11 September 2003

Mr. David W. Walker
Mfg. and Facilities Engineer
HERFF JONES, INC.
P.O. Box 6500
Providence, RI 02940-6500

Dear Mr. Walker:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your application for the installation of process and air pollution control equipment at your facility located at 150 Herff Jones Way, Warwick, RI.

Enclosed is a minor source permit issued pursuant to our review of your application (Approval Nos. 1761-1773).

If there are any questions concerning this permit, please contact me at 222-2808, extension 7011.

Sincerely,

Douglas L. McVay
Associate Supervising Engineer
Office of Air Resources

cc: John Collins – ESS
Warwick Building Official

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES

MINOR SOURCE PERMIT

HERFF JONES, INC.

APPROVAL Nos. 1761-1773

Pursuant to the provisions of Air Pollution Control Regulation No. 9, this minor source permit is issued to:

Herff Jones, Inc.

For the following:

The installation of a Midwest Air Products Co, Inc. Inline Mist Eliminator (Approval No. 1762) to treat emissions generated from the decorative chromium electroplating operations (Approval No. 1761). The installation of two (2) identical Greco Brothers ultrasonic vapor degreasers, Model No. 4VD2016REH (Approval Nos. 1763-1764) that will utilize trichloroethylene as the cleaning solvent. The installation of ring casting equipment (Approval Nos. 1765-1772) that includes eight (8) natural-gas fired ovens manufactured by Charles Hones, Inc. (or equivalent); three (3) of the ovens (Model 2436 or equivalent) will have a maximum heat input input of 0.3 MMBtu/hr and five of the (5) ovens (Model 2436L or equivalent) will have a maximum heat input of 0.23 MMBtu/hr. The installation of nickel electroplating operations (Approval No. 1773)

Located At: *150 Herff Jones Way, Warwick*

This permit shall be effective from the date of its issuance and shall remain in effect until revoked by or surrendered to the Department. This permit does not relieve *Herff Jones, Inc.* **compliance with applicable state and federal air pollution control rules and regulations. The design, construction and operation of this equipment shall be subject to the attached permit conditions and emission limitations.**

Stephen Majkut, Chief
Office of Air Resources

Date of Issuance

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES

Permit Conditions and Emission Limitations

HERFF JONES, INC.

APPROVAL NOs. 1761-1773

A. Emission Limitations

1. Plating Operations

a. Chromium

(1) Total chromium emissions discharged to the atmosphere from the plating operations shall be controlled by not allowing the surface tension of the electroplating bath within the tank to exceed 45 dynes per centimeter at any time during the operation of the tank.

(2) Emissions of hexavalent chromium discharged to the atmosphere from the plating operations shall not exceed 60 grams per year (12-month rolling average).

(3) Emissions of hexavalent chromium discharged to the atmosphere from the plating operations shall not exceed 0.03 milligrams per ampere-hour.

b. Nickel

(1) Emissions of nickel discharged to the atmosphere from the plating operations shall not exceed 5.4 pounds per year (12-month rolling average).

c. Visible emissions from the plating exhaust shall not exceed 10% opacity (six-minute average).

2. Melting and Casting Operations

a. Emissions of hexavalent chromium discharged to the atmosphere from the melting and casting operations shall not exceed 3 grams per year (12-month rolling average).

b. Emissions of nickel discharged to the atmosphere from the melting and casting operations shall not exceed 81 grams per year (12-month rolling average).

c. Visible emissions from any exhaust shall not exceed 10% opacity (six-minute average).

3. Degreasing Operations

a. The total quantity of trichloroethylene emitted from each batch vapor degreaser shall not exceed 430 lbs during any 3-month period.

b. The total quantity of trichloroethylene used in all organic solvent cleaning operations shall not exceed 275 lbs per month (12-month rolling average).

c. Each batch vapor degreaser shall meet the following equipment standards:

(1) Equipment covers and dipping or rotating baskets must be constructed of nonporous or nonabsorbent material. Covers must form a tight seal with the sides of the batch vapor degreaser and have no gaps or holes.

(2) Any solvent spray must be a solid, fluid stream which is delivered at a pressure no greater than 10 pounds per square inch (psi) and which does not cause excessive splashing.

(3) The batch vapor degreaser shall be equipped with a cover that can be easily operated without disturbing the vapor zone and that is attached to the unit. The cover must be closed at all times except during parts entry and removal.

(4) The batch vapor degreaser shall be equipped with a primary condenser.

(5) The batch vapor degreaser must be equipped with the following safety switches:

(a) A condenser flow switch and thermostat to shut off the heat to the solvent if the condenser coolant is not circulating; and

(b) A vapor level control thermostat to shut off the heat when the vapor level rises above the height of the primary cooling coils; and

(c) If the unit is equipped with a spray apparatus, a spray safety switch to shut off the spray pump if the vapor level drops more than 4 inches (10 cm) from the bottom of the primary condenser coil and to prevent spraying outside the vapor level; and

(d) A low solvent safety switch to shut off the heating element if it should become exposed.

(6) The batch vapor degreaser must be equipped with a refrigerated freeboard chiller and freeboard ratio of at least 1.0.

B. Operating Requirements

1. Plating Operations

a. All chromic acid emissions generated from the plating operations shall be captured, contained and treated by the mist eliminator before discharge to the atmosphere.

b. The design of the ventilation system must meet the minimum requirements for exhaust volumes at each electroplating tank, as contained in the 23rd edition of the American Conference of Governmental Industrial Hygienists (ACGIH), Industrial Ventilation Manual.

c. Ampere-hours for the chromium electroplating bath shall not exceed 1,752,000 in any 12-month period.

d. Ampere-hours for the nickel electroplating bath shall not exceed 60,000 in any 12-month period.

e. At all times, including periods of startup, shutdown, and malfunction, the owner/operator shall operate and maintain the chromium electroplating bath, including the mist eliminator and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the operation and maintenance plan required by this permit.

f. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan required by this permit.

g. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Office of Air Resources, which may include, but is not limited to,

monitoring results; review of the O & M plan, procedures, and records; and inspection of the source.

h. Based on the results of a determination made under Condition B.1.g of this permit, the Office of Air Resources may require that the owner/operator make changes to the O & M plan required by this permit. Revisions may be required if the Office of Air Resources finds that the plan:

(1) Does not address a malfunction that has occurred;

(2) Fails to provide for the operation of the chromium electroplating bath, the air pollution control techniques and process monitoring equipment during a malfunction in a manner consistent with good air pollution control practices; or

(3) Does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.

2. Melting and Casting Operations

a. The total number of gold rings produced annually shall not exceed 175,000 (12-month rolling average).

b. The total number of stainless steel rings produced annually shall not exceed 62,500 (12-month rolling average).

3. Degreasing Operations

a. When the batch vapor degreaser cover is open, drafts at the same elevation as the tank lip must not be greater than 40m/min. (130ft/min.) when measured 2 meters (3 to 7 feet) upwind.

b. Leaks must be repaired immediately or the batch vapor degreaser shut down.

c. Equipment used in solvent cleaning must display a conspicuous summary of proper operating procedures consistent with minimizing emissions of organic solvents.

d. Spills shall be wiped up immediately. The wipe rags shall be stored in covered containers meeting the specifications in Condition B.3.j.

e. No porous or absorbent materials, such as sponges, fabrics, wood, or paper products, shall be cleaned in the batch vapor degreaser.

f. Parts baskets or parts shall be drained under the cover and shall not be removed from the batch vapor degreaser for at least 15 seconds or until dripping ceases and the pieces are visually dry, whichever is longer.

g. Parts having cavities or blind holes shall be tipped or rotated while draining before being removed from the vapor zone.

h. Parts shall be oriented for best drainage.

i. When solvent is added to or drained from the batch vapor degreaser, 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.

j. Solvent, waste solvent, still bottoms, and sump bottoms must be stored in covered containers and waste solvent transferred or disposal must allow less than 20 percent of the waste solvent (by weight) to evaporate into the atmosphere.

k. The batch vapor degreaser shall be maintained as recommended by the manufacturer of the equipment.

l. Operators must receive training in proper solvent cleaning procedures and, if requested by representatives of the Office of Air Resources or the EPA during an inspection, must complete and pass the applicable sections of the test on those procedures in Appendix A of Air Pollution Control Regulation No. 36.

m. Pieces shall be held in the vapor zone for at least 30 seconds or until condensation ceases, whichever is longer.

n. The workload shall not occupy more than half of the batch vapor degreaser's open top area.

o. The vapor level shall not rise or drop more than 4 inches (10 cm) when the workload enters or is removed from the vapor zone.

p. Sprays shall be used only within the vapor zone.

q. The batch vapor degreaser shall be operated so that water cannot be visually detected in the solvent exiting the water separator.

r. During startup of the batch vapor degreaser, the primary condenser shall be turned on before the sump heater.

s. During shutdown of the batch vapor degreaser, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

t. To minimize solvent carry-out, pieces shall be removed from the batch vapor degreaser at a rate less than 2 inches per second (10 feet per minute).

C. Operation and Maintenance Plan – Chrome Plating Operations

1. The owner/operator shall prepare an operation and maintenance (O & M) plan to be implemented no later than startup of the chromium electroplating tanks. The plan shall include the following elements:

a. The plan shall specify the operation and maintenance criteria for the chromium electroplating tanks, the mist eliminator and the process and control system monitoring equipment, and shall include a standardized checklist to document the operation and maintenance of this equipment;

b. The plan shall include the following work practice standards for the mist eliminator:

(1) Once per quarter, visually inspect the unit to ensure there is proper drainage, no chromic acid buildup on the mesh pad and no evidence of chemical attack on the structural integrity of the device; and,

(2) One per quarter, visually inspect the ductwork from the tank(s) to the mist eliminator to ensure there are no leaks; and,

(3) Perform washdown of the mesh pad in accordance with the manufacturer's recommendations.

c. The plan shall specify procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur; and

d. The plan shall include a systematic procedure for identifying malfunctions of process equipment and monitoring equipment and for implementing corrective actions to address such malfunctions.

2. If the O & M 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/operator shall revise the O & M plan within 45 days after such an event occurs. The revised plan shall include procedures for operating and maintaining

the process equipment or monitoring equipment during similar malfunction events, and a program for corrective action for such events.

3. If actions taken by the owner/operator during periods of malfunction are inconsistent with the procedures specified in the O & M plan, the owner/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/operator makes alternative reporting arrangements, in advance, with the Office of Air Resources.

4. The owner/operator shall keep the written O & M plan on record after it is developed to be made available for inspection, upon request, by the Office of Air Resources or its authorized representative for the life of the source. In addition, if the O & M plan is revised, the owner/operator shall keep previous (i.e., superseded) versions of the O & M plan on record to be made available for inspection, upon request, by the Office of Air Resources or its authorize representative for a period of 5 years after each revision to the plan.

D. Monitoring/Testing

1. Plating Operations

a. The owner/operator shall monitor the surface tension of the chromium electroplating bath. Operation of the chromium electroplating bath at a surface tension greater than 45 dynes/cm, shall constitute noncompliance with the emission limitations. The surface tension shall be monitored according to the following schedule:

(1) The surface tension shall be measured once every 4 hours during operation of the tank with a stalagmometer or a tensiometer as specified in Method 306B, of 40 CFR 63, Appendix A.

(2) 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 startup. Once there are no exceedances during 40 hours of tank operation, surface tension measurement may be conducted once every 8 hours of tank operation. Once there are no exceedances during 40 hours of tank operation on this schedule, 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 Condition is once every 40 hours of tank operation.

(3) 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 above. For example, if the owner/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.

(4) Once a bath solution is drained from the tank and a new solution added, the original monitoring schedule of once every 4 hours must be resumed, with a decrease in monitoring frequency allowed following the procedures described previously.

b. The pressure drop across the mist eliminator shall be monitored continuously.

c. The current supplied to the chromium and nickel electroplating baths shall be monitored continuously.

2. Degreasing Operations

a. The owner/operator shall on the first operating day of every month determine compliance with Condition A.3.a using the following procedure:

(1) A fill-line must be marked on the batch vapor degreasers on the first month the measurements are taken; and

(2) On the first day of each month thereafter, the machine shall be filled to the fill-line with clean liquid solvent;

(3) On the first day of each month, using the log of solvent additions and deletions required in Condition E.3.b(1), calculate solvent emissions for the most recent three month period as follows:

$$EA = SA - SR \qquad \text{Equation 1}$$

Where:

EA = solvent emissions during the three month period (pounds)

SA = the total amount of solvent added to the batch vapor degreaser during the three month period (pounds)

SR = the total amount of solvent removed from the batch vapor degreaser during the three month period (pounds)

(4) The batch vapor degreaser is in compliance with the three-month emission limit if solvent emissions in the three-month period, ***EA***, calculated using Equation 1, are less than or equal to 430 pounds.

b. The cover of the batch vapor degreaser shall be visually inspected monthly to confirm that it is opening and closing properly, that it completely covers the cleaning machine's openings when closed, and that it is free of cracks, holes, and other defects.

c. The temperature at the coldest point of the centroid of the chilled air blanket from the refrigerated chiller, shall be no greater than 57°F (30% of the solvent's boiling point) and shall be monitored weekly according to the following specifications:

(1) The temperature shall be monitored while the batch vapor degreaser is operating in the idling mode; and

(2) A thermometer or thermocouple shall be used to measure the temperature at the centroid of the air blanket; and

(3) If the temperature at the coldest point of the centroid of the air blanket exceeds 57°F (30% of the solvent's boiling point) the chiller shall be adjusted so that this specification is met.

d. Safety switches must be tested semiannually.

E. Recordkeeping Requirements

1. Plating Operations

a. The owner/operator shall maintain the following records:

(1) Inspection records for the mist eliminator and monitoring equipment, to document that the inspection and maintenance required by the work practice standards of Condition C.1 have taken place. The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief description of the working condition of the device during the

inspection, and any actions taken to correct deficiencies found during the inspection.

(2) Records of all maintenance performed on the electroplating tanks and monitoring equipment;

(3) Records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control and monitoring equipment;

(4) Records of actions taken during periods of malfunction when such actions are inconsistent with the O & M plan;

(5) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the O & M plan required by Condition C.1;

(6) Test reports documenting results of all performance tests;

(7) All measurements as may be necessary to determine the conditions of performance tests;

(8) Records of monitoring data required by Condition D.1 including the date and time the data are collected;

(9) 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, add-on air pollution control or monitoring equipment;

(10) 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, add-on air pollution control or monitoring equipment;

(11) The total process operating time of the affected source during the reported period;

(12) Records of the date and time that fume suppressants are added to the electroplating bath;

(13) If the source has been granted a waiver under 40 CFR 63.10(f), any information demonstrating whether a source is meeting the

requirements for a waiver of recordkeeping or reporting requirements; and

(14) All documentation supporting the notifications and reports required by 40 CFR 63.9, 40 CFR 63.10 and 40 CFR 63.347.

(15) The total ampere-hours applied to each plating tank on a monthly basis.

b. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month, determine the total ampere-hours applied to each electroplating tank for the previous 12 months. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.

c. The pressure drop across the mist eliminator shall be checked a minimum of once per day and the date, time, and measurement shall be recorded.

2. Melting and Casting Operations

a. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month determine the total quantity of gold rings produced for the previous twelve months.

b. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month determine the total quantity stainless steel rings produced for the previous twelve months.

3. Degreasing Operations

a. The owner/operator shall maintain the following records for the lifetime of the batch vapor degreaser:

(1) Owner's manuals or written maintenance and operating procedures for the batch vapor degreaser; and

(2) Date of installation of the batch vapor degreaser; and

(3) Records of the content of solvent used in the batch vapor degreaser; and

(4) Records of training provided to batch vapor degreaser operators.

b. The owner/operator shall maintain the following records for the batch vapor degreasers for a period of five years:

(1) A log of solvent additions and deletions made to the batch vapor degreaser.

(2) The monthly solvent usage, the usage for each 3 month period, the usage for each 12-month period and the calculations of those values according to the procedure specified in Condition D.2.a.(3); and

(3) The results of monitoring required under Section D.2 of this permit; and

(4) Information on the actions taken to comply with Condition D.2.c.(3). This includes records of written or verbal orders for replacement parts, a description of the repairs made, and the additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels; and

(5) The data and type of each equipment malfunction (or leak) and the date it was repaired; and

(6) If any safety switches are activated, the date and the reason why the switch was triggered; and

(7) The results of semiannual safety switch tests.

c. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month determine the total quantity of trichloroethylene used in each batch vapor degreaser for the previous three months.

d. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month determine the total quantity of trichloroethylene used in all organic solvent cleaning operations for the previous twelve months.

4. Unless otherwise stated in this permit, all records required in this permit shall be maintained for a minimum of five years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request.

F. Reporting Requirements

1. Plating Operations

a. The owner/operator shall fulfill all reporting requirements outlined in this section, in 40 CFR part 63, Subpart A--General Provisions and in 40 CFR 63, Subpart N--National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing

Tanks. Unless indicted otherwise, all reports shall be made to the USEPA Region I, at the address identified in 40 CFR 63.13 unless the Office of Air Resources has been delegated authority to implement 40 CFR part 63, Subpart N.

b. The owner/operator shall submit a notification of construction as soon as practicable before the construction is planned to commence. The notification shall contain the information identified in 40 CFR 63.345(b)(2).

c. The owner/operator shall submit an initial notification (in addition to the notification of construction) as follows:

(1) A notification of the date when construction was commenced, shall be submitted no later than 30 calendar days after such date; and

(2) A notification of the actual date of startup of the source shall be submitted within 30 calendar days after such date.

d. The owner/operator shall submit a notification of compliance status pursuant to the requirements of 40 CFR 63.347(e).

e. The owner/operator shall submit a summary report to document the ongoing compliance status of the source pursuant to the requirements of 40 CFR 63.347(g) or 40 CFR 63.347(h), as applicable.

f. The owner/operator shall notify the Office of Air Resources, in writing, within 30 days after the first of the month, whenever the total ampere-hours applied to the chromium plating tank equals or exceeds 1,752,000 in any 12 month period.

g. The owner/operator shall notify the Office of Air Resources, in writing, within 30 days after the first of the month, whenever the total ampere-hours applied to the nickel electroplating tank equals or exceeds 60,000 in any 12 month period.

2. Melting and Casting Operations

a. The owner/operator shall notify the Office of Air Resources, in writing, within 30 days after the first of the month, whenever the total quantity of gold rings exceeds 175,000 for the previous twelve months.

b. The owner/operator shall notify the Office of Air Resources, in writing, within 30 days after the first of the month, whenever the total quantity of stainless steel rings exceeds 62,500 for the previous twelve months.

3. Degreasing Operations

a. The owner/operator shall notify the Office of Air Resources, in writing, within 30 days after the first of the month, whenever the total quantity of trichloroethylene emitted from any batch vapor degreaser for the previous three months exceeds 430 pounds.

b. The owner/operator shall notify the Office of Air Resources, in writing, within 30 days after the first of the month, whenever the total quantity of trichloroethylene used in all organic solvent cleaning operations for the previous twelve months exceeds 3300 pounds.

c. The owner/operator shall submit a Compliance Notification Report for the two batch vapor degreasers to the Office of Air Resources no more than 60 days after startup of each cleaning machine. Compliance Notification Reports shall contain the following information:

(1) The name and address of the owner or operator; and

(2) The address of the batch vapor degreasers; and

(3) A statement, signed by the owner or operator, stating that the batch vapor degreaser s are in compliance with this permit; and

(4) The control equipment used to achieve compliance for the batch vapor degreaser s; and

(5) The dates and results of weekly temperature monitoring for the refrigerated chillers, for the first month after the effective date of this permit.

d. The owner/operator shall submit an Exceedance Report to the Office of Air Resources semiannually except when, the Office of Air Resources determines on a case-by-case basis that more frequent reporting is necessary.

(1) The following occurrences are considered exceedances and must be reported on the Exceedance Report:

(a) If the 3-month emission limit in Condition A.3.a is not met in any month.

(b) If the 12-month average monthly usage limit in Condition A.3.b is not met in any month.

(c) If the requirements in D.2.b or D.2.c are not met and are not corrected within 10 days of detection. Once adjustment or repairs have been made, parameters must be remeasured to demonstrate that the parameter is within the acceptable limits.

(2) If an exceedance occurs, Exceedance Reports must be submitted quarterly until a request to reduce the reporting frequency as specified in Condition F.3.b.(5) has been approved.

(3) The Exceedance Report shall be received by the thirtieth day following the end of each exceedance reporting period. Initial reporting periods are January 1 – June 30 and July 1 – December 31.

(4) Exceedance Reports shall include the following information:

(a) Records of written or verbal orders for replacement parts, a description of the repairs made, additional monitoring to demonstrate that monitored parameters have returned to acceptable levels; and

(b) If an exceedance has occurred, the reason for the exceedance and description of the actions taken to correct the exceedance; and

(c) If an exceedance has occurred, the dates the batch vapor degreasers or control equipment were repaired, retested, and returned to service; and

(d) If an exceedance has not occurred or the cleaning and control equipment has not been inoperative, repaired, or adjusted, this information must be stated in the report.

(5) If the owner/operator is required to submit Exceedance Reports on a quarterly (or more frequent) basis, the submittal frequency may be reduced to semiannual with the Director's approval, if the following requirements are achieved:

(a) The owner/operator has demonstrated a full year of compliance without an exceedance; and

(b) The owner/operator continues to comply with the recordkeeping and monitoring requirements specified in this permit.

e. The owner/operator shall submit an annual report to the Office of Air Resources by February 1 of each year for the previous calendar year. This report shall include the following:

(1) A signed statement from the facility owner or his designee stating that, "All operators of the batch vapor degreasers have received training on the proper operation of batch vapor degreasers and their control devices sufficient to pass the test required in Appendix A of Air Pollution Control Regulation No. 36".

(2) An estimate of solvent consumption for each batch vapor degreaser during the reporting period.

(3) The solvent emissions during each three month period, calculated using Equation 2.

5. The owner/operator shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this permit or any other applicable air pollution control rule or regulation.

6. The owner/operator shall notify the Office of Air Resources, in writing, of any noncompliance with the terms of this permit within 30 calendar days of becoming aware of such occurrence and supply the Director with the following information:

a. The name and location of the facility;

b. The subject source(s) that caused the noncompliance with the permit term;

c. The time and date of first observation of the incident of noncompliance;

d. The cause and expected duration of the incident of noncompliance;

e. The estimated rate of emissions (expressed in lbs/hr or lbs/day) during the incident and the operating data and calculations used in estimating the emission rate.

f. The proposed corrective actions and schedule to correct the conditions causing the incidence of noncompliance.

7. The owner/operator shall notify the Office of Air Resources in writing, of any planned physical or operational change to any equipment covered under this approval that would:

a. Change the representation of the facility in the application.

b. Alter the applicability of any state or federal air pollution control rule or regulation.

c. Result in the violation of any terms or conditions of this permit.

d. Qualify as a modification under APC Regulation No. 9.

Such notification shall include:

- Information describing the nature of the change.
- Information describing the effect of the change on the emission of any air contaminant.
- The scheduled completion date of the planned change.

Any such change shall be consistent with the appropriate regulation and have the prior approval of the Director.

G. Malfunctions

1. Malfunction means a sudden and unavoidable breakdown of process or control equipment. In the case of a malfunction of any air pollution control system, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of an air pollution control system is expected or may reasonably be expected to continue for longer than 24 hours and if the owner/operator wishes to operate the source on which it is installed at any time beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include, but is not limited to, the following:

   a. Identification of the specific air pollution control system and source on which it is installed;

   b. The expected period of time that the air pollution control system will be malfunctioning or out of service;

   c. The nature and quantity of air contaminants likely to be emitted during said period;

   d. Measures that will be taken to minimize the length of said period;

   e. The reasons that it would be impossible or impractical to cease the source operation during said period.

2. The owner/operator may seek to establish that a malfunction of any air pollution control system that would result in noncompliance with any of the terms of this permit or any other applicable air pollution control rules and regulations was due to unavoidable increases in emissions attributable to the malfunction. To do so, the owner/operator must demonstrate to the Office of Air Resources that:

   a. The malfunction was not attributable to improperly designed equipment, lack of preventative maintenance, careless or improper operation or operator error;

   b. The malfunction is not part of a recurring pattern indicative of inadequate design, operation or maintenance;

   c. Repairs were performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such repairs were completed as expeditiously as practicable.

   d. All possible steps were taken to minimize emissions during the period of time that repairs were performed.

   e. Emissions during the period of time that the repairs were performed will not:

      (1) Cause and increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels; and

      (2) Cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard.

   f. The reasons that it would be impossible or impractical to cease the source operation during said period.

   g. The owner/operator's actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence.

   This demonstration must be provided to the Office of Air Resources within two working days of the time when the malfunction occurred and contain a description of the malfunction, any steps taken to minimize emissions and corrective actions taken.

The owner/operator shall have the burden of proof in seeking to establish that noncompliance was due to unavoidable increases in emissions attributable to the malfunction.

H. Other Permit Conditions

1. To the extent consistent with the requirements of this permit and applicable federal and state laws, the facility shall be designed, constructed and operated in accordance with the representation of the equipment in the permit application prepared by ESS Group, Inc.

2. There shall be no bypassing of the mist eliminator during times when the chromium electroplating baths are operating.

3. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all times for the purpose of inspecting any air pollution source, investigating any condition it believes may be causing air pollution or examining any records required to be maintained by the Office of Air Resources.

4. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the facility in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the source.

5. The owner/operator is subject to all applicable provisions of 40 CFR 63, Subpart T -- National Emission Standards for Halogenated Solvent Cleaning and Subpart A (General Provisions) , as identified in Appendix B to 40 CFR 63, Subpart T. Compliance with all applicable provisions of these regulations is required.

6. The owner/operator is subject to all applicable provisions of 40 CFR Part 63, Subpart N -- National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks and Subpart A -- General Provisions, as identified in Table 1 of 40 CFR 63, Subpart N. Compliance with all applicable provisions of these regulations is required.

7. If the three month emission limitation in Condition A.3.a is exceeded two times, an automated parts handling system must be installed within 60 days of the end of the three month period in which the second exceedance occurred.