

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - NESHA SOURCE  
RENEWAL

PERMITTEE

Yale Polishers and Platers, Inc.  
Attn: Richard P. McCarter  
5247 South Keeler Avenue  
Chicago, Illinois 60632

Application No.: 86100005                      I.D. No.: 031600EZF  
Applicant's Designation:                      Date Received: January 9, 2001  
Subject: Plating Operation  
Date Issued: May 10, 2001                      Expiration Date: May 10, 2006  
Location: 5247 South Keeler Avenue, Chicago

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a degreaser, 3 coating dip tanks, plating operation with one decorative chrome plating tank, boiler, and 5 polishers with cyclone, pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 25 tons/yr for volatile organic material (VOM), 10 tons/yr of an individual hazardous air pollutant (HAP), or 25 tons/yr of total HAP). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permit(s) for this location.
- 2. The batch vapor degreaser is subject to 40 CFR part 63, Subpart T - National Emission Standards for Halogenated Solvent Cleaning. The Illinois EPA is administering this regulation in Illinois on behalf of the United States EPA under a delegation agreement. The United States EPA issued this final rule on December 2, 1994.
- 3a. Solvent usage and VOM and HAP emissions for the degreaser shall not exceed the following limits:

<u>Solvent Usage</u>		<u>VOM Emissions</u>		<u>HAP Emissions</u>	
<u>(Lbs/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Lbs/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Lbs/Mo)</u>	<u>(Tons/Yr)</u>
480	2.4	480	2.4	480	2.4

These limits are based on operation hours of 1,820 hours per year and the maximum solvent usage and the VOM and HAP emissions as determined by material balance.

- b. The Permittee shall only use trichloroethylene as the degreasing solvent.
- c. 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:

- U = Solvent usage for compliance determinations (gal/month).
- V = Virgin solvent<sup>A</sup> added to the degreasers (gal/month), 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 purposes 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.

- d. Compliance with the monthly VOM and HAP 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:

$$\begin{aligned} \text{Emissions} &= \text{Solvent Usage (U)} \times \text{Solvent Density} \\ (\text{Lbs/Month}) &= (\text{Gallon/Month}) \times (\text{Lbs/Gallon}) \end{aligned}$$

- e. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

- 4. The degreaser must meet the following base design requirements, pursuant to 40 CFR, Part 63.463.

- a. Each solvent cleaning machine must be equipped with a manual or working-mode cover that completely covers the machine openings. The cover must be periodically inspected to ensure that it remains free of cracks, holes, and other defects. The cover must

be closed at all times except during the cleaning, solvent removal, maintenance and monitoring of the degreasers.

- b. A freeboard ratio of 0.75 must be maintained for each degreaser.
  - c. Each degreaser must have an automated parts handling system that handles parts from initial loading to removal of cleaned parts. If the Permittee wants to use manual hoist, the Permittee must demonstrate to the Illinois EPA that the hoist can never exceed 11 feet per minute.
  - d. Each degreaser must be equipped with a liquid and vapor level indicator and must be operational at all times.
  - e. Each degreaser must be equipped with a primary condenser to provide continuous condensation or rising solvent vapors and to create a controlled vapor zone.
  - f. Each degreaser with lip exhaust control must be controlled by a carbon adsorption unit.
5. The Permittee shall comply with the following work and operational practices for the degreaser and post in the work place a one page summary of work practices, pursuant to 40 CFR Part 63.463(d).
- a. Conduct maintenance as per manufacturer's recommendation to ensure that each degreaser works properly. Any alternative maintenance practice must be approved by the Illinois EPA.
  - b. Each degreaser shall be covered to minimize air disturbances in the degreaser and the room at all times except during the cleaning, removal of solvent, maintenance and monitoring. If a cover cannot be used, air disturbances shall be controlled by Reduced Room Draft. Room draft shall not exceed 50 feet/minute.
  - c.
    - i. A speed of 3 feet/minute or less shall be maintained between entry and removal of parts basket or parts, or
    - ii. Parts basket or parts size shall be less than or equal to 50% of the solvent air interface area.
  - d. If cleaning operation involves spraying, spraying must be performed within the vapor zone (i.e., a baffled or enclosed area of the degreaser).
  - e. The Permittee must ensure that parts or parts basket are positioned so that solvent drains freely and parts basket or parts are not removed from the machine until parts are clean and solvent dripping has stopped.

- f. During startup, the Permittee must turn on the primary condenser prior to turning on the sump pump, and during shutdown, turn off the sump heater prior to turning off the primary condenser.
  - g. The Permittee must add and remove solvent with leak-proof couplings. The end of the pipe or hose introducing or withdrawing the solvent be located beneath the liquid solvent surface (i.e., submerged filling) in the sump.
  - h. The Permittee must collect and store the waste solvent, still bottoms, and sump bottoms in a closed container. Absorbent materials such as sponges, fabric, wood, and paper products shall not be cleaned.
  - i. Each operator of a solvent cleaning operation must be ready to take and pass an Operator Test at any time during the normal operation of the plant.
6. The degreaser must meet the following control combination: reduced room draft, dwell, and freeboard ratio of 1.0 requirements, pursuant to 40 CFR Part 63.463:
- a. For Reduced Room Draft (RRD), windspeed in room or within enclosure must be less than or equal to 50 feet/minute.
    - i. If windspeed in room is maintained by controlling room conditions, an initial test and a quarterly test shall be conducted to establish room condition. Also, room condition must be reestablished immediately if condition change. The Permittee shall monitor room condition every week.
    - ii. If windspeed in room is maintained by using a enclosure, an initial and a monthly test shall be conducted to measure windspeed in enclosure. Also, windspeed in the enclosure must be remeasured immediately if condition change. The Permittee shall inspect condition of enclosure every month.
  - b. i. The Permittee shall determine the dwell time for parts to be cleaned. The dwell time is determined as follows:
    - A. Using a stopwatch, measure the amount of time takes for the parts or parts baskets to cease dripping once placed in the vapor zone. This is the primary cleaning time.
    - B. The dwell time shall be greater than or equal to 35% of the primary cleaning time.
  - ii. The Permittee shall ensure that parts are held in the freeboard area above the vapor zone for the determined

dwelt time. A monthly measurement of the actual dwelt time shall be conducted.

- iii. Record dwelt time determination in second and time measurement calculations for life time.
- c.
  - i. The Permittee shall ensure and obtain certification from the manufacturer that the freeboard height is greater than or equal to the width of the interior freeboard. Freeboard ratio shall be determined by dividing the height of freeboard to the smallest interior freeboard width. If the freeboard ratio is less than 1.0, the Permittee shall immediately correct the freeboard ratio.
  - ii. Record of Freeboard Ratio and any modification to the Freeboard Ratio.
- 7a. The Permittee shall comply with the following monitoring procedures for the degreaser, pursuant to 40 CFR Part 63.466.
  - i. The Permittee shall conduct an initial monitoring test of the windspeed and of room parameters, quarterly monitoring of windspeed, and weekly monitoring of room parameters as per following procedures, pursuant to 40 CFR Part 63.466(d).
    - A. Measure the windspeed within 6 inches above the top of the freeboard area of the solvent cleaning machine using the following procedure.
      - 1. Determine the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located.
      - 2. Orient a velometer in the direction of the wind current at each of the four corners of the machine.
      - 3. Record the reading for each corner.
      - 4. Average the values obtained at each corner and record the average wind speed.
    - B. Monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft.
    - C. If an enclosure (full or partial) is used to achieve a reduced room draft, the owner or operator shall conduct an initial monitoring test and thereafter, monthly monitoring tests of the windspeed within the enclosure using the procedure specified above and a monthly visual inspection of the enclosure to determine if it is free of cracks, holes and other defects.

1. Determine the direction of the wind current in the enclosure by slowly rotating a velometer inside the entrance to the enclosure until the maximum speed is located.
  2. Record the maximum wind speed.
- ii. The Permittee shall conduct monitoring and record the results on a monthly basis for the dwell, pursuant to 40 CFR Part 63.466(b)(2). The Permittee shall determine the actual dwell time by measuring the period of time that parts are held within the freeboard area of the solvent cleaning machine after cleaning.
- b. The Permittee shall comply with the following monitoring procedures, pursuant to 40 CFR Part 63.466(c).
- i. The hoist speed shall be determined by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes (meters per minute).
  - ii. The monitoring shall be conducted monthly. If after the first year no exceedances of the hoist speed are measured monitoring of the hoist speed may be done quarterly.
  - iii. If an exceedance of the hoist speed occurs during quarterly monitoring the monitoring frequency returns to monthly until another year of compliance without an exceedance is demonstrated.
  - iv. If the Permittee can demonstrate to the Illinois EPA's satisfaction in the initial compliance report that the hoist cannot exceed a speed of 11 feet per minute, the required monitoring frequency is quarterly, including during the first year of compliance.
- 8a. The Permittee shall retain the following records on paper or computer disk for life time of the degreaser, pursuant to 40 CFR Part 63.467(a):
- i. An owners manual or a written maintenance and operating procedure for each machine and each piece of control equipment.
  - ii. The installation date of each machine. If installation date isn't available, a letter certifying that machine was installed prior to or on or after November 29, 1993, to determine compliance option for existing or new source.
  - iii. The halogenated HAP solvent content of each solvent used in each solvent cleaning machine.
  - iv. The test to determine an appropriate dwell time for each part or parts basket.

- b. The Permittee shall retain the following records in electronic or written form for a period of 5 years, pursuant to 40 CFR Part 63.467(b).
  - i. The results of control device monitoring required under 40 CFR Part 63.466.
  - ii. Estimates of annual solvent consumption for each solvent cleaning machine.
  - iii. The weekly record of room condition and windspeed.
  - iv. The monthly enclosure inspection results and windspeed measurement.
  - v. The dwell time determination in second and monthly actual dwell time determination calculation.
  - vi. The freeboard ratio and any modification to the freeboard ratio.
- c. The Permittee shall collect and record all of the following information for the degreaser and maintain the information at the source for a period of three years:
  - i. Trichloroethylene usage (lb/month and ton/yr)
  - ii. VOM and HAP emissions (lb/month and ton/yr)
- 9. The Permittee shall comply with the following reporting requirements for the degreaser, pursuant to 40 CFR Part 63.468:
  - a. An initial statement of compliance report demonstrating each machine is in compliance by December 2, 1997, must be submitted no later than May 1, 1998. The initial compliance report shall include the following:
    - i. Name and address.
    - ii. Facility location address.
    - iii. A list of control equipment (i.e., RRD) used on each machine to comply with the rule.
    - iv. A list of the parameters that are monitored and the values of these parameters measured on or during the first month after the compliance date, for each piece of control equipment required to be monitored.
    - v. For RRD, weekly record of room temperature and windspeed or monthly enclosure inspection results and windspeed measurement.

- b. An annual compliance report must be submitted by February 1 of the year following the one for which the reporting is being made. The compliance report shall include the following:
    - i. A statement, signed by the Permittee, 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."
    - ii. Solvent consumption and VOM and HAP emissions for each machine in lbs/month and tons/year, for the reporting period.
  - c. An exceedance report shall be submitted every 6 months if there is not an exceedance, and every 3 months if there is an exceedance. If an exceedance did not occur the report would consist of a statement certifying that there were no exceedances. The frequency of exceedance report will increase to quarterly after an exceedance occurs. The quarterly exceedance report shall include the following:
    - i. Information on the actions taken to comply with 40 CFR Part 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.
- 10a. The combined actual emissions of VOM from the 3 dip tanks shall not exceed 15 lbs/day or 2.74 T/yr.
- b. The emissions of HAPs as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish by rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of HAPs from this source not triggering the requirements to obtain a CAAPP permit from the Illinois EPA.
  - c. The following equation shall be used to calculate total daily VOM emissions from the 3 dip tanks:

$$T_e = \sum_{j=1}^m \sum_{i=1}^n (A_i B_i)_j$$

Where:

- $T_e$  = Total VOM emissions from coating lines each day before the application of capture systems and control devices in units of kg/day (lbs/day).
- $m$  = Number of coating lines at the source that otherwise would be subject to the same subsection of Section 218.104 of this Part (because they belong to the same category, e.g., can coating).
- $j$  = Subscript denoting an individual coating line.
- $n$  = Number of different coatings as applied each day on each coating line.
- $i$  = Subscript denoting an individual coating.
- $A_i$  = Weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line in units of kg VOM/l (lbs VOM/gal).
- $B_i$  = Volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line in units of l/day (gal/day). The instrument or method by which the owner or operator accurately measured or calculated the volume of each coating as applied on each coating line each day shall be described in the certification to the Illinois EPA.
- d. Compliance with the annual limit shall be determined on a daily basis from the sum of the data from the current day plus the preceding 364 days (i.e., a running total of 365 days of data).
11. The Permittee shall collect and record all of the following information for the 3 dip tanks and maintain the information at the source for a period of three years:
- a. The name and identification number of each coating as applied on each coating line.
  - b. The weight of VOM per volume and the volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line.
  - c. VOM emissions (lb/day and T/yr).

12. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA and USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.
13. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, a description of the exceedances or violation, and efforts to reduce emissions and future occurrences.
- 14a. The decorative chromium electroplating tank (plating tank) is subject to 40 CFR part 63, Subpart N - National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks. The Illinois EPA is administering this regulation in Illinois on behalf of the United States EPA under a delegation agreement. The United States EPA issued this final rule on January 25, 1995.
  - b. The plating tank shall be controlled by a chemical fume suppressant containing a wetting agent which shall be operated at all times during the operation of the tank.
- 15a. The plating tank shall not exceed the following limits pursuant to 40 CFR 63.342(d)(2):

<u>Equipment</u>	<u>Surface Tension (dynes/cm)</u>	<u>Particulate Matter Emissions (Lbs/Hr) (Tons/Yr)</u>	
Chrome Plating Tank	45	0.10	0.44

The surface tension limit is the allowable limit pursuant to 40 CFR Part 63, Subpart N. The particulate matter emission limits are based upon nominal emission rates. Compliance with the surface tension limit shall be determined from initial performance testing and ongoing compliance monitoring requirements.

- b. Failure to operate in accordance with operating parameter values determined during initial performance testing shall be considered a violation of the above limit, pursuant to 40 CFR 63, Subpart N.
- 16a. Pursuant to 40 CFR 63.342(f)(3), the Permittee shall develop and implement an operation and maintenance plan (plan) for the plating tank which includes the following:

- i. Description of the chemical fume suppressant containing a wetting agent in use.
    - ii. A checklist to document the operation and maintenance of the chemical fume suppressant containing a wetting agent.
    - iii. Procedures to be followed to ensure that the chemical fume suppressant containing a wetting agent malfunctions due to poor maintenance or other preventable conditions do not occur.
    - iv. A procedure for identifying malfunctions of process equipment, associate control system, and process and control system monitoring equipment and for implementing corrective actions to address such malfunctions.
  - b. If the 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 Permittee shall revise the plan within 45 days after such an event occurs. The revised plan shall include procedures for operating and maintaining the process equipment, associated control system, or monitoring equipment during similar malfunction events, and a program for corrective action for such events.
  - c. If actions taken by the Permittee during periods of malfunction are inconsistent with the procedures specified in the plan, the Permittee 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.
  - d. The Permittee shall keep the written 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 40 CFR Part 63, Subpart N. In addition, if the plan is revised, the Permittee shall keep previous (i.e., superseded) versions of the 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.
  - e. To satisfy the requirements of the plan, the Permittee may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, provided these alternative plans meet the requirements of the plan.
17. Pursuant to 40 CFR 63.342(f), the Permittee shall comply with the following work practice requirements for the plating tank.
- a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall operate and maintain any affected source, including associated control system, and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the plan.

- b. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the plan.
  - c. Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.
  - d. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Administrator, which may include, but is not limited to, monitoring results; review of the plan, procedures, and records; and inspection of the source.
18. The Permittee shall monitor the surface tension of the plating tank according to the following schedule to demonstrate continuous compliance, pursuant to 40 CFR 63.343(c)(5)(ii):
- a. Surface tension (dynes/cm) measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer.
  - b. If there have been no exceedances of the maximum surface tension after 40 hours of operation, then the monitoring frequency can be decreased to once every 8 hours. If there are no exceedances during the next 40 hours, then the frequency can be decreased to once every 40 hours. If an exceedance occurs at any time after that, then the initial monitoring schedule (every 4 hours) must be resumed. A subsequent decrease in monitoring frequency shall follow the schedule laid out above.
  - c. If the bath solution is drained from the affected tank and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency following the schedule laid out above.
19. The Permittee shall retain the following records for the plating tank for a period of 5 years, pursuant to 40 CFR 63.346:
- a. Maintenance performed on the plating tank as related to emissions, associated control system, and monitoring equipment.
  - b. Occurrence, duration, and cause (if known) of each malfunction of process, associated control system, and monitoring equipment.
  - c. Actions taken during periods of malfunction when such actions are inconsistent with the plan.
  - d. Records necessary to demonstrate consistency with the provisions of the plan required by 40 CFR 63.342(f)(3), which may be in the form of a checklist.
  - e. Copies of test reports documenting results of all performance tests, and 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).

- f. Records of monitoring data required by 40 CFR 63.343(c)(5)(ii) that are used to demonstrate compliance with the standard including the date and time the data are collected.
  - g. 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, associated control system, or monitoring equipment.
  - h. 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 process, associated control system, or monitoring equipment.
  - i. The total process operating time of the plating tank during the reporting period.
  - j. For sources using fume suppressants to comply with the standards, records of the date and time that fume suppressants are added to the electroplating bath.
  - k. Copies of all notifications and reports required by 40 CFR 63.9, 63.10, and 63.347 with supporting documentation.
- 20a. The Permittee shall prepare an ongoing compliance status report for the plating tank every year which shall be retained on site and made available to the Illinois EPA upon request. However, if both of the following conditions are met, semiannual reports shall be prepared and submitted to the Illinois EPA:
- i. The total duration of excess emissions (as indicated by the monitoring data) is 1 percent or greater of the total operating time for the reporting period; and
  - ii. The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is 5 percent or greater of the total operating time.
- b. The ongoing compliance report shall contain the following:
- i. The company name and address of the source.
  - ii. An identification of the operating parameter that is monitored for compliance determination.

- iii. The relevant emission limitation for the plating tank, 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 plating tank.
  - vi. The total operating time of the plating tank during the reporting period.
  - vii. A summary of operating parameter values, including the total duration of excess emissions during the reporting period as indicated by those values, the total duration of excess emissions expressed as a percent of the total plating tank operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to process upsets, control equipment malfunctions, other known causes, and unknown causes.
  - viii. A certification by a responsible official that the work practice standards were followed in accordance with the plan for the plating tank.
  - ix. If the plan was not followed, an explanation of the reasons for not following the provisions, an assessment of whether any excess emission and/or parameter monitoring exceedances are believed to have occurred, and a copy of the report(s) documenting that the plan was not followed.
  - x. A description of any changes in monitoring, processes, or controls since the last reporting period.
  - xi. The name, title, and signature of the responsible official who is certifying the accuracy of the report.
  - xii. The date of the report.
- 21a. Natural gas shall be the only fuel fired in the boiler.
- b. Natural gas usage and nitrogen oxides (NO<sub>x</sub>) emissions from boiler shall not exceed the following limits:

Natural Gas Usage		NO <sub>x</sub> Emissions	
(Therms/Mo)	(Therms/Yr)	(Tons/Mo)	(Tons/Yr)
11,388	136,656	0.06	0.68

These limits are based upon the maximum total natural gas usage at the maximum total firing rate and standard emission factors (100 lb

NO<sub>x</sub>/million scf of natural gas burned). Conversion factors used were 1,000 Btu/scf, 1 therm/100,000 Btu, and 2000 lb/ton.

- c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data from the previous month plus the preceding 11 months (i.e., a 12 month running total).
- 22. This permit is based upon negligible emissions of particulate matter from the 5 polishers with cyclone. For this purpose emissions shall not exceed nominal emission rates of 0.1 lb/hr and 0.44 ton/yr from each emission unit.
- 23. The Permittee shall maintain records of the following items for the boiler:
  - a. Natural gas usage (therms/month and therms/yr).
- 24. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

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

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
9511 West Harrison  
Des Plaines, Illinois 60016

If you have any questions on this permit, please call Don Hanko at 217/782-2113.

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

DES:DMH:jar

cc: IEPA, FOS Region 1  
IEPA, Compliance Section  
Lotus Notes

Attachment A

This attachment provides a summary of the maximum emission of the plating plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from the plant. This is a maximum usage of degreasing solvent, and maximum VOM and HAP emissions from the degreaser and the 3 dip tanks. The resulting maximum emissions are below the threshold levels (e.g., 25 tons/yr for VOM, 10 tons/yr of an individual HAP, and 25 tons/yr of total HAP) at which this source would be considered a major source for purposes of the CAAPP. Actual emissions from this source will be less than predicted in this summary to the extent that production is less than that required in this permit.

- 1a. Solvent usage and VOM and HAP emissions for the degreaser shall not exceed the following limits:

<u>Solvent Usage</u>		<u>VOM Emissions</u>		<u>HAP Emissions</u>	
<u>(Lbs/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Lbs/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Lbs/Mo)</u>	<u>(Tons/Yr)</u>
480	2.4	480	2.4	480	2.4

These limits are based on operating hours of 1,820 hours per year and the maximum solvent usage and the VOM and HAP emissions as determined by material balance.

- b. The combined actual emissions of VOM from the 3 dip tanks shall not exceed 15 lbs/day or 2.74 T/yr.
- c. The emissions of HAPs as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish by rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of HAPs from this source not triggering the requirements to obtain a CAAPP permit from the Illinois EPA.
- 2a. The plating tank shall not exceed the following limits pursuant to 40 CFR 63.342(d)(2):

<u>Equipment</u>	<u>Surface Tension</u> <u>(dynes/cm)</u>	<u>Particulate Matter</u> <u>Emissions</u>	
		<u>(Lbs/Hr)</u>	<u>(Tons/Yr)</u>
Chrome Plating Tank	45	0.10	0.44

The surface tension limit is the allowable limit pursuant to 40 CFR Part 63, Subpart N. The particulate matter emission limits are based upon nominal emission rates. Compliance with the surface tension limit shall be determined from initial performance testing and ongoing compliance monitoring requirements.

- b. This permit is based upon negligible emissions of particulate matter from the 5 polishers with cyclone. For this purpose emissions shall not exceed nominal emission rates of 0.1 lb/hr and 0.44 ton/yr from each emission unit.
- 3. Natural gas usage and nitrogen oxides (NO<sub>x</sub>) emissions from boiler shall not exceed the following limits:

<u>Natural Gas Usage</u>		<u>NO<sub>x</sub> Emissions</u>	
<u>(Therms/Mo)</u>	<u>(Therms/Yr)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
11,388	136,656	0.06	0.68

These limits are based upon the maximum total natural gas usage at the maximum total firing rate and standard emission factors (100 lb NO<sub>x</sub>/million scf of natural gas burned). Conversion factors used were 1,000 Btu/scf, 1 therm/100,000 Btu, and 2000 lb/ton.

DMH:jar