and annual emission of CO, NO<sub>x</sub>, PM, SO<sub>2</sub>, VOM and HAPs (individual and combined) with supporting calculations (tons/month and tons/year)

- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or 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 an Illinois EPA or USEPA request for records during the course of a source inspection.
19. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.
- 20a. Pursuant to 35 Ill. Adm. Code 218.211(c)(3), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 of and complying by means of 35 Ill. Adm. 218.204 shall notify the Illinois EPA in the following instances:
- i. Any record showing violation of 35 Ill. Adm. Code 218.204 shall be reported by sending a copy of such record to the Illinois EPA within 30 days following the occurrence of the violation.
  - ii. At least 30 calendar days before changing the method of compliance from 35 Ill. Adm. Code 218.204 to 35 Ill Adm. Code 218.205 or 35 Ill. Adm. Code 218.207, the owner or operator shall comply with all requirements of 35 Ill Adm. Code 218.211(d)(1) or (e)(1), respectively. Upon changing the method of compliance from 35 Ill. Adm. Code 218.204 to 35 Ill. Adm. Code 218.205 or 35 Ill. Adm. Code 218.207, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.211(d) or (e), respectively.
- b. Upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the requirements of 35 Ill. Adm. Code 218 Subparts PP, QQ, RR, TT or 35 Ill. Adm. Code 218.208(b) shall submit records to the Illinois EPA within 30 calendar days from the date of the request that document that the emission unit is exempt from those requirements.
- 21a. If there is an exceedance of or deviation from 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 or deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.
- b. Two (2) copies of required reports and notifications 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 60016

It should be noted that the shot blaster wheelabrators with dust collectors are exempt from permitting pursuant to 35 Ill. Adm. Code 201.146(aa) and (jj).

If you have any questions on this, please call David Hulskotter at 217/782-2113.

Edwin C. Bakowski, P.E.  
Acting Manager, Permit Section  
Division of Air Pollution Control

Date Signed: \_\_\_\_\_

ECB:DWH:jws

cc: Illinois EPA, FOS Region 1  
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the steel parts manufacturer 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. The resulting maximum emissions are below the levels, (e.g., 100 tons per year of VOM, 10 tons per year for a single HAP, and 25 tons per year for totaled HAPs) 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 less material is handled, and control measures are more effective than required in this permit.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)						<u>Total HAPs</u>
	<u>CO</u>	<u>NO<sub>x</sub></u>	<u>PM</u>	<u>SO<sub>2</sub></u>	<u>VOM</u>	<u>Single HAP</u>	
Flow Coating Operation					51.80		
Hand Spray Painting					7.0		
Natural Gas Combustion	76.86	91.50	6.96	0.55	1.93		
Quench Oil Operation			7.18		1.14		
Paint Burn-Off Oven					3.02		
Generator	0.67	0.40	0.01	0.01	0.01		
Die Cleaning Operation					5.24		
Gasoline Storage Tank	--	--	--	--	0.85	--	--
Totals	77.53	91.90	14.15	0.56	69.02	9.0	22.5

DWH:96030036:jws

Attachment B - Emissions Reduction Market System (ERMS)

1. Description of ERMS

The ERMS is a "cap and trade" market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as required by Section 182(c) of the Clean Air Act.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Participating sources must hold "allotment trading units" (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set in the sources' permits. These allotments are established from historical VOM emissions or "baseline emissions" lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source shall have sufficient ATUs in its transaction account to cover its actual VOM emissions during the preceding season. A transaction account's balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources' transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUs (35 Ill. Adm. Code 205.630) and ATUs issued by the Illinois EPA as a consequence of VOM emissions reductions from an Emissions Reduction Generator or an Intersector Transaction (35 Ill. Adm. Code 205.500 and 35 Ill. Adm. Code 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the "Alternative Compliance Market Account" (ACMA) (35 Ill. Adm. Code 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 Ill. Adm. Code 205.630).

2. Applicability

This source is considered a "participating source" for purposes of the ERMS, 35 Ill. Adm. Code Part 205.

3. Obligation to Hold Allotment Trading Units (ATUs)

- a. Pursuant to 35 Ill. Adm. Code 205.150(c)(1) and 35 Ill. Adm. Code 205.720, and as further addressed by Condition 8 of this Attachment, as of December 31 of each year, this source shall hold ATUs in its account in an amount not less than the ATU equivalent of its VOM emissions during the preceding seasonal allotment period (May 1 - September 30), not including VOM emissions from the following, or the source shall be

subject to "emissions excursion compensation," as described in Condition 5 of this Attachment.

- i. VOM emissions from emission units that the Illinois EPA determines would qualify as insignificant activities under 35 Ill. Adm. Code 201 Subpart F if the source were a CAAPP source and for which a statement to this effect is contained in the FESOP for a participating or new participating source are exempt from the requirements of 35 Ill. Adm. Code Part 205, in accordance with 35 Ill. Adm. Code 205.220(b);
  - ii. Excess VOM emissions associated with startup, malfunction, or breakdown of an emission unit for sources permitted to operate during startup, malfunction or breakdown pursuant to 35 Ill. Adm. Code 201.262, in accordance with 35 Ill. Adm. Code 205.225;
  - iii. Excess VOM emissions to the extent allowed by a Variance, Consent Order, or Compliance Schedule, in accordance with 35 Ill. Adm. Code 205.320(e)(3);
  - iv. Excess VOM emissions that are a consequence of an emergency as approved by the Illinois EPA, pursuant to 35 Ill. Adm. Code 205.750; and
  - v. VOM emissions from certain new and modified emission units as addressed by Condition 8(b) of this Attachment, if applicable, in accordance with 35 Ill. Adm. Code 205.320(f).
- b. Notwithstanding the above condition, in accordance with 35 Ill. Adm. Code 205.150(c)(2), if a source commences operation of a major modification, pursuant to 35 Ill. Adm. Code Part 203, the source shall hold ATUs in an amount not less than 1.3 times its seasonal VOM emissions attributable to such major modification during the seasonal allotment period, determined in accordance with the construction permit for such major modification or applicable provisions of this permit.

#### 4. Market Transactions

- a. The source shall apply to the Illinois EPA for and obtain authorization for a Transaction Account prior to conducting any market transactions, as specified at 35 Ill. Adm. Code 205.610(a).
- b. The Permittee shall promptly submit to the Illinois EPA any revisions to the information submitted for its Transaction Account, pursuant to 35 Ill. Adm. Code 205.610(b).
- c. The source shall have at least one account officer designated for its Transaction Account, pursuant to 35 Ill. Adm. Code 205.620(a).
- d. Any transfer of ATUs to or from the source from another source or general participant must be authorized by a qualified Account Officer designated by the source and approved by the Illinois EPA, in accordance with 35 Ill. Adm. Code 205.620, and the transfer must be submitted to the Illinois EPA for entry into the Transaction Account database.

#### 5. Emissions Excursion Compensation

Pursuant to 35 Ill. Adm. Code 205.720, if the source fails to hold ATUs in accordance with Condition 3 of this Attachment, it shall provide emissions excursion compensation in accordance with the following:

- a. Upon receipt of an Excursion Compensation Notice issued by the Illinois EPA, the source shall purchase ATUs from the ACMA in the amount specified by the notice, as follows:
  - i. The purchase of ATUs shall be in an amount equivalent to 1.2 times the emissions excursion; or
  - ii. If the source had an emissions excursion for the seasonal allotment period immediately before the period for the present emissions excursion, the source shall purchase ATUs in an amount equivalent to 1.5 times the emissions excursion.
- b. If requested in accordance with paragraph (c) below or in the event that the ACMA balance is not adequate to cover the total emissions excursion amount, the Illinois EPA will deduct ATUs equivalent to the specified amount or any remaining portion thereof from the ATUs to be issued to the source for the next seasonal allotment period.
- c. Pursuant to 35 Ill. Adm. Code 205.720(c), within 15 days after receipt of an Excursion Compensation Notice, the owner or operator may request that ATUs equivalent to the amount specified be deducted from the source's next seasonal allotment by the Illinois EPA, rather than purchased from the ACMA.

6. Quantification of Seasonal VOM Emissions

- a. The methods and procedures specified in of this permit for determining VOM emissions and compliance with VOM emission limitations shall be used for determining seasonal VOM emissions for purposes of the ERMS, with the following exceptions [35 Ill. Adm. Code 205.315(b)]:

Fuel Combustion units and oil quenching operations

- b. The Permittee shall report emergency conditions at the source to the Illinois EPA, in accordance with 35 Ill. Adm. Code 205.750, if the Permittee intends to deduct VOM emissions in excess of the technology-based emission rates normally achieved that are attributable to the emergency from the source's seasonal VOM emissions for purposes of the ERMS. These reports shall include the information specified by 35 Ill. Adm. Code 205.750(a), and shall be submitted in accordance with the following:
  - i. An initial emergency conditions report within two days after the time when such excess emissions occurred due to the emergency; and
  - ii. A final emergency conditions report, if needed to supplement the initial report, within 10 days after the conclusion of the emergency.

7. Annual Account Reporting

- a. For each year in which the source is operational, the Permittee shall submit, as a component of its Annual Emissions Report, seasonal VOM emissions information to the Illinois EPA for the seasonal allotment period. This report shall include the following information [35 Ill. Adm. Code 205.300]:
  - i. Actual seasonal emissions of VOM from the source;
  - ii. A description of the methods and practices used to determine VOM emissions, as required by this permit, including any supporting documentation and calculations;
  - iii. A detailed description of any monitoring methods that differ from the methods specified in this permit, as provided in 35 Ill. Adm. Code 205.337;
  - iv. If a source has experienced an emergency, as provided in 35 Ill. Adm. Code 205.750, the report shall reference the associated emergency conditions report that has been approved by the Illinois EPA;
  - v. If a source's baseline emissions have been adjusted due to a Variance, Consent Order, or CAAPP permit Compliance Schedule, as provided for in 35 Ill. Adm. Code 205.320(e)(3), the report shall provide documentation quantifying the excess VOM emissions during the season that were allowed by the Variance, Consent Order, or Compliance Schedule, in accordance with 35 Ill. Adm. Code 205.320(e)(3); and
  - vi. If a source is operating a new or modified emission unit for which three years of operational data is not yet available, as specified in 35 Ill. Adm. Code 205.320(f), the report shall specify seasonal VOM emissions attributable to the new emission unit or the modification of the emission unit.
- b. This report shall be submitted by October 31 of each year, for the preceding seasonal allotment period.

8. Allotment of ATUs to the Source

- a.
  - i. The allotment of ATUs to this source is 157 ATUs per seasonal allotment period.
    - ii. This allotment of ATUs reflects the Illinois EPA's determination that the source's baseline emissions were 16.21 tons per season.
  - iii. The source's allotment reflects 88% of the baseline emissions (12% reduction), except for the VOM emissions from specific emission units excluded from such reduction, pursuant to 35 Ill. Adm. Code 205.405, including units complying with MACT or using BAT, as identified in Condition 10 of this Attachment of this permit.
  - iv. ATUs will be issued to the source's Transaction Account by the Illinois EPA annually. These ATUs will be valid for the seasonal

allotment period following issuance and, if not retired in this season, the next seasonal allotment period.

- v. Condition 3(a) of this Attachment becomes effective beginning in the seasonal allotment period following the initial issuance of ATUs by the Illinois EPA into the Transaction Account for the source.

b. Contingent Allotments for New or Modified Emission Units

None

- c. Notwithstanding the above, part or all of the above ATUs will not be issued to the source in circumstances as set forth in 35 Ill. Adm. Code Part 205, including:

- i. Transfer of ATUs by the source to another participant or the ACMA, in accordance with 35 Ill. Adm. Code 205.630;
- ii. Deduction of ATUs as a consequence of emissions excursion compensation, in accordance with 35 Ill. Adm. Code 205.720; and
- iii. Transfer of ATUs to the ACMA, as a consequence of shutdown of the source, in accordance with 35 Ill. Adm. Code 205.410.

9. Recordkeeping for ERMS

The Permittee shall maintain copies of the following documents as its Compliance Master File for purposes of the ERMS [35 Ill. Adm. Code 205.700(a)]:

- a. Seasonal component of the Annual Emissions Report;
- b. Information on actual VOM emissions, as recorded and as required by Condition 18(a) of this permit and Condition 6(a) of this Attachment; and
- c. Any transfer agreements for the purchase or sale of ATUs and other documentation associated with the transfer of ATUs.

10. Exclusions from Further Reductions

- a. VOM emissions from the following emission units shall be excluded from the VOM emissions reductions requirements specified in 35 Ill. Adm. Code 205.400(c) and (e) as long as such emission units continue to satisfy the following [35 Ill. Adm. Code 205.405(a)]:
  - i. Emission units that comply with any NESHAP or MACT standard promulgated pursuant to the Clean Air Act;
  - ii. Direct combustion emission units designed and used for comfort heating purposes, fuel combustion emission units, and internal combustion engines; and
  - iii. An emission unit for which a LAER demonstration has been approved by the Illinois EPA on or after November 15, 1990.

The source has demonstrated in its ERMS application and the Illinois EPA has determined that the following emission units qualify for exclusion from further reductions because they meet the criteria as indicated above [35 Ill. Adm. Code 205.405(a) and (c)]:

5 Boilers less than 5 million Btus/hour each natural gas fired; oil quenching operations; flow coat painting

- b. VOM emissions from emission units using BAT for controlling VOM emissions shall not be subject to the VOM emissions reductions requirement specified in 35 Ill. Adm. Code 205.400(c) or (e) as long as such emission unit continues to use such BAT [35 Ill. Adm. Code 205.405(b)].

The source has demonstrated in its ERMS application and the Illinois EPA has determined that the following emission units qualify for exclusion from further reductions because these emission units use BAT for controlling VOM emissions as indicated above [35 Ill. Adm. Code 205.405(b) and (c)]:

None

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