

FINAL DRAFT/PROPOSED CAAPP PERMIT  
Quality Metal Finishing Co.  
I.D. No.: 141010AAB  
Permit Number: 95110069  
June 2, 2000

217/782-2113

TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT  
and  
TITLE I PERMIT<sup>1</sup>

PERMITTEE

Quality Metal Finishing Company  
Attn: Mario Bortoli  
4th and Walnut Streets  
Byron, IL 61010

<u>Application No.:</u> 95110069	<u>I.D. No.:</u> 141010AAB
<u>Applicant's Designation:</u>	<u>Date Received:</u> January 23, 1995
<u>Operation of:</u> Metal Plating Facility	
<u>Date Issued:</u> TO BE DETERMINED	<u>Expiration Date</u> <sup>2</sup> : DATE
<u>Source Location:</u> 4th and Walnut Streets, Byron, Ogle County	
<u>Responsible Official:</u> Matt Bortoli	

This permit is hereby granted to the above-designated Permittee to OPERATE a Metal Plating Facility, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

If you have any questions concerning this permit, please contact Mangu Patel at 217/782-2113.

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

DES:MJP:jar

cc: Illinois EPA, FOS, Region 2

<sup>1</sup> This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the CAA and regulations promulgated thereunder, including 40 CFR 52.21 - federal PSD and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within this permit.

<sup>2</sup> Except as provided in Condition 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

Quality Metal Finishing Company  
4th and Walnut Streets  
Byron, Illinois 61010  
815/234-2711

I.D. No.: 141010AAB  
Standard Industrial Classification: 3432, Metal Plating Facility

1.2 Owner/Parent Company

Quality Metal Finishing Company  
4th and Walnut Streets  
Byron, Illinois 61010

1.3 Operator

Quality Metal Finishing Company  
4th and Walnut Streets  
Byron, Illinois 61010

Matt Bortoli  
815/234-2711

1.4 General Source Description

Quality Metal Finishing Company is located in Byron, Ogle County, Illinois. The facility manufactures and chrome plates zinc die cast plumbing fixtures. The primary source of pollutants at this facility are remelt pots, zinc holding pots, buffing lines, degreaser, plating lines and boiler. Ancillary emission units at the source have been determined to be insignificant emission sources.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
BAT	Best Available Technology
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CFR	Code of Federal Regulations
Cm	Centimeter
ERMS	Emissions Reduction Market System
HAP	Hazardous Air Pollutant
hr	Hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
Illinois EPA	Illinois Environmental Protection Agency
kW	Kilowatts
LAER	Lowest Achievable Emission Rate
lb	Pound
MACT	Maximum Achievable Control Technology
mmBtu	Million British thermal units
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM <sub>10</sub>	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration
RMP	Risk Management Plan
SO <sub>2</sub>	Sulfur Dioxide
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOM	Volatile Organic Material

### 3.0 INSIGNIFICANT ACTIVITIES

#### 3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

- 3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

Comfort Heating Unit (CHU)  
18 Die Cast Machines D1 Through D17  
Acid Storage Room

- 3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

Cyanide Room Exhaust CN 1  
Maintenance Welding Operations  
Grinding Operation

- 3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a)(4)].

Die casting machines where a metal or plastic is formed under pressure in a die [35 IAC 201.210(a)(12)].

Storage tanks of organic liquids with a capacity of less than 10,000 gallons and an annual throughput of

less than 100,000 gallons per year, provided the storage tank is not used for the storage of gasoline or any material listed as a HAP pursuant to Section 112(b) of the CAA [35 IAC 201.210(a)(10)].

Storage tanks of any size containing virgin or re-refined distillate oil, hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuel oils [35 IAC 201.210(a)(11)].

Storage tanks of any size containing exclusively soaps, detergents, surfactants, glycerin, waxes, vegetable oils, greases, animal fats, sweeteners, corn syrup, aqueous salt solutions, or aqueous caustic solutions, provided an organic solvent has not been mixed with such materials [35 IAC 201.210(a)(17)].

3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

### 3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.

3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.

3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour

or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

### 3.3 Addition of Insignificant Activities

- 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).
- 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.
- 3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Plant Unit Number	Source Description	Date Constructed	Emission Control Equipment
01	PL-1	Plating Line #1	1996	Surface Tension
	PL-2	Plating Line #2	1972, Modified in 1994	Surface Tension
	PL-3	Replate Line #3	1972, Modified in 1994	Surface Tension
02	DG	Detrex Vapor Degreaser	1972	None
03	B-1	8 Straight line and 4 Finish Goods Buffing Units	1958	Collector #1
	B-2	11 Hand and 6 Chain Buffing Units	1966	Collector #2
	B-3	12 Chain Buffing Units	1966	Collector #3
04	RM-1	Remelt Furnace-1	1969	None
	RM-2	Remelt Furnace-2	1974	None
	RM-3	Remelt Furnace-3	1979	None
	RM-4	Remelt Furnace-4	1979	None
	RM-5	Remelt Furnace-5	1979	None
	ZH-1 thru ZH-18	18 Zinc Holding Pots	1972 and 1995	None
05	DRY-1	Sludge Dryer	1994	Scrubber
06	BLR-1	Gas-Fired Boiler Eclipse	1972	None
	BLR-2	Gas-Fired Boiler Superior	1997	None

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of HAPs.

5.2 Applicable Regulations

5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.

5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:

a. 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 overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

Compliance with this requirement is considered to be assured by the inherent nature of operations at this source, as demonstrated by historical operation.

b. 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 the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

5.2.3 The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
- 5.2.4 Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40 CFR Part 68, then the owner or operator shall submit [40 CFR 68.215(a)(2)(i) and (ii)]:
- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
  - b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.
- 5.2.5
- a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.
  - b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

5.2.6 Episode Action Plan

- a. If the source is required to have an episode action plan pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.
- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.
- c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.
- d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:
  - i. Illinois EPA, Compliance Section; and
  - ii. For sources located in Cook County and outside of the city of Chicago: Cook County Department of Environmental Control; or
  - iii. For sources located within the city of Chicago: Chicago Department of Environmental Control.

5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	85.71
Sulfur Dioxide (SO <sub>2</sub> )	0.13
Particulate Matter (PM)	28.43
Nitrogen Oxides (NO <sub>x</sub> )	23.30
HAP, not included in VOM or PM	----
TOTAL	137.57

5.5.2 Emissions of Hazardous Air Pollutants

Source-wide emission limitations for HAPs as listed in Section 112(b) of the CAA are not set. This source is considered to be a major source of HAPs.

5.5.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to either the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, Illinois EPA rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

## 5.6 General Recordkeeping Requirements

### 5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

### 5.6.2 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

## 5.7 General Reporting Requirements

### 5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

### 5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 should contain emissions information for the previous calendar year.

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5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and compliance procedures in Section 7 (Unit Specific Conditions) of this permit.

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6.0 [NOT APPLICABLE TO THIS PERMIT]

7.0 UNIT SPECIFIC CONDITIONS

7.1 Unit 01: Decorative Chrome Plating Lines #1, #2 and #3.

7.1.1 Description

The plating lines apply a decorative chrome finish to the parts utilizing a chromic acid solution. First the parts are washed in an alkaline solution and acid bath. They are then adequately rinsed prior to being introduced into the copper strike tank. A copper finish is then applied, followed by an electro-clean and an acid bath and then a nickel finish. Finally a chrome finish is applied to the part. The part is rinsed and then sent to the packaging department for inspection. If a part fails inspection it is sent to the re-plate line and re plated. This line strips the chrome plating and then applies a new chrome finish.

The plating racks are periodically sent through the rack strip tanks to remove unwanted metal finishes.

Chrome plating tanks are controlled by surface tension and mist eliminator. However, only surface tension is used for compliance determination.

7.1.2 List of Emission Units and Pollution Control Method

Emission Unit	Description	Emission Control Method
PL-1	Decorative Chrome Plating Line #1	Surface Tension
PL-2	Decorative Chrome Plating Line #2	Surface Tension
PL-3	Decorative Chrome Re-Plating Line #3	Surface Tension

7.1.3 Applicable Regulations

- a. The "affected chrome plating line" for the purpose of these unit specific conditions, is each piece of equipment as listed in condition 7.1.2.
- b. Chrome plating emission units are subject to 40 CFR Parts 9 and 63, National Emission standards for

chromium emissions from hard and decorative chromium electroplating and chromium anodizing tanks.

- c. Each affected chrome plating line at the source is subject to 35 IAC 212.321(a), which requires that:
  - i. 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, 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 subsection (c) of 35 IAC 212.321 (see also Attachment 1) [35 IAC 212.321(a)].

7.1.4 Non-Applicability of Regulations of Concern

None

7.1.5 Operational and Work Practices

- a. Pursuant to 40 CFR 63.342(f)(3)(i)(C), the Permittee shall implement the work practice requirements for chrome decorative electroplating tanks(s). The work practice standard shall address at least the following:
  - i. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall operate and maintain any affected source, including associated air pollution control devices and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the operation and maintenance plan.
  - ii. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.
  - iii. Operation and maintenance requirements established pursuant to section 112 of the Act

are enforceable independent of emissions limitations or other requirements in relevant standards.

- iv. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Illinois EPA, which may include, but is not limited to, monitoring results; review of the operation and maintenance plan, procedures, and records; and inspection of the source.
- b. Pursuant to 40 CFR 63.342(f)(3), the Permittee shall implement an operation and maintenance (O & M) Plan.
  - i. Description of the fume suppressant with wetting agent in use.
  - ii. A checklist to document the operation and maintenance of the fume suppressant with wetting agent.
  - iii. Procedure to follow to ensure that fume suppressant with wetting agent malfunctions due to poor maintenance or other preventable conditions do not occur.
  - iv. Procedure for identifying malfunctions and for implementing corrective actions.
  - v. The O & M plan shall incorporate proposed work practice standards. These proposed work practice standards shall be submitted to the Illinois EPA for approval as part of the submittal required under 40 CFR 63.343(d).
  - vi. The plan shall specify procedures to be followed to ensure that fume suppressant with wetting agent malfunctions due to poor maintenance or other preventable conditions do not occur.
  - vii. The plan shall include a systematic procedure for identifying malfunctions of process equipment, add-on air pollution control devices (if any), and process and control

system monitoring equipment and for implementing corrective actions to address such malfunctions.

- viii. If the operation and maintenance plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the operation and maintenance plan within 45 days after such an event occurs. The revised plan shall include procedures for operating and maintaining the process equipment, add-on air pollution control device, or monitoring equipment during similar malfunction events, and a program for corrective action for such events.
- ix. If actions taken by the owner or operator during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan, the owner or operator shall record the actions taken for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the owner or operator makes alternative reporting arrangements, in advance, with the Illinois EPA.
- x. The owner or operator shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Illinois EPA for the life of the affected source or until the source is no longer subject to the provisions of this subpart. In addition, if the operation and maintenance plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the operation and maintenance plan on record to be made available for inspection, upon request, by the Illinois EPA for a period of 5 years after each revision to the plan.

- c. The Permittee may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, provided the alternative plans meet the requirements of this section.

#### 7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source-wide emission limitations in Condition 5.5, the affected chrome plating line is subject to the following:

- a. Decorative chromium electroplating tank(s) using a fume suppressant containing a wetting agent shall not exceed 45 dynes/cm of surface tension pursuant to 40 CFR 63.342(d)(2).

This limit is based on Maximum Achievable Control Technology (MACT) control performance standard for decorative chromium electroplating tank(s). Compliance with this limit shall be determined from initial performance testing and ongoing compliance monitoring requirements, as required by conditions of this permit.

- b. The Permittee shall operate the fume suppressant wetting agent at all times during the operation of decorative electroplating tank(s).

Emission limits for PM is not set for the affected chrome plating line as potential to emit in the absence of permit limit is less than the significant and major source thresholds for the pollutant pursuant to Title I of the CAA, specifically 40 CFR 52.21, Prevention of Significant Deterioration (PSD).

#### 7.1.7 Testing Requirements

- a. Surface tension of decorative chromium electroplating tank(s) shall be measured to demonstrate initial compliance pursuant to 40 CFR 63.343(b), during conditions which are representative of maximum emissions i.e., at maximum rated rectifier capacity of tank(s).

- b. USEPA Method 306B shall be used for measuring surface tension, unless another method is approved by the Illinois EPA. Refer to 40 CFR 63, Appendix A, for USEPA test methods.
- c. During testing, the site-specific "operating parameter value", i.e., surface tension will be established to demonstrate continuous compliance, pursuant to 40 CFR 63.343(c)(5). Minimum surface tension can be established from the three compliant test runs. A minimum surface tension of 45 dynes/cm can be used instead of determining minimum surface tension during the compliant test runs.
- d. The Illinois EPA may waive the initial performance test as described in Condition 5, if the Permittee meet the following criteria.
  - i. Decorative chromium electroplating tank that use a wetting agent and limit the surface tension of the bath to a maximum of 45 dynes/cm.

#### 7.1.8 Monitoring Requirements

- a. The owner or operator of an affected source shall monitor the surface tension of the electroplating or anodizing bath. Operation of the affected source at a surface tension greater than the value established during the performance test, or greater than 45 dynes/cm if the owner or operator is using this value in accordance with 40 CFR 63.343 (5)(i) shall constitute noncompliance with the standards. The surface tension shall be monitored according to the following schedule:
  - i. The surface tension shall be measured once every 4 hours during operation of the tank with stalagmometer or a tensiometer as specified in Method 306B, Appendix A of 40 CFR Part 63 Subpart N.
  - ii. The time between monitoring can be increased if there have been no exceedances. The surface tension shall be measured once every 4 hours of tank operation for the first 40 hours

of tank operation after the compliance date. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by this subpart is once every 40 hours of tank operation.

- iii. Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in paragraph 7.1.8(a)(ii). For example, if an owner or operator had been monitoring an affected source once every 40 hours and an exceedance occurs, subsequent monitoring would take place once every 4 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation, monitoring can occur once every 8 hours of tank operation. Once an exceedance does not occur for 40 hours of tank operation on this schedule, monitoring can occur once every 40 hours of tank operation.

#### 7.1.9 Record keeping Requirements

- a. The Permittee shall maintain records of the following items for chrome plating lines to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

- i. The Permittee shall keep the following records, pursuant to 40 CFR 63.343(5)(ii), to demonstrate continuous compliance monitoring requirement:

Records of monitoring data required by 40 CFR 63.343(5)(ii) shall be kept to demonstrate continuous compliance.

- A. Plating bath surface tension, determined every four hours except as provided below.

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- B. If there are no exceedances of the minimum plating bath surface tension after 40 hours of operation, then the monitoring frequency can be decreased to once every 8 hours. If there are no exceedances for the next 40 hours, then the frequency can be decreased to once every 40 hours. If an exceedance occurs after that, then the initial monitoring schedule (every four hours) must be resumed.
- C. Records of all maintenance performed on the affected source, the fume suppressant wetting agent and monitoring equipment.
- D. Records of the occurrence, duration, and cause (if known) of each malfunction of process, fume suppressant wetting agent and monitoring equipment.
- E. Records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan.
- F. Records, which may take the form of checklists, necessary to demonstrate consistency with the operation and maintenance plan required by 40 CFR 63.342(f)(3).
- G. Test reports documenting results of all performance tests, if performance test were conducted.
- H. All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance with the special compliance procedures of 40 CFR 63.344(e).
- I. Records of monitoring data required by 40 CFR 63.343 that are used to demonstrate compliance with the standard including the date and time the data are collected.

- J. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during malfunction of the process, mist eliminator or monitoring equipment.
- K. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during periods other than malfunction of the subject chrome plating tanks and associated control devices.
- L. The total process operating time of the affected chrome plating tank(s) during the reporting period.
- M. Records of the date and time that fume suppressant wetting agents are added to the bath.
- N. All documentation supporting the notifications and reports required by 40 CFR 63.9, 63.10 and 63.347.
- O. All records shall be maintained for a period of five years, pursuant to 63.10(b)(1).

#### 7.1.10 Reporting Requirements

The Permittee shall comply with the following reporting requirements; pursuant to 40 CFR 63.347:

- a. The Permittee must submit initial notification of construction/reconstruction to the Illinois EPA including the date of construction or reconstruction within 30 calendar days after the commencement date.
- b. The initial notification shall contain the following:

- i. The name, title, and address of the owner or operator.
- ii. The address (i.e., physical location) of each affected source.
- iii. A statement that Subpart N is the basis for this notification.
- iv. Identification of the applicable emission limitation and compliance date for each affected source.
- v. A brief description of each affected source, including the type of process operation performed.
- vi. The maximum cumulative rectifier capacity.
- vii. A statement of whether the affected source is located at a major source or an area source as defined in 40 CFR 63.2 of Subpart A.
  - A. A notification of the date when construction or reconstruction was commenced, shall be submitted simultaneously with the notification of construction or reconstruction.
  - B. A notification of the date when construction or reconstruction was commenced, shall be submitted no later than 30 calendar days of construction or reconstruction commencement date.
  - C. A notification of the actual date of startup of the source shall be submitted within 30 calendar days after such date.
- c. i. The Permittee shall notify the Illinois EPA in writing of intent to conduct a performance test (if conducted) at least 60 calendar days before the test is scheduled to begin to allow the Illinois EPA to have an observer present during the test, pursuant to 40 CFR 63.347(d).

Observation of the performance test by the Illinois EPA is optional.

- ii. If the scheduled date for the test is changed for unforeseen reason, the Permittee shall inform the Illinois EPA within 5 calendar days of the originally scheduled test date and must specify the date of the rescheduled test.
- d. The Permittee shall submit to the Illinois EPA a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the affected source has complied with this Subpart, pursuant to 40 CFR 63.347(e). The notification shall list the following:
- i. The applicable emission limitation and the methods that were used to determine compliance with this limitation.
  - ii. The performance test report documenting the results of the performance test, which contains the elements required by 40 CFR 63.344(a), including measurements and calculations to support the special compliance provisions of 40 CFR 63.344(e) if these are being followed.
  - iii. Records of projected rectifier capacity for the first 12-month period of tank operation shall be used.
  - iv. A statement by the owner or operator of the affected source as to whether the source has complied with the provisions of this Subpart.
- e. The notification of compliance status and reports of performance test results (if conducted) shall be submitted to the Illinois EPA no later than 90 calendar days following completion of the compliance demonstration/performance test.
- f. The Permittee shall prepare an ongoing compliance status report every year and retained on site, and made available to the Illinois EPA upon request.

- g. The ongoing compliance report shall contain the following:
- i. The company name and address of the affected source.
  - ii. An identification of the operating parameter that is monitored for compliance determination.
  - iii. The relevant emission limitation (i.e., surface tension in dynes/cm for the source, and the operating parameter value, or range of values, that correspond to compliance with this emission limitation as specified in the notification of compliance status.
  - iv. The beginning and ending dates of the reporting period.
  - v. A description of the type of process performed in the source.
  - vi. The total operating time of the affected source during the reporting period.
  - vii. A certification by a responsible official that the work practice standards followed in accordance with the operation and maintenance plan for the source.
  - viii. If the operation and maintenance plan was not followed, an explanation of the reasons for not following the provisions, an assessment of whether any parameter monitoring exceedances are believed to have occurred, and a copy of the report(s) documenting that the operation and maintenance plan was not followed.
  - ix. A description of any changes in monitoring processes, or controls since the last reporting period.
  - x. The name, title, and signature of the responsible official who is certifying the accuracy of the report.

- xi. The date of the report.
- h. The Permittee shall report the results for each monitoring device. However, when one monitoring device is used as a backup for the primary monitoring device, the Permittee shall only report the results from the monitoring device used to meet the monitoring requirements. If both devices are used to meet these requirements, then the owner or operator shall report the results from each monitoring device for the relevant compliance period.
- i. Annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous year.
- j. Report of Deviation  

Report of any deviation from the applicable permit requirements of Condition 5.2.2 shall be reported to the Illinois EPA within 30 days of such occurrence. The report shall include the identity of the requirements for which a deviation occurred, a description of the deviation, its probable cause, and any corrective actions or preventive measures taken [39.5(7)(f)(ii) of the Act].
- k. At least 30 calendar days before changing the method of compliance for an affected decorative chrome plating line, the applicable emission factor indicated in Condition 7.1.6, the Permittee shall certify to the Illinois EPA that the decorative chrome plating line will be in compliance with the applicable limitation of Condition 7.1.6 consistent with the requirements of the compliance certification reports of Condition 9.8.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical and operational change with respect to the affected chrome plating lines operation without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any

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activity constituting construction or modification of the  
source, as defined in 35 IAC 201.102:

None

#### 7.1.12 Compliance Procedures

The testing, monitoring, recordkeeping and reporting  
requirements of section 7.1 shall be used to determine  
compliance.

7.2 Unit 02: Detrex Vapor Degreaser

7.2.1 Description

The facility operates a Vapor degreaser (solvent cleaning machine) to clean metal parts. The unit is equipped with a cross-rod configuration and cleans multiple batch loads simultaneously and is manually loaded it is a batch cleaning machine (40 CFR 63.461 Definitions). The unit solvent/air interface area is greater than 13 square feet. Trichloroethylene that is classified as both VOM and HAP is currently used as the cleaning solvent. Emissions of VOM and HAP are the result of solvent evaporation

7.2.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control
DG	Detrex Vapor Degreaser	Freeboard Refrigeration Device, Idling Emission Limit

7.2.3 Applicable Regulations

- a. An "affected vapor degreaser" for the purpose of these unit specific conditions, is each piece of equipment as listed in condition 7.2.2.
- b. The affected vapor degreaser is subject to the NESHAP for Halogenated Solvent Cleaning, 40 CFR 63 Subparts A and T, because it uses a solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.

Pursuant to 40 CFR 63.463:

- i. The vapor cleaning machine shall have an idling and downtime mode cover that may be readily opened or closed, that completely covers the cleaning machine openings when in place, and is free of cracks, holes, and other defects. The cover shall be in place during the idling mode, and during the downtime mode unless either the solvent has been removed

from the machine or maintenance or monitoring is being performed that requires the cover to not be in place [40 CFR 63.463 (a)(1)(i) and (d)(1)(i)].

- ii. The vapor cleaning machine shall have a freeboard ratio of 0.75 or greater [40 CFR 63.463 (a)(2)].
- iii. The vapor cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts [40 CFR 63.463 (a)(3)].
- iv. The cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coil [40 CFR 63.463 (a)(4)].
- v. The vapor cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser [40 CFR 63.463 (a)(5)].
- vi. Each vapor cleaning machine shall have a primary condenser [40 CFR 63.463 (a)(6)].
- vii. The vapor cleaning machine shall achieve and maintain an idling emission limit of 0.22 kilograms per hour per square meter (0.045 pounds per hour per square foot) of solvent/air interface area as determined using the procedures in 40 CFR 63.465 (a) and appendix A of 40 CFR part 63 [40 CFR 63.463 (b)(2)(ii)].
- viii. The Permittee shall ensure that the cover of the vapor cleaning machine is in place whenever parts are not in the vapor cleaning machine and completely covers the cleaning machine openings when in place. The Permittee shall also ensure that the idling-mode cover

is maintained free of cracks, holes, and other defects [40 CFR 63.463 (e)(2)(iv)(A) and (B)].

c. The Vapor degreaser is subject to 35 IAC 215.184 which provides that:

- i. The degreaser is equipped with a drying tunnel, rotating (tumbling) basket or other equipment sufficient to prevent cleaned parts from carrying out solvent liquid or vapor;
- ii. The degreaser shall be equipped with the following switches:
  - A. A device which shuts off the sump heat source if the amount of condenser coolant is not sufficient to maintain the designed vapor level;
  - B. A device which shuts off the spray pump or the conveyor if the vapor level drops more than 10 cm (4 in) below the bottom condenser coil; and
  - C. A device which shuts off the sump heat source when the vapor level exceeds the design level;
- iii. The degreaser is equipped with openings for entrances and exits that silhouette workloads so that the average clearance between the parts and the edge of the degreaser opening is less than 10 cm (4 in) or less than 10 percent of the width of the opening;
- iv. The degreaser is equipped with downtime covers for closing off entrances and exits when the degreaser is shut down; and
- v. The degreaser is equipped with one of the following control devices, if the air/vapor interface is larger than 2.0 square meters (21.6 square feet):
  - A. A carbon adsorption system with ventilation greater than or equal to 15

cubic meters per minute per square meter  
(50 cubic feet per minute per square foot)  
of air/vapor area (when downtime covers  
are open, and exhausting less than 25 ppm  
of solvent by volume averaged over a  
complete adsorption cycle; or

- B. Any other equipment or system of equivalent emission control as approved by the Illinois EPA. Such equipment or system may include a refrigerated chiller.

#### 7.2.4 Non-Applicability of Regulations of Concern

The affected vapor degreaser using trichloroethylene as a cleaning solvent is not subject to 35 IAC 215.301, unless an odor nuisance exists, because trichloroethylene is not considered a photochemically reactive material.

#### 7.2.5 Operational and Production Limits and Work Practices

- a. The Permittee shall meet all of the following required work and operational practices specified below:
  - i. Cover(s) to the solvent cleaning machine shall be in place during the idling mode, and during the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover(s) to not be in place [40 CFR 63.463 (d)(1)(i)].
  - ii. The parts baskets or the parts being cleaned in an open-top batch vapor cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts basket or parts are introduced at a speed of 0.9 meters per minute (3 feet per minute) or less [40 CFR 63.463 (d)(2)].
  - iii. Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine) [40 CFR 63.463 (d)(3)].

- iv. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from any solvent cleaning machine [40 CFR 63.463 (d)(4)].
- v. Parts basket or parts shall not be removed from the solvent cleaning machine until dripping has stopped [40 CFR 63.463 (d)(5)].
- vi. During startup of the vapor cleaning machine, the primary condenser shall be turned on before the sump heater [40 CFR 63.463 (d)(6)].
- vii. During shutdown of the vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off [40 CFR 63.463 (d)(7)].
- viii. When solvent is added or drained from the solvent cleaning machine, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface [40 CFR 63.463 (d)(8)].
- ix. The Permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures as provided in 40 CFR 63 appendix B, if requested during an inspection by the Illinois EPA [40 CFR 63.463 (d)(10)].
- x. Waste solvent, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container [40 CFR 63.463 (d)(11)].
- xi. Sponges, fabric, wood, and paper products shall not be cleaned [40 CFR 63.463 (d)(12)].

- xiii. No person shall operate a conveyORIZED degreaser unless: [35 IAC 218.184 (a)]:
- A. Exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of area of loading and unloading opening is not used, unless necessary to meet the requirements of the Occupational Safety and Health Act (29 U.S.C. Section 651 et seq.)
  - B. Solvent carryout emissions are minimized by:  
  
Racking parts for best drainage; and  
maintaining the vertical conveyor speed at less than 3.3 m/min (11 ft/min);
  - C. Waste solvent is stored in covered containers only and not disposed of in such a manner that more than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;
  - D. Solvent leaks are repaired immediately;
  - E. Water is not visually detectable in solvent exiting from the water separator; and
  - F. Downtime covers are placed over entrances and exits of conveyORIZED degreasers immediately after the conveyors and exhausts are shut down and not removed until just before startup.

#### 7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the Vapor degreaser is subject to the following:

N/A

7.2.7 Testing Requirements

Upon reasonable request by the Illinois EPA, compliance with an idling emission limit standard in 40CFR 63.463(b)(2)(ii) shall determine idling emission rate of the solvent cleaning machine using Reference Method 307 in 40 CFR Subpart A.

7.2.8 Monitoring Requirements

- a. The Permittee using a freeboard refrigeration device or superheated vapor system to comply with 40 CFR 63.463 shall conduct monitoring and record the results on a weekly basis for the control devices, as follows [40 CFR 63.466 (a)]:
  - i. For a freeboard refrigeration device, the owner or operator shall use a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected solvent cleaning machine to demonstrate compliance with Conditions 5.5.1 and 7.2.3, pursuant to Section 39.5(7)(b) of the Act:

- a. The Permittee complying with the provisions of 40 CFR 63.463 shall maintain records in written or electronic form as specified below for the lifetime of the each solvent cleaning machine [40 CFR 63.467 (a)]:
  - i. Owner's manuals, or if not available, written maintenance and operating procedures, for the solvent cleaning machine and control equipment.
  - ii. The date of installation for the solvent cleaning machine and all of its control devices. If the exact date for installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993,

or after November 29, 1993, may be substituted.

- iii. Records of the halogenated HAP solvent content for each solvent used in a solvent cleaning machine.
- b. The Permittee shall maintain records as specified below either in electronic or written form for a period of 5 years [40 CFR 63.467 (b)]:
- i. The results of control device (freeboard refrigeration device) monitoring required under 40 CFR 63.466 (see also Condition 7.2.8).
  - ii. Information on the actions taken to comply with 40 CFR 63.463(e) (see also Condition 7.3.5(e)). This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.
  - iii. Estimates of annual solvent consumption for the solvent cleaning machine.

#### 7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected solvent cleaning machine with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

- a. The Permittee complying with the provisions of 40 CFR 63.463 shall submit an annual report by February 1 of the year following the one for which the reporting is being made. This report shall include the requirements specified below [40 CFR 63.468 (f)]:
- i. A signed statement from the facility owner or his designee stating that, "All operators of

solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required in 40 CFR 63.463(d)(10)."

- ii. An estimate of solvent consumption for each solvent cleaning machine during the reporting period.
- b. If the requirements of 40 CFR 63.463(e)(2)(I) are not met, the Permittee shall determine whether an exceedance has occurred using the following criteria [40 CFR 63.463 (e)(3)]:
- i. An exceedance has occurred if the requirements of 40 CFR 63.463 (e)(2)(i) have not been met and are not corrected within 15 days of detection. Adjustments or repairs shall be made to the solvent cleaning system or control device to reestablish required levels. The parameter must be remeasured immediately upon adjustment or repair and demonstrated to be within required limits.
  - ii. The Permittee shall report all exceedances and all corrections and adjustments made to avoid an exceedance as specified in 40 CFR 63.468(h).
- c. The Permittee shall submit an exceedance report to the Illinois EPA except when, the Illinois EPA determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source or, an exceedance occurs. Once an exceedance has occurred the Permittee shall follow a quarterly reporting format until a request to reduce reporting frequency under 40 CFR 63.468 is approved. Exceedance reports shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. The exceedance report shall include the following [40 CFR 63.468 (h)]:
- i. Information on the actions taken to comply with 40 CFR 63.463 (e) and (f). This information shall include records of written

or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.

- ii. If an exceedance has occurred, the reason for the exceedance and a description of the actions taken.
- iii. If no exceedances of a parameter have occurred, or a piece of equipment has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

d. Annual Emissions Report

- i. Annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous year.

e. Report of Deviation

Report of any deviation from the applicable permit requirements of Condition 5.2.2 shall be reported to the Illinois EPA within 30 days of such occurrence. The report shall include the identity of the requirements for which a deviation occurred, a description of the deviation, its probable cause, and any corrective actions or preventive measures taken [39.5(7)(f)(ii) of the Act].

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.2.12 Compliance Procedures

- a. For determination of compliance with the limits of this permit, solvent usage shall be determined by the following equation:

$$U = V - (W \times P)$$

Where:

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- U = Solvent usage for compliance determinations (gallons)
- V = Virgin solvent<sup>a</sup> added to the degreasers (gallons), as determined by daily addition log sheets.
- W = Waste solvent<sup>b</sup> removed from the degreasers and sent off-site for reclamation or disposal, as determined by monthly manifests.
- P = Percent concentration of solvent in waste, as determined by analysis/testing<sup>c</sup>.

<sup>a</sup> For purposes of this permit, virgin solvent is defined as unused solvent.

<sup>b</sup> For purpose of this permit, waste solvent is defined as used solvent.

<sup>c</sup> The percent concentration of solvent in waste (P) shall be determined in accordance with USEPA Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW-846), Test Method 8260.

- b. Compliance with the organic material emission limits shall be calculated using the solvent density as specified in the Material Safety Data Sheet, and the solvent usage (U) per month, as follows:

Emission = Solvent Usage (gallon/month) x Solvent Density (lb/gallon)

7.3 Unit 03: Buffing Units

7.3.1 Description

Buffing and polishing of die-cast parts is performed with automated chain buffing units, automated straight buffing units and hand buffing units.

7.3.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
B-1	8 Straight Line and 4 Finish Goods Buffing Units	Collector #1
B-2	11 Hand and 6 Chain Buffing Units	Collector #2
B-3	12 Chain Buffing Units	Collector #3

7.3.3 Applicability Provisions and Applicable Regulations

- a. An "affected buffing unit" for the purpose of these unit specific conditions, is each piece of equipment as listed in Condition 7.3.2.
- b. 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 overhead at a point beyond the property line of the source, pursuant to 35 IAC 212.301.
- c. Each affected buffing unit is subject to the emission limits identified in condition 5.2.2(b)

7.3.4 Non-Applicable Regulations of Concern

None

7.3.5 Operational and Production Limits and Work Practices

None

7.3.6 Emission Limitations

In addition to Condition 5.2.2 and the source-wide limitations in Condition 5.5, the affected buffing unit is subject to the following:

None

7.3.7 Testing Requirements

None

7.3.8 Monitoring Requirements

The Permittee shall visually inspect the baghouse and check for air flow drop on a regular basis in order to ensure proper operation of the baghouse and the need for replacement.

7.3.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected buffing units to demonstrate compliance with Conditions of this section, pursuant to Section 39.5(7)(b) of the Act:

- i. Results of baghouse inspections and dates of replacements made.

7.3.10 Reporting Requirements

None

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.3.12 Compliance Procedures

- a. Compliance provisions addressing condition 7.3.3 are not set by this permit as compliance is assumed to be achieved by the normal work practices and maintenance activities inherent in operation of each dust collector.

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- b. Compliance with the emission limits in conditions 5.5 shall be based on the recordkeeping requirements in Condition 7.3.9 and the emission factors and formulas listed below:

PM Emissions from each affected buffing unit =  
Emission rate 0.1 lb/hour x Hours of operation.

The controlled emission rate 0.1 lb/hour is from the application.

7.4 Unit 04: Zinc remelt furnaces and zinc holding pots

7.4.1 Description

Natural gas fired small furnaces (pots) are used for remelting zinc.

7.4.2 List of Emission Units and Pollution Control Equipment

Emission Unit*	Description
RM-1 thru RM-5	Remelt Furnaces 1 thru 5 are Natural Gas-Fired (2 mmBtu/hr Each)
ZH-1 thru ZH-18	Eighteen (18) Zinc Holding Pots, Natural Gas-Fired (6 units 0.05 mmBtu/hr Each and 12 Units 1.5 mmBtu/hr Each)

\* All emission units were built prior to 1972, except holding pots ZH-9,ZH-14 and ZH-15 which were installed in 1995.

7.4.3 Applicability Provisions and Applicable Regulations

a. An "affected remelt furnace or holding pot" for the purpose of these unit specific conditions, is each piece of equipment as listed in condition 7.4.2.

b. Each affected furnace or holding pot at the source is subject to 35 IAC 212.321(a), which requires that:

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, 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 subsection (c) of 35 IAC 212.321 (see also Attachment 1) [35 IAC 212.321(a)].

c. Each affected remelt furnace or holding pot is subject to the emission limits identified in condition 5.2.2(b)

7.4.4 Non-Applicable Regulations of Concern

- a. The affected remelt furnace or holding pot is not subject to 35 IAC 216.121, emissions of carbon monoxide from fuel combustion emission units, because the affected remelt furnace or holding pot is not by definition a fuel combustion emission unit.
- b. The affected remelt furnace or holding pot is not subject to 35 IAC 217.321, emissions of nitrogen oxides from new fuel combustion emission sources, because the affected remelt furnace or holding pot is not by definition a fuel combustion emission unit.

7.4.5 Operational and Production Limits and Work Practices

None

7.4.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5, the affected remelt furnace or holding pot is subject to the following:

- a. Emissions and operation of the zinc holding pots shall not exceed the following limits:

Zinc Holding Pot	Process Weight Rate		PM Emissions	
	(ton/mo)	(ton/yr)	(ton/mo)	(ton/yr)
ZH-9	146	1,752	0.402	4.82
ZH-14	146	1,752	0.402	4.82
ZH-15	146	1,752	0.402	4.82

These limits are based on the process weight rate and allowable emission limitation as per 35 IAC 212.321 (T1).

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 (running 12 month total) [T1].

The above limitations were established in permit 95080130, pursuant to Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and 40 CFR 52.21, Prevention of

Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to these rules [T1].

7.4.7 Testing Requirements

None

7.4.8 Monitoring Requirements

None

7.4.9 Recordkeeping Requirements

- a. Process weight rate for the zinc holding pots ZH-9, ZH-14 and ZH-15 (ton/month, ton/year).
- b. Fuel Usage (mmscf/yr).

7.4.10 Reporting Requirements

None

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.4.12 Compliance Procedures

- a. Compliance with the emission limits in conditions 5.5 and 7.4.6 shall be based on the recordkeeping requirements in Condition 7.4.9 and the emission factors and formulas listed below:
  - i. PM Emissions from the affected remelt furnace or holding pot = Emission rate 0.124 lb/hr/unit x Hours of operation.

ii. Emissions from fuel combustion:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lbs/10<sup>6</sup> scf)</u>
NO <sub>x</sub>	100
PM	7.6
VOM	5.5

The emission factors for natural gas fired units are from Tables 1.4-1 and 1.4-2, AP-42 Fifth Edition, Volume 1, Supplement D, March, 1998.

Emissions (ton/yr) = (natural gas usage, mmcf/yr) x (the applicable emission factor, lb/mmcf) x (ton/2000 lb)

7.5 Unit.05: Sludge Dryer

7.5.1 Description

Water is removed via evaporation from sludge generated by wastewater pretreatment. Natural gas is used in combustion.

7.5.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Dry-1	Sludge Dryer Natural Gas 2 mmBtu/Hr	Scrubber

7.5.3 Applicability Provisions and Applicable Regulations

a. An "affected sludge dryer" for the purpose of these unit specific conditions, is each piece of equipment as listed in condition 7.5.2.

b. Each affected sludge dryer at the source is subject to 35 IAC 212.321(a), which requires that:

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, 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 subsection (c) of 35 IAC 212.321 (see also Attachment 1) [35 IAC 212.321(a)].

c. Each affected sludge dryer is subject to the emission limits identified in condition 5.2.2(b)

7.5.4 Non-Applicable Regulations of Concern

a. The affected sludge dryer is not subject to 35 IAC 216.121, emissions of carbon monoxide from fuel combustion emission units, because the affected sludge

dryer is not by definition a fuel combustion emission unit.

- b. The affected sludge dryer is not subject to 35 IAC 217.321, emissions of nitrogen oxides from new fuel combustion emission sources, because the affected sludge dryer is not by definition a fuel combustion emission unit.

7.5.5 Operational and Production Limits and Work Practices

None

7.5.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5, the affected sludge dryer is subject to the following:

- a. This permit is issued based on negligible emissions of particulate matter from the affected sludge dryer. For this purpose, emissions shall not exceed nominal emission rates of 0.05 lb/hour and 0.22 ton/year. (T1).

The above limitations were established in construction permit No.94070061, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

7.5.7 Testing Requirements

None

7.5.8 Monitoring Requirements

None

7.5.9 Recordkeeping Requirements

In addition to the records required by condition 5.6, the Permittee shall maintain records of the following items for the affected sludge dryer to demonstrate compliance with conditions 5.5 and 7.5.6, pursuant to section 39.5 (7) (b) of the Act:

- a. Hours of operation of the affected sludge dryer.
- b. Fuel Usage (mmscf/yr).

7.5.10 Reporting Requirements

None

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.5.12 Compliance Procedures

- a. Compliance with the emission limits in condition 5.5 and 7.5.6 shall be based on the recordkeeping requirements in Condition 7.5.9 and the emission factors and formulas listed below:
  - i.  $PM \text{ Emissions from the dryer} = \text{Controlled emission rate } 0.05 \text{ lb/hr} \times \text{Hours of operation.}$
  - ii. Emissions from fuel combustion:

<u>Pollutant</u>	<u>Emission Factor</u> <u>lbs/10<sup>6</sup> scf</u>
NO <sub>x</sub>	100
PM	7.6
VOM	5.5

The emission factors for natural gas fired units are from Tables 1.4-1 and 1.4-2, AP-42 Fifth Edition, Volume 1, Supplement D, March, 1998.

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Emissions (ton/yr) = natural gas usage  
(mmcf/yr) x the applicable emission factor  
(lb/mmcf) x (ton/2000 lb)

7.6 Unit 06: Gas-Fired Boilers

7.6.1 Description

The boilers are used to produce steam for heating at the source. The boiler combust natural gas to produce steam for heating.

7.6.2 List of emission equipment and pollution control equipment

Boiler	Natural Gas-Fired Boiler	Date Constructed
BLR-1	Eclipse, 3.6 mmBtu/hr	1972
BLR-2	Superior, 12.6 mmBtu/hr	April, 1997

7.6.3 Applicable Regulations

- a. The "affected boiler" for the purpose of these unit specific conditions is steam-generating unit fired with natural gas. The boiler BLR-2, with a maximum heat input capacity of 100 mmBtu/hr or less, but greater than or equal to 10 mmBtu/hr, and constructed after June 9, 1989 is subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subpart Dc. As of the "date issued" as shown page 1 of this permit, the affected boilers are identified in Condition 7.6.2.
- b. The emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission unit with actual heat input greater than 2.9 MW (10 mmBtu/hr) shall not exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].
- c. The affected boiler is subject to the emission limits identified in Condition 5.2.2(b)

7.6.4 Non-Applicability of Regulations of Concern

- a. The New Source Performance Standard for Small - Industrial - Commercial - Institutional Steam Generating Units, 40 CFR 60, Subpart Dc, applies to units constructed, reconstructed, or modified after June 9, 1989. The affected boiler Eclipse (BLR-1) was

constructed prior to June 9, 1989, therefore, these rules do not apply.

- b. Pursuant to 35 IAC 215.303, fuel combustion emission units are not subject to 35 IAC 215.301, "Use of Organic Material".

7.6.5 Operational and Production Limits and Work Practices

Each affected boiler shall only be fired with natural gas as the fuel.

7.6.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5, the affected boiler is subject to the following:

Emissions from the Superior boiler (BLR-2) shall not exceed the following:

<u>Pollutant</u>	<u>(lbs/hr)</u>	<u>(tons/year)</u>
NO <sub>x</sub>	1.76	7.7
CO	0.44	1.9

These limits are based on maximum firing rate 12.6 mmBtu/hr, maximum hours of operation 8,760 hours/year and standard emission factors (T1).

The above limitations were established in Construction Permit 96120009, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

7.6.7 Testing Requirements

None

7.6.8 Monitoring Requirements

None

7.6.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items which allow to demonstrate compliance with Condition 5.5.1 and 7.6.5 pursuant to Section 39.5 (7) (b) of the Act:

- a. Total natural gas usage for the boiler (mmcf/year), and
- b. The heat content of natural (Btu/ft<sup>3</sup>).

7.6.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with applicable requirements within 30 days pursuant to Section 39.5 (7) (f) (ii) of the Act:

- a. Notification within 60 days of operation of an affected boiler that may not have been in compliance with the opacity limitations in condition 5.2.2(b), with a copy of such record for each incident.

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.6.12 Compliance Procedures

- a. Compliance provisions addressing Condition 7.6.3 are not set by this permit as compliance is assumed to be achieved by the normal work-practices and maintenance activities inherent in operation of natural gas - fired boiler.
- b. Compliance with the emission limits in Condition 5.5 and 7.6.6 from the affected boiler shall be based on the recordkeeping requirements in Condition 7.6.9 and the emission factors and formulas listed below:

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<u>Pollutant</u>	<u>Emission Factor</u> <u>(lbs/mmcf)</u>
NO <sub>x</sub>	100
PM	7.6
VOM	5.5
CO	84

The emission factors for natural gas fired units are from Tables 1.4-1 and 1.4-2, AP-42 Fifth Edition, Volume 1, Supplement D, March, 1998.

Emissions (ton/yr) = natural gas usage, (mmc/yr) x the applicable emission factor, (lb/mmcf) x (ton/2000 lb)

## 8.0 GENERAL PERMIT CONDITIONS

### 8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after \_\_\_\_\_ **{insert public notice start date}** (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

### 8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

### 8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs that have been approved by USEPA.

### 8.4 Operational Flexibility/Anticipated Operating Scenarios

#### 8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as

not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

#### 8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes without applying for or obtaining an amendment to this permit, provided that the changes do not constitute a modification under Title I of the CAA, emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change, and the Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change [Section 39.5(12)(a) of the Act]. This notice shall:

- a. Describe the physical or operational change;
- b. Identify the schedule for implementing the physical or operational change;
- c. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
- d. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
- e. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

#### 8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result

of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

## 8.6 Reporting Requirements

### 8.6.1 Monitoring Reports

A report summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

<u>Monitoring Period</u>	<u>Report Due Date</u>
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

### 8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;

- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

#### 8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

#### 8.6.4 Reporting Addresses

- a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:

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i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency (MC 40)  
Bureau of Air  
Compliance Section  
P.O. Box 19276  
Springfield, Illinois 62794-9276

ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
5415 North University  
Peoria, Illinois 61614

iii. Illinois EPA - Air Permit Section (MC 11)

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Permit Section  
P.O. Box 19506  
Springfield, Illinois 62794-9506

iv. USEPA Region 5 - Air Branch

USEPA (AR - 17J)  
Air & Radiation Division  
77 West Jackson Boulevard  
Chicago, Illinois 60604

- b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].

9.1.2 In particular, this permit does not alter or affect the following:

- a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
- d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or

denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(p)(ii) of the Act]:

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- d. Sample or monitor any substances or parameters at any location:
  - i. At reasonable times, for the purposes of assuring permit compliance; or
  - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source.

9.4 Obligation to Comply With Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].
- b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance

was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.

- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

#### 9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

#### 9.10 Defense to Enforcement Actions

##### 9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

##### 9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:
  - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;

- ii. The permitted source was at the time being properly operated;
  - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
  - iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

#### 9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

#### 9.12 Reopening and Reissuing Permit for Cause

##### 9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

#### 9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and
- d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

#### 9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

#### 9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

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9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(l), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1: Emissions of Particulate Matter from New Process Emission Units

10.1.1 Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972

- 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, 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 subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].
- b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

$$E = A(P)^B$$

Where:

P = Process weight rate; and  
E = Allowable emission rate; and,

- i. Up to process weight rates of 408 Mg/hr (450 ton/hr):

	Metric	English
P	Mg/hr	ton/hr
E	kg/hr	lb/hr
A	1.214	2.54
B	0.534	0.534

- ii. For process weight rate greater than or equal to 408 Mg/hr (450 ton/hr):

	Metric	English
P	Mg/hr	ton/hr
E	kg/hr	lb/hr
A	11.42	24.8



10.2 Attachment 2 - Emissions of Particulate Matter from Existing  
Process Emission Units

10.2.1 Process Emission Units for Which Construction or  
Modification Commenced Prior to After April 14, 1972

- a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].
- b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.322 shall be determined by using the equation [35 IAC 212.322(b)]:

$$E = C + A(P)^B$$

Where:

P = Process weight rate; and  
E = Allowable emission rate; and,

- i. Up to process weight rates up to 27.2 Mg/hr (30 ton/hr):

	Metric	English
P	Mg/hr	ton/hr
E	kg/hr	lb/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

- ii. For process weight rate in excess of 27.2 Mg/hr (30 ton/hr):

	Metric	English
P	Mg/hr	ton/hr
E	kg/hr	lb/hr
A	25.21	55.0
B	0.11	0.11
C	- 18.4	- 40.0

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c. Limits for Process Emission Units for Which  
Construction or Modification Commenced Prior to  
April 14, 1972 [35 IAC 212.322(c)]:

Metric		English	
P	E	P	E
Mg/hr	kg/hr	ton/hr	lb/hr
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.2	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.0	8.7	10.00	19.20
13.0	11.1	15.00	25.20
18.0	13.8	20.00	30.50
23.0	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

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10.3 Attachment 3 - Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Official Title: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

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

MJP:jar

I. INTRODUCTION

This source has applied for a Clean Air Act Permit Program (CAAPP) operating permit for its existing operation. The CAAPP is the program established in Illinois for the operating permits for significant stationary sources required by the federal Clean Air Act, as amended in 1990. The conditions in a CAAPP permit are enforceable by both the Illinois Environmental Protection Agency (Illinois EPA) and the USEPA.

Quality Metal Finishing Company is located in Byron, Ogle County, Illinois. The facility manufactures and chrome plates zinc die cast plumbing fixtures. The primary source of pollutants at this facility are remelt pots, zinc holding pots, buffing lines, degreaser, plating lines and boiler. Ancillary emission units at the source have been determined to be insignificant emission sources.

II. EMISSION UNITS

Significant emission units at this source are as follows:

Emission Unit	Plant Unit Number	Source Description	Date Constructed	Emission Control Equipment
01	PL-1	Plating Line #1	1996	Surface Tension
	PL-2	Plating Line #2	1972, Modified in 1994	Surface Tension
	PL-3	Replate Line #3	1972, Modified in 1994	Surface Tension
02	DG	Detrex Vapor Degreaser	1972	None
03	B-1	8 Straight Line and 4 Finish Goods Buffing Units	1958	Collector #1
	B-2	11 Hand and 6 Chain Buffing Units	1966	Collector #2
	B-3	12 Chain Buffing Units	1966	Collector #3
04	RM-1	Remelt Furnace-1	1969	None
	RM-2	Remelt Furnace-2	1974	None
	RM-3	Remelt Furnace-3	1979	None
	RM-4	Remelt Furnace-4	1979	None
	RM-5	Remelt Furnace-5	1979	None
	ZH-1 thru ZH-18	18 Zinc Holding Pots	1972 and 1995	None
05	DRY-1	Sludge Dryer	1994	Scrubber
06	BLR-1	Gas Fired Boiler -Eclipse	1972	None
	BLR-2	Gas Fired Boiler -Superior	1997	None

III. EMISSIONS

This source is required to have a CAAPP permit since it is a major source of emissions.

For purposes of fees, the source is allowed the following emissions:

Pollutant	Tons/Year
Volatile Organic Material (VOM)	85.27
Sulfur Dioxide (SO <sub>2</sub> )	0.13
Particulate Matter (PM)	27.55
Nitrogen Oxides (NO <sub>x</sub> )	23.30
HAP, not included in VOM or PM	---
TOTAL	136.25

This permit is a combined Title I/CAAPP permit that may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the Clean Air Act and regulations promulgated thereunder, including 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the permit by T1, T1R, or T1N. The source has requested that the Illinois EPA establish or revise such conditions in a Title I permit, consistent with the information provided in the CAAPP application. Any conditions established in a construction permit pursuant to Title I and not revised or deleted in this permit, remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them.

IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board's emission standards. The Board's emission standards represent the basic requirements for sources in Illinois.

All emission sources in Illinois must comply with the federal New Source Performance Standards (NSPS). The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

All emission sources in Illinois must comply with the federal National Emission Standards for Hazardous Air Pollutants (NESHAP). The Illinois EPA is administering NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.

V. PROPOSED PERMIT

CAAPP

A CAAPP permit contains all conditions that apply to a source and a listing of the applicable state and federal air pollution control regulations that are the origin of the conditions. The permit also contains emission limits and appropriate compliance procedures. The appropriate compliance procedures may include inspections, work practices, monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis.

Title I

A combined Title I/CAAPP permit contains terms and conditions established by the Illinois EPA pursuant to authority found in Title I provisions, e.g., 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Notwithstanding the expiration date on the first page of the permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a CAAPP permit. The Illinois EPA is therefore proposing to issue a CAAPP permit, subject to the conditions proposed in the draft permit.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 164.

MJP:jar