



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

September 5, 2001

Mr. Peter Valantiejus
M & P Plating, Inc.
700 – 37th Street South
St. Petersburg, Florida 33711

Re: Facility No.: 1030333-002

Dear Mr. Valantiejus:

The Department has received the Title V General Permit Notification Form for the chromium electroplating and anodizing facility that you submitted on July 30, 2001.

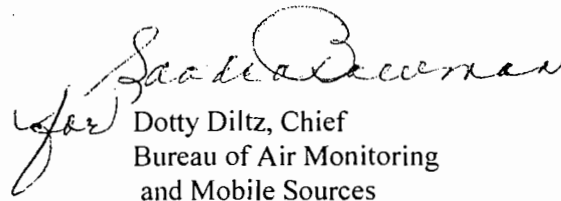
Please note that in January of each year the Department will be mailing fee notices to those facilities using the Title V general permit. This annual operation fee is \$50 and it is due and payable between January 15 and March 1 of each year the facility is in operation and is subject to the requirements of the Title V general permit.

If you have or expect to have any changes in your mailing address, location address, responsible official, or phone number, please notify the Department at the following address:

Title V General Permits Office
Bureau of Air Monitoring and Mobile Sources MS 5510
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

If there are any changes in the facility status, including change of operating parameters or equipment, or if you have any additional questions regarding the Title V General Permit Program, please contact the district or local air program compliance inspector in your area.

Sincerely,


Dotty Diltz, Chief
Bureau of Air Monitoring
and Mobile Sources

DD/jw

cc: Mr. Gary Robbins, Pinellas County

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Fees Paid 96-00

SOC 5

Compliance IN



Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

September 7, 2001

Mr. Peter Valantiejus
M & P Plating, Inc.
700 - 37th Street South
St. Petersburg, Florida 33711

Dear Mr. Valantiejus:

Thank you for your submittal of the Chromium Electroplating and Anodizing Air General Permit Notification Form. The Department received your submittal on July 30.

In reviewing your submittal, it was noted that M & P Plating, Inc., elected to surrender its existing Title V air general permit (AIRS ID 1030333). If your intention is to continue your dry cleaning operations, then your existing permit is not to be surrendered and the notification form will need to be corrected. To correct the form, please remove the checkmark next to the "I hereby surrender" statement and initial the change, resign the form on the back and date.

Please return the corrected form as quickly as possible to:

General Permits Section
Bureau of Air Monitoring and Mobile Sources, MS 5510
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

If you no longer wish to operate a dry cleaning facility under the Title V air general permit, then your permit may be surrendered. In this case, you need to do nothing and your form will continue to be processed as submitted.

Thank you for your attention to this matter and I apologize for the confusion with this portion of the form.

If you have any questions concerning the form or the corrections, please contact either Rick Butler at 850/921-9586 or me at 850/921-9583.

Sincerely,

Sandra Bowman
Bureau of Air Monitoring
and Mobile Sources

SB/jw
Enclosure
cc: Mr. Gary Robbins, Pinellas County *"More Protection, Less Process"*

CHROMIUM ELECTROPLATING AND ANODIZING
AIR GENERAL PERMIT NOTIFICATION FORM

RECEIVED

JUL 30 2001

Bureau of Air Monitoring
& Mobile Sources

Part III. Notification of Intent to Use General permit

Prior to filling out this form, please read the instructions provided at the end of the form. Send completed form to the address listed in the instructions and keep a copy of the form for your files.

Facility Name and Location

1. Facility Owner/Company Name (Name of corporation, agency, or individual owner): M & P Plating, Inc.
2. Site Name (For example, plant name or number): M & P Plating, Inc. - St. Petersburg
3. Hazardous Waste Generator Identification Number: 1300333-001-AG
4. Facility Location: Street Address: 700 - 37th Street South City: St. Petersburg County: Pinellas Zip Code: 33711
5. Facility Identification Number (DEP Use ONLY - do not fill in) 1030333-002

Responsible Official

6. Name and Title of Responsible Official: Name: Mr. Peter Valantiejus Title: Co-Owner
7. Responsible Official Mailing Address: Organization/Firm: M & P Plating, Inc. Street Address: 700 - 37th Street South City: St. Petersburg County: Pinellas Zip Code: 33711
8. Responsible Official Telephone Number: Telephone: (727) 327-5118 Fax: () -

Facility Contact (If different from Responsible Official)

9. Name and Title of Facility Contact (For example, plant manager): Mr. Peter Valantiejus, Owner
10. Facility Contact Address: Street Address: 700 - 37th Street South City: St. Petersburg County: Pinellas Zip Code: 33711
11. Facility Contact Telephone Number: Telephone: (727) 327-5118 Fax: () -

Facility Information

1.a. Provide the information below for each hard electroplating machine at the facility. Indicate the type of machine, the date of its purchase, and the date the control device was installed, if applicable.

HARD CHROMIUM PLATING TANKS

DATE PURCHASED	UNIT CLASS (circle one)	DATE CNTRL DEVICE INSTALLED	CONTROL DEVICE (see key)	APPLICABLE STANDARD (see key)
1/85	New/Existing	1/85	PBS	b
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			

Key for Control Device Type

- PBS = packed-bed scrubber
- CMP = composite mesh pad
- PBS/CMP = packed-bed scrubber and composite mesh pad
- FS = fume suppressant only
- FS/WA = fume suppressant with a wetting agent
- FM = fiber-bed mist eliminator
- WA = wetting agent

Applicable Standard Key

- a = 0.03 mg/dscm
- b = 0.015 mg/dscm
- c = alternative standard for multiple tanks under common control

Is the facility's cumulative potential rectifier capacity greater than 60 million ampere-hours per year?

Yes No

1.b. Provide the information below for each decorative electroplating or anodizing machine at the facility. Indicate the type of machine, the date of its purchase, and the date the control device was installed, if applicable.

DECORATIVE AND ANODIZING TANKS

DATE PURCHASED	UNIT CLASS (circle one)	DATE CNTRL DEVICE INSTALLED	CONTROL DEVICE (see key)	APPLICABLE STANDARD (see key)
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			

Key for Control Device Type

PBS = packed-bed scrubber
CMP = composite mesh pad
PBS/CMP = packed-bed scrubber and composite mesh pad
FS = fume suppressant only
FS/WA = fume suppressant with a wetting agent
FM = fiber-bed mist eliminator
WA = wetting agent

Applicable Standard Key

x = 0.01 mg/dscm
y = 45 dynes/cm
z = records of bath components
(trivalent Cr tanks only)
c = alternative standard for multiple tanks
under common control

2. Indicate the date by which the facility must meet the requirements of paragraph (5) of Part II:
(Note: if your facility contains both hard and decorative plating or anodizing units, you must check each applicable date)

January 25, 1996 January 25, 1997

3. Indicate how the facility will fulfill the compliance demonstration:

The facility will conduct an initial performance test (FDEP has initial test on file, this is a renewal permit and facility keeps required records)

The facility will use a wetting agent to reduce emissions and will meet the existing surface tension limit in No. 1 above.

4. Equipment Monitoring and Recordkeeping Information

Check all logs which are required to be kept on-site in accordance with the requirements of this general permit:

- | | | | |
|--|-------------------------------------|--|-------------------------------------|
| (a) Equipment maintenance | <input checked="" type="checkbox"/> | (b) Equipment inspection and repair | <input checked="" type="checkbox"/> |
| (c) Equipment malfunctions | <input checked="" type="checkbox"/> | (d) Operation and maintenance checklist | <input checked="" type="checkbox"/> |
| (e) Instrument calibration
(used during initial performance test) | <input type="checkbox"/> | (f) Start-up, shutdown, malfunction plan | <input checked="" type="checkbox"/> |
| (g) Performance test results | <input checked="" type="checkbox"/> | (h) Equipment monitoring | <input checked="" type="checkbox"/> |
| (i) Excess emissions | <input checked="" type="checkbox"/> | (j) Operating periods | <input checked="" type="checkbox"/> |
| (k) Rectifier capacity | <input checked="" type="checkbox"/> | (l) Fume suppressant records | <input type="checkbox"/> |
| (m) Purchase records of wetting agent components | <input type="checkbox"/> | | |

5. Surrender of Existing DEP Air Permit(s)

Please indicate with an "X" the appropriate selection:

I hereby surrender all existing DEP air permits authorizing operation of the facility indicated in this notification form; the permit number(s) are:

1030333-001-AG

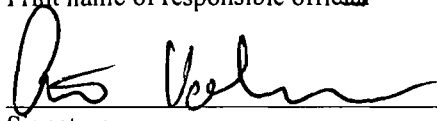
No DEP air permits currently exist for the operation of the facility indicated in this notification form.

Responsible Official Certification

I, the undersigned, am the responsible official, as defined in Part II of this form, of the facility addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I agree to operate and maintain the air pollutant emissions units and air pollution control equipment described above so as to comply with all terms and conditions of this general permit as set forth in Part II of this notification form.

I will promptly notify the Department of any changes to the information contained in this notification.

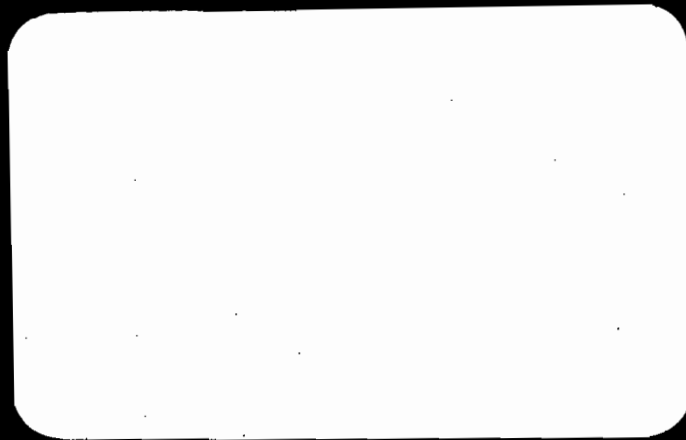
Peter Valantiejus
Print name of responsible official


Signature

7-18-01
Date

Central Florida Testing Laboratories, Inc.

Clearwater, Florida



Testing Development and Research
Engineering Consultants

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JUL 20 2001

Department of Environmental Protection
BY SOUTHWEST DISTRICT

M & P PLATING, INC.

Chrome Electroplating Facility
St. Petersburg, Pinellas County, Florida

**FDEP "General Permit" Renewal
Application**

FDEP General Permit No. 1030333-001-AG

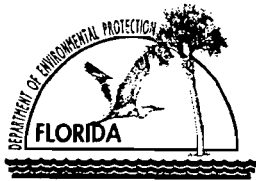
JULY - 2001

Rich Butler RB

RECEIVED

JUL 30 2001

Bureau of Air Monitoring
& Mobile Sources



Department of Environmental Protection

Division of Air Resources Management

CHROMIUM ELECTROPLATING AND ANODIZING AIR GENERAL PERMIT NOTIFICATION FORM

Part I. Procedures For Use of General Permit

(1) Eligibility Determination. The Department of Environmental Protection has established a Title V air general permit under Rule 62-213.300(1)(d), F.A.C., for chromium electroplating and anodizing facilities, the terms and conditions of which are listed in Part II of this Chromium Electroplating and Anodizing Air General Permit Notification Form. A chromium electroplating and anodizing facility may use this Title V air general permit provided the facility meets the eligibility criteria set forth in the rule and, throughout the term of the general permit, maintains its eligibility to use the general permit and complies with all terms and conditions of the general permit. The responsible official of the chromium electroplating and anodizing facility shall determine the facility's eligibility for the Title V air general permit and notify the Department of intent to use the general permit.

(a) A chromium electroplating and anodizing facility is eligible to operate under the terms and conditions of the Title V air general permit established at Rule 62-213.300(1)(d), F.A.C., provided the responsible official has submitted a completed Part III of this notification form to the Department at least 30 days prior to beginning operations under the general permit and, throughout the term of the general permit, all of the following conditions are met:

1. The facility operates no emissions units other than chromium electroplating and anodizing units and emissions units which are considered insignificant pursuant to the criteria of Rule 62-213.300(2)(a)1, F.A.C., set forth in paragraph (1)(b).
2. The facility is classified as a Title V source pursuant to paragraph (f), only, of the definition of "major source of air pollution" at Rule 62-210.200, F.A.C.; that is, the facility is a Title V source by virtue of being subject to 40 CFR Part 63, Subpart N, but does not emit any pollutant in a major amount as set forth in paragraphs (a) through (e) of the definition of "major source of air pollution"; and
3. The facility complies with all general conditions of Rule 62-213.300(3), F.A.C., set forth in Part II of this notification form, and all requirements of 40 CFR Part 63, Subparts A and N, as applicable, also set forth in Part II of the notification form.
4. Exemptions. The requirements of this permit do not apply to the following operations:
 - a. Process tanks with chromium solutions in which no electroplating or anodizing occurs.
 - b. Process tanks with chromium solutions in which no electrolytic process occurs.
 - c. Other metal (e.g. nickel, copper, cadmium) plating or anodizing operations.
 - d. Research or laboratory chromium electroplating or chromium anodizing facilities.

(b) No facility which contains an emissions unit, other than chromium electroplating and anodizing units or a unit considered insignificant pursuant to this paragraph, shall be eligible to use this air general permit. No facility is eligible to use more than one air general permit. An emissions unit or activity shall be considered insignificant if all of the following criteria are met:

1. The emissions unit or activity would be subject to no unit-specific applicable requirement.
2. The emissions unit or activity would neither emit nor have the potential to emit:
 - a. 500 pounds per year or more of lead and lead compounds expressed as lead;
 - b. 1,000 pounds per year or more of any hazardous air pollutants;
 - c. 2,500 pounds per year or more of total hazardous air pollutants; or
 - d. 5.0 tons per year or more each of any other regulated pollutant.

3. The emissions unit or activity, in combination with other units and activities at the facility, would neither cause the facility to emit nor have the potential to emit:
 - a. 100 tons per year or more of carbon monoxide, nitrogen oxides, particulate matter, sulfur dioxide, or volatile organic compounds;
 - b. 5 tons per year or more of lead and lead compounds expressed as lead;
 - c. 10 tons per year or more of any hazardous air pollutant;
 - d. 25 tons per year or more of total hazardous air pollutants; or
 - e. 100 tons per year or more of any other regulated pollutant.
 - (c) Any facility that would use a Title V air general permit under Rule 62-213.300, F.A.C., must surrender all existing air permits authorizing the operation of the facility.
 - (d) If a facility at any time becomes ineligible for the use of the Title V air general permit and is subject to the source-specific Title V air operation permit requirements of Chapter 62-213, F.A.C., it shall be subject to enforcement action for operating without an air operation permit.
 - (e) Notwithstanding the shield provisions of Rule 62-213.460, F.A.C., any facility utilizing a Title V air general permit will be subject to enforcement action for operation without a permit under Chapter 62-213, F.A.C., if it is determined to be initially ineligible for the air general permit which is being utilized.
- (2) **Notification.** For each facility intending to operate under the provisions of this Title V air general permit, the responsible official must complete and submit Part III of this Chromium Electroplating and Anodizing Air General Permit Notification Form (DEP Form No. 62-213.900(5)) to give notice to the Department of intent to use such permit.
- (3) **Administrative Corrections.** Within 30 days of any changes requiring corrections to information contained in this notification form, the responsible official shall notify the Department in writing. Such changes shall include:
- (a) Any change in name of the responsible official or facility address or phone number;
 - (b) A change in facility status requiring more frequent monitoring or reporting by the responsible official from that noted on the most recent notification form; and
 - (c) Any other similar minor administrative change at the facility.
- (4) **Violation of Permit.** This Title V air general permit is valid only for the specific activity indicated. Any deviation from the specified activity and the conditions for undertaking that activity is a violation of the permit. The responsible official is placed on notice that violation of the permit constitutes grounds for revocation and suspension pursuant to Rules 62-4.100 and 62-4.530(4), F.A.C., and initiation of enforcement action pursuant to s. 403.141 through 403.161, F.S. No revocation shall become effective except after notice is served by personal service, certified mail, or newspaper notice pursuant to Section 120.60(5), F.S., upon the person or persons named therein and a hearing held, if requested within the time specified in the notice. The notice shall specify the provision of the law or rule alleged to be violated, or the permit condition or Department order alleged to be violated, and the facts alleged to constitute a violation thereof.
- (5) **Nullification of Eligibility.** Eligibility for use of a Title V air general permit is automatically nullified by:
- (a) Submission of false or inaccurate information in the notification form for use of the Title V air general permit or in the required reports;
 - (b) Refusal of lawful inspection by Department staff;
 - (c) Failure to submit operational reports or other information required by the general permit; or
 - (d) Failure to timely pay the required annual emissions fee, penalty, or interest.
- (6) **Use of Permit.** Any facility eligible to operate under the terms of a Title V air general permit may use the permit 30 days after giving notice to the Department without any agency action.

CHROMIUM ELECTROPLATING AND ANODIZING FACILITIES
AIR GENERAL PERMIT NOTIFICATION FORM

Part II. Permit Terms and Conditions

(Keep this Part onsite for use by facility staff.)

- (1) **Applicability.** This part of the Chromium Electroplating and Anodizing Air General Permit Notification Form (DEP Form No. 62-213.900(5)) establishes the terms and conditions of this Title V air general permit. Throughout the term of this air general permit, the responsible official shall ensure that the facility maintains its eligibility to use the general permit and complies with all general conditions of Rule 62-213.300(3), F.A.C., set forth below, and all requirements of 40 CFR Part 63, Subpart N, as applicable, also set forth in this part of the notification form.
- (2) **General Conditions.** All terms, conditions, requirements, limitations, and restrictions set forth in Rule 62-213.300(3), F.A.C., and listed below (Rule 62-213.300(3)(a) through (r), F.A.C.) are "general permit conditions" and are binding upon the owner or operator and upon the responsible official of the facility utilizing this Title V air general permit.
- (a) The duration of this general permit is five years. No later than 30 days prior to the fifth anniversary of the filing of intent to use this general permit, the responsible official shall submit a new notice of intent which shall contain all current information regarding the facility. The general permit is not transferable and does not follow a change in ownership of the facility. Prior to any sale, other change of ownership, or permanent shutdown of the facility, the responsible official shall notify the Department.
 - (b) The owner or operator of the facility must, upon written notice from the Department, submit payment of an annual operation fee in the amount of \$50.00. This fee is due and payable annually between January 15 and March 1 for the preceding year which the facility was in operation and subject to the requirements of this general permit.
 - (c) This general permit is valid only for the specific activity indicated. Any deviation from the specified activity and the conditions for undertaking that activity shall constitute a violation of the permit.
 - (d) This general permit does not convey any vested rights or any exclusive privileges, nor does it authorize any injury to public or private property nor any invasion of personal rights. It does not authorize any infringement of federal, state, or local laws or regulations.
 - (e) This general permit does not relieve the responsible official or the owner or operator of the facility from liability and penalties when the operation of the permitted activity causes harm or injury to human health or welfare; causes harm or injury to animal, plant or aquatic life; or causes harm or injury to property. It does not allow the responsible official, owner, or operator to cause pollution in contravention of Florida law.
 - (f) This general permit conveys no title to land or water, nor does it constitute state recognition or acknowledgment of title.
 - (g) The responsible official shall make every reasonable effort to conduct the specific activity authorized by this general permit in a manner that will minimize any adverse effects on adjacent property or on public use of the adjacent property, where applicable, and on the environment, including fish, wildlife, natural resources, water quality, or air quality.
 - (h) The responsible official shall allow a duly authorized representative of the Department access to the permitted facility or activity at reasonable times to inspect and test, upon presentation of credentials or other documents as may be required by law, to determine compliance with this general permit and Department rules.
 - (i) The responsible official shall maintain any permitted facility or activity in good condition.

- (j) This general permit shall be effective until suspended, revoked, surrendered, expired, or nullified pursuant to Rule 62-213.300, F.A.C
- (k) Monitoring and Related Recordkeeping and Reporting Requirements.
 - 1. The responsible official shall maintain records of monitoring information that specify the date, place, time, and operating conditions of measurement; the methodology used; the company or entity which performed the monitoring; and the analytical results. These shall include all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.
 - 2. The responsible official shall retain records of all monitoring data and supporting information for a period of at least five years from the date of collection.
 - 3. The responsible official shall keep records in which all occurrences of deviations from any specific monitoring requirements shall be clearly identified. Reports of these deviations shall be submitted to the Department during facility inspections and also submitted with the annual compliance certification as required by paragraph (2)(m)2. The responsible official shall certify each report as true, accurate, and complete.
 - 4. The responsible official shall ensure that the Department is promptly notified of deviations from any specific monitoring requirements, including those attributable to upset conditions. Notification shall include the probable cause of such deviations and any corrective actions or preventive measures taken. Notification shall be provided within one working day of occurrence of the deviation and may be given by telephone.
- (l) Compliance Plan Requirements.
 - 1. For each applicable permit condition with which the facility is not in compliance at the time of giving notice to the Department of intent to use this general permit and for which the facility has not come into compliance within 30 days after the giving of such notice, the responsible official shall submit to the Department a compliance plan. The compliance plan shall contain measurable and enforceable milestones, including specific dates for completion of each milestone.
 - 2. The responsible official shall notify the Department in writing, within 15 days after the date for completion of each milestone, detailing the achievement of compliance, of progress achieved, requirements met or unmet, corrective measures adopted, and an explanation of any measures not met by the completion date for the compliance milestone. The responsible official shall certify that such notice is complete and accurate. Any deviation from the compliance plan shall constitute a violation of the permit condition and shall be subject to the provisions of Rule 62-213.300(2)(d), F.A.C.
- (m) Compliance Certification.
 - 1. For each applicable requirement with which the facility is in compliance, the responsible official shall submit a statement certifying such compliance to the Department annually. The responsible official shall certify each statement as true, accurate, and complete.
 - 2. The statement of compliance shall identify each term or condition of the permit with which the facility has remained in compliance during the period covered by the statement and shall specify the method used to demonstrate compliance. It shall identify each term or condition of the permit with which the facility has not been in continuous compliance during that reporting period. It shall also include the monitoring report required pursuant to paragraph (3)(k)3.
 - 3. For those terms or conditions which the facility has not been in continuous compliance during any reporting period, the statement shall include the exact period of non-compliance, actions taken to achieve compliance, and the method used to demonstrate compliance.
- (n) This general permit does not authorize any demolition or renovation of the facility or its parts or components which involves asbestos removal. This permit does not constitute a waiver of any of the

requirements of Chapter 62-257, F.A.C., and 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos, adopted and incorporated by reference in Rule 62-204.800, F.A.C.

- (o) Refrigerant Requirements. Any facility having appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A, Appendices A and B, which are adopted and incorporated by reference in Rule 62-204.800, F.A.C., shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, reporting and recordkeeping requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82, Subpart F, adopted and incorporated in Rule 62-204.800, F.A.C. No person shall knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82, Subpart F.
- (p) This general permit does not authorize any open burning nor does it constitute any waiver of the requirements of Chapter 62-256, F.A.C.
- (q) No person shall circumvent any air pollution control device or allow the emission of air pollutants without the proper operation of all applicable air pollution control devices.
- (r) All reports and notices submitted by the facility and all records required to be maintained according to Part II, Paragraph (2)(k)3., shall contain a certification statement signed by the responsible official that the documentation is true, accurate, and complete, based upon the information and belief formed after reasonable inquiry.

(3) Definitions. The following words and phrases, when used in this notification form, shall have the following meanings:

- (a) "Add-on Air Pollution Control Device" - Equipment installed in the ventilation system of chromium electroplating and anodizing tanks for the purpose of collecting and containing chromium emissions from the tank(s).
- (b) "Air Pollution Control Technique" - Any method, such as an add-on air pollution control device or a chemical fume suppressant, that is used to reduce chromium emissions from chromium electroplating and chromium anodizing tanks.
- (c) "Base Metal" - The metal or metal alloy that comprises the workpiece.
- (d) "Bath Component" - The trade or brand name of each component(s) in trivalent chromium plating baths. For trivalent chromium baths, the bath composition is proprietary in most cases. Therefore, the trade or brand name for each component(s) can be used; however, the chemical name of the wetting agent contained in that component must be identified.
- (e) "Chemical Fume Suppressant" - Any chemical agent that reduces or suppresses fumes or mists at the surface of an electroplating or anodizing bath; another term for fume suppressant is mist suppressant.
- (f) "Chromic Acid" - The common name for chromium anhydride (CrO_3).
- (g) "Chromium Anodizing" - The electrolytic process by which an oxide layer is produced on the surface of a base metal for functional purposes (e.g., corrosion resistance or electrical insulation) using a chromic acid solution. In chromium anodizing, the part to be anodized acts as the anode in the electrical circuit, and the chromic acid solution, with a concentration typically ranging from 50 to 100 grams per liter (g/L), serves as the electrolyte.
- (h) "Chromium Electroplating or Chromium Anodizing Tank" - The receptacle or container in which hard or decorative chromium electroplating or chromium anodizing occurs.
- (i) "Composite Mesh-pad System" - An add-on air pollution control device typically consisting of several mesh-pad stages. The purpose of the first stage is to remove large particles. Smaller particles are removed in the second stage, which consists of the composite mesh pad. A final stage may remove any retained particles not collected by the composite mesh pad.

- (j) "Construction" - The fabrication (on-site), erection, or installation of a chromium electroplating or anodizing unit.
- (k) "Decorative Chromium Electroplating" - The process by which a thin layer of chromium (typically 0.003 to 2.5 microns) is electrodeposited on a base metal, plastic, or undercoating to provide a bright surface with wear and tarnish resistance. In this process, the part(s) serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Typical current density applied during this process ranges from 540 to 2,400 amperes per square meter (A/m²) for the total plating periods of 0.5 to 5 minutes.
- (l) "Electroplating or Anodizing Bath" - The electrolytic solution used as the conducting medium in which the flow of current is accompanied by movement of metal ions for the purposes of electroplating metal out of the solution onto the workpiece or for oxidizing the base metal.
- (m) "Emission Standard" - For the purposes of this permit, the concentration of total chromium allowed to be emitted expressed in milligrams per dry cubic meter (mg/dscm) of air, or the allowable surface tension expressed in dynes per centimeter (dynes/cm).
- (n) "Emissions Unit" - Any part or activity of a facility that emits or has the potential to emit any air pollutant.
- (o) "Existing" - Any chromium electroplating or chromium anodizing tank the construction or reconstruction of which was commenced on or before December 16, 1993. An existing chromium electroplating or anodizing tank moved within a contiguous facility or to another facility under the same ownership will continue to be regulated as an existing tank.
- (p) "Facility" - The major or area source at which chromium electroplating or chromium anodizing is performed.
- (q) "Fiber-bed Mist Eliminator" - An add-on air pollution control device that removes contaminants from a gas stream through the mechanisms of inertial impaction and Brownian diffusion. These devices are typically installed downstream of another control device, which serves to prevent plugging, and consists of one or more fiber beds. Each bed consists of a hollow cylinder formed from two concentric screens; the fiber between the screens may be fabricated from glass, ceramic, plastic, or metal.
- (r) "Foam Blanket" - A type of chemical fume suppressant that generates a layer of foam across the surface of a solution when current is applied to that solution.
- (s) "Fresh Water" - Water, such as tap water, that has not been previously used in a process operation or, if the water has been recycled from a process operation, it has been treated and meets the effluent guidelines for chromium wastewater.
- (t) "Hard Chromium Electroplating or Industrial Electroplating" - A process by which a thick layer of chromium (typically 1.3 to 760 microns) is electrodeposited on a base material to provide a surface with functional properties such as wear resistance, a low coefficient of friction, hardness, and corrosion resistance. In this process, the part serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Hard chromium electroplating process is performed at current densities typically ranging from 1,600 to 6,500 A/m² for total plating periods of 20 minutes to 36 hours, depending upon the desired plate thickness.
- (u) "Hexavalent Chromium" - The form of chromium in a valence state of +6.
- (v) "Large, Hard Chromium Electroplating Facility" - A facility that performs hard chromium electroplating and has a maximum cumulative potential rectifier capacity greater than or equal to 60 million ampere-hours per year (A-hr/yr).
- (w) "Major Source" - Any affected source which emits or has the potential to emit 10 or more tons per year of any hazardous air pollutant or 25 or more tons per year of any combination of hazardous air pollutants.
- (x) "Maximum Cumulative Potential Rectifier Capacity" - The summation of the total installed rectifier capacity associated with all hard chromium electroplating tanks at a facility, expressed in amperes, multiplied by the maximum potential operating schedule of 8,400 hours per year and 0.7, which assumes

that electrodes are energized 70 percent of the total operating time. The maximum potential operating schedule is based on operating 8,400 hours per year.

- (y) "New" - Any chromium electroplating or chromium anodizing tank the construction or reconstruction of which commenced after December 16, 1993.
- (z) "Operating Parameter Value" - A minimum or maximum value established for a control device or process parameter which, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator is in continuous compliance with the applicable emission limitation or standard.
- (aa) "Packed-bed Scrubber" - An add-on air pollution control device consisting of a single or double packed bed that contains packing media on which the chromic acid droplets impinge. The packed-bed section of the scrubber is followed by a mist eliminator to remove any water entrained from the packed-bed section
- (bb) "Reconstruction" - The replacement of a chromium electroplating or anodizing tank; or replacement of any components of a chromium electroplating or anodizing system to such an extent that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new system.
- (cc) "Research or Laboratory Operation" - An operation whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and that is not involved in the manufacture of products for commercial sale in commerce, except in a de minimus manner.
- (dd) "Responsible Official" -
 1. For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.;
 2. For a partnership: a general partner;
 3. For a sole proprietorship: the owner;
 4. For a municipality, state, federal, or other public agency: either a principal executive officer or ranking official
- (ee) "Small, Hard Chromium Electroplating Facility" - A facility that performs hard chromium electroplating and has a maximum cumulative potential rectifier capacity less than 60 million A-hr/yr.
- (ff) "Source" - Each chromium electroplating or anodizing facility.
- (gg) "Stalagmometer" - A device used to measure the surface tension of a solution.
- (hh) "Surface Tension" - The property, due to molecular forces, that exists in the surface film of all liquids and tends to keep the liquid from spreading.
- (ii) "Tank Operation" - The time during which current and/or voltage is being applied to a chromium electroplating tank or chromium anodizing tank.
- (jj) "Tensiometer" - A device used to measure the surface tension of a solution.
- (kk) "Trivalent Chromium" - The form of chromium in a valence state of +3.
- (ll) "Trivalent Chromium Process" - The process used for electrodeposition of a thin layer of chromium onto a base material using a trivalent chromium solution instead of a chromic acid solution.
- (mm) "Wetting Agent" - A type of chemical fume suppressant that reduces the surface tension of a liquid.
- (nn) "Year or Yearly" - Any consecutive 12-month period of time.

(4) Basic Requirements.

- (a) The responsible official shall determine the eligibility of the facility for this permit and shall submit a completed Part III of this Chromium Electroplating and Anodizing Air General Permit Notification Form (DEP Form No. 62-213.900(5)) at least 30 days prior to beginning operations under this general permit.
- (b) The responsible official shall certify in the initial notification form and annually thereafter that the annual emissions of chromium do not exceed 10 tons per year. The total volume of emissions shall be determined by the procedures required in paragraph (5) of this Part.
- (c) New facilities shall comply with all applicable requirements upon start-up. Hard chromium electroplating facilities and chromium anodizing facilities which commenced operation on or before December 16, 1993, shall comply with the chromium emission standards of section (5) of this part of the notification form not later than January 25, 1997. Decorative chromium electroplating facilities which commenced operation on or before December 16, 1993, shall comply with the chromium emission standards of paragraph (5) of this Part not later than January 25, 1996.

(5) Chromium Emission Standards.

- (a) **Applicability of Emission Standards.** The emission standards in this section apply only during tank operation and during periods of startup and shutdown. The emission standards do not apply during periods of malfunction, but the work practice standards that address operation and maintenance specified in paragraph (6) of this Part must be followed during malfunctions. Chromium emission standards are based upon the type of chromium electroplating or anodizing performed, and the date of commencement of operations at the facility. If the chromium emissions from one or more chromium electroplating and/or chromium anodizing tanks on-site equal or exceed 10 tons per year (tpy), the facility shall comply with all additional requirements of 40 CFR Part 63, Subpart N, and must apply for a major source permit under Chapter 62-213, F.A.C., within 180 days of that occurrence. The facility shall operate and maintain equipment according to the manufacturer's specifications.
- (b) **Multiple Tanks Controlled by a Single Air Pollution Control Device.** If an owner or operator is controlling a group of tanks with a common add-on air pollution control device, the emission standard that applies to the group of affected sources is:
 - 1. The emission standard identified in paragraph (5)(c), (d), or (e) of this Part, if the affected sources are performing the same type of operation (e.g., hard chromium electroplating), are subject to the same emission standard, and are not controlled by an add-on air pollution control device also controlling nonaffected sources;
 - 2. The emission standard calculated according to the requirements of paragraph (5)(f) of this Part, if affected sources are performing the same type of operation, are subject to the same emission standard, and are controlled with an add-on air pollution control device that is also controlling nonaffected sources; and
 - 3. The emission standard calculated according to the requirements of paragraph (5)(f) of this Part, if affected sources are performing different types of operations, or affected sources are performing the same operations but are subject to different emission standards, and are controlled with an add-on air pollution control device that may also be controlling emissions from nonaffected sources.
- (c) **Standards for Hard Chromium Electroplating Tanks.**
 - 1. During tank operation, each owner or operator of an existing, new, or reconstructed affected source shall ensure that the maximum concentration of chromium emissions in the exhaust gas stream discharged to the atmosphere is no more than 0.015 milligrams of total chromium per dry standard cubic meter (mg/dscm) of ventilation air (6.6×10^{-6} grains per dry standard cubic foot [gr/dscf]) for large existing sources and all new sources; or 0.03 mg/dscm (1.3×10^{-5} gr/dscf) for small existing sources.

2. Alternative Standard. An existing source owner or operator with a maximum cumulative potential rectifier capacity of 60 million A-hr/yr or more may choose to demonstrate that they operate a small, hard chromium electroplating facility by maintaining records that show that the facility's previous annual actual rectifier capacity was less than 60 million A-hr/yr, by using nonresettable A-hr meters and keeping monthly records of actual A-hr usage for each 12-month rolling period following the compliance date in accordance with paragraph (12)(l) of this Part. The actual cumulative rectifier capacity for the previous 12-month rolling period shall be tabulated monthly by adding the capacity for the current month to the capacities for the previous 11 months.
- (d) Standards for Decorative Chromium Electroplating Tanks Using a Chromic Acid Bath and Chromium Anodizing Tanks. During tank operation, the owner or operator shall control chromium emissions discharged to the atmosphere from that affected source by either limiting the concentration of total chromium in the exhaust gas stream to 0.01 mg/dscm (4.4×10^{-6} gr/dscf); or by reducing the surface tension of the electroplating or anodizing bath to 45 dynes per centimeter (dynes/cm) (3.1×10^{-3} pound-force per foot [lb-f/ft]), if a chemical fume suppressant containing a wetting agent is used.
- (e) Standards for Decorative Chromium Electroplating Tanks Using a Trivalent Chromium Bath.
1. Each owner or operator of an existing, new, or reconstructed decorative chromium electroplating tank that uses a trivalent chromium bath incorporating a wetting agent as an ingredient is subject to the recordkeeping requirements of paragraph (12)(n) of this Part and is exempt from the work practice requirements of paragraph (6) and the continuous compliance monitoring requirements in paragraph (10) of this Part. The wetting agent must be an ingredient in the trivalent chromium bath components purchased from vendors.
 2. Each owner or operator of an existing, new, or reconstructed decorative chromium electroplating tank that uses a trivalent chromium bath which does not incorporate a wetting agent as a bath ingredient is subject to the requirements of section (5)(d) of this part of the notification form.
 3. Each owner or operator of an existing, new, or reconstructed decorative chromium electroplating tank that had been using a trivalent chromium bath that incorporates a wetting agent and ceases using this type of bath must comply with the applicable emission standards within 1 year of switching bath operations.
- (f) Special Compliance Provisions for Multiple Sources Controlled by a Common Add-on Air Pollution Control Device.
1. This section identifies procedures for measuring the outlet chromium concentration from an add-on air pollution control device that is used to control multiple sources that may or may not include sources not affected by this general permit.
 2. When multiple affected sources performing the same type of operation (e.g., all are performing hard chromium electroplating) subject to the same emission standard, and are controlled with an add-on air pollution control device that is not controlling emissions from any other type of affected operation or from any nonaffected sources, the applicable emission standard identified in this section must be met at the outlet of the add-on air pollution control device.
 3. When multiple affected sources performing the same type of operation and subject to the same emission standard are controlled with a common add-on air pollution control device that is also controlling emissions from sources not affected by these standards, the following procedures shall be used to determine compliance with the applicable emission standard in this section.
 - a. Calculate the cross-sectional area of each inlet duct (i.e., uptakes from each hood), including those not covered by this permit.
 - b. Determine the total sample time per test run by dividing the total inlet area from all tanks connected to the control system by the total inlet area for all ducts associated with affected

sources, and then multiply this number by 2 hours. The calculated time is the minimum sampling time required per test run.

- c. Perform Method 306 testing and calculate an outlet mass emission rate.
- d. Determine the total ventilation rate from the affected sources by using the following equation:

$$VR_{total} \times IDA_i / \text{sum of } IA_{total} = VR_{inlet}$$

where VR_{total} is the average total ventilation rate in dscm/min for the three test runs as determined at the outlet by means of Method 306 testing; IDA_i is the total inlet area for all ducts associated with affected sources; IA_{total} is the sum of all inlet duct areas from both affected and nonaffected sources; and VR_{inlet} is the total ventilation rate from all inlet ducts associated with affected sources.

- e. Establish the allowable mass emission rate of the system (AMR_{system}) in milligrams of total chromium per hour (mg/hr) using the following equation:

$$\text{sum of } VR_{inlet} \times EL \times 60 \text{ minutes/hours} = AMR_{system}$$

where sum of VR_{inlet} is the total ventilation rate in dscm/min from the affected sources, and EL is the applicable emission standard in mg/dscm from paragraph (5)(c), (d), or (e) of this Part. The allowable mass emission rate (AMR_{system}) calculated from the equation above should be equal to or less than the outlet three-run average mass emission rate determined from Method 306 testing in order for the source to be in compliance with the standard.

4. When multiple affected sources performing different types of operations (e.g., hard chromium electroplating, decorative chromium electroplating, or chromium anodizing) are controlled by a common add-on air pollution control device that may or may not also be controlling emissions from nonaffected sources, or if the affected sources controlled by the common add-on air pollution control device perform the same operation but are subject to different standards (e.g., a new hard chromium electroplater and an existing, small hard chromium electroplater), the following procedures should be followed to determine compliance with the applicable emission standard.

- a. Follow the steps outlined in paragraph (5)(f)3.a. through (5)(f)3.c. of this Part.
- b. Determine the total ventilation rate for each type of affected source using the following equation:

$$VR_{total} \times IDA_{ia} / \text{sum of } IA_{total} = VR_{inlet,a}$$

where VR_{total} is the average total ventilation rate in dscm/min for the three test runs as determined at the outlet by means of the Method 306 testing and IDA_{ia} is the total inlet duct area for all ducts conveying chromic acid from each type of affected source performing the same operation, or each type of affected source subject to the same emission standard and IA_{total} is as previously defined in paragraph (5)(f)3.d. of this Part. $VR_{inlet,a}$ is the total ventilation rate from all inlet ducts conveying chromic acid from each type of affected source performing the same operation, or each type of affected source subject to the same emission standard.

- c. Establish the allowable mass emission rate in mg/hr for each type of affected source that is controlled by the add-on air pollution control device using the following equations as appropriate:

$$VR_{hcl} \times EL_{hcl} \times 60 \text{ minutes/hour} = AMR_{hcl}$$

$$VR_{hcl2} \times EL_{hcl2} \times 60 \text{ minutes/hour} = AMR_{hcl2}$$

$$VR_{dc} \times EL_{dc} \times 60 \text{ minutes/hour} = AMR_{dc}$$

$$VR_{ca} \times EL_{ca} \times 60 \text{ minutes/hour} = AMR_{ca}$$

where "hc" applies to the total of ventilation rates for all hard chromium electroplating tanks subject to the same emission standard, "dc" applies to the total of ventilation rates for the decorative chromium electroplating tanks, "ca" applies to the total of ventilation rates for the chromium anodizing tanks, and EL is the applicable emission standard in mg/dscm referenced in paragraph (5)(c), (d), or (e) of this Part. There are two equations for hard chromium electroplating tanks because different emission standards may apply (e.g., a new tank versus an existing, small tank).

- d. Establish the allowable mass emission rate (AMR) in mg/hr for the system using the following equation, including each type of affected source as appropriate:

$$AMR_{hc1} + AMR_{hc2} + AMR_{dc} + AMR_{ca} = AMR_{system}$$

The allowable mass equation rate calculated from this equation should be equal to or less than the outlet three-run average mass emission rate determined from Method 306 testing in order for the source to be in compliance with the standards.

5. Each owner or operator that uses the special compliance provisions of this section to demonstrate compliance with the emission standards of paragraph (5) of this Part shall submit the measurements and calculations to support these compliance methods with the notification of compliance status required by this permit.
6. Each owner or operator that uses the special compliance provisions of this section to demonstrate compliance with the emission standards shall repeat these procedures if a tank is added or removed from the control system, regardless of whether that tank is a nonaffected source. If the new nonaffected tank replaces an existing nonaffected tank of the same size and is connected to the same control system through the same size inlet duct, this procedure does not have to be repeated.

(6) Work Practice Standards. The work practice standards of this section address operation and maintenance practices. All owners and operators subject to the emission standards in paragraph (5)(c) and (d) are subject to these work practice standards, unless otherwise noted.

- (a) Composite Mesh-pad Systems and Packed-bed Scrubbers with Composite Mesh-pad Systems. Owners or operators of these devices shall:
1. Visually inspect the device on a quarterly basis, to ensure there is proper drainage, no chromic acid buildup on the pads, and no evidence of chemical attack.
 2. Visually inspect back portion of the mesh closest to the fan on a quarterly basis for possible breakthrough of chromic acid mist.
 3. Visually inspect duct work from tank to the control device for leakage on a quarterly basis.
 4. Perform washdown of the composite-mesh pads in accordance with the manufacturer's recommendations.
- (b) Packed-bed Scrubbers. Owners or operators of these devices shall perform the following work practices:
1. Visually inspect the device on a quarterly basis, to ensure there is proper drainage, no chromic acid buildup on the packed beds, and no evidence of chemical attack.
 2. Visually inspect the back portion of the chevron blade mist eliminator on a quarterly basis for dryness and possible breakthrough of chromic acid mist.
 3. Visually inspect duct work from tank to the control device for leakage on a quarterly basis.
 4. Add fresh makeup water to the top of the packed bed whenever makeup water is added.
- (c) Fiber-bed Mist Eliminator. Owners or operators of these devices shall:
1. Visually inspect the fiber-bed unit and prefiltering device on a quarterly basis to ensure there is proper drainage, no chromic acid buildup in the units, and no evidence of chemical attack.

2. Visually inspect ductwork from the tank or tanks to the control device for leakage on a quarterly basis.
 3. Perform washdown of fiber elements in accordance with the manufacturer's recommendations.
- (d) Owners or operators of air pollution control devices not listed in this section shall submit a proposal for an alternate work practice plan to the Department for approval.

(7) Operation and Maintenance Plan.

- (a) The owner or operator of an affected source subject to the work practices of paragraph (6) of this Part shall prepare an operation and maintenance plan to be implemented no later than the compliance date. The plan shall incorporate the requirements of paragraph (2) of this Part and the following elements:
1. Operation and maintenance criteria for the affected source, the add-on air pollution control device if such a device is used to comply with the emission standards, and the process and control system monitoring equipment; and shall include a standardized checklist to document the operation and maintenance of this equipment.
 2. For sources using an add-on air pollution control device or monitoring equipment to comply with this rule, work practice standards for that device or monitoring equipment, as identified in paragraph (6) of this Part.
 3. If the specific equipment used is not identified in paragraph (6) of this Part, the plan shall incorporate proposed work practice standards. These proposed work practice standards shall be submitted to the Department for approval as part of the submittal required under paragraph (13) of this Part.
 4. Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur; and
 5. A systematic procedure for identifying malfunctions of process equipment, add-on air pollution control devices and process and control system monitoring equipment, and for implementing corrective actions to address such malfunctions.
- (b) 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.
- (c) 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 Department for the life of the affected source or until the source is no longer subject to the provisions of this permit. 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 Department for a period of 5 years after each revision to the plan.
- (d) To satisfy the requirements of this permit, the owner or operator may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans, provided the alternative plans meet the requirements of this permit.
- (e) The standards in this section that apply to chromic acid baths shall not be met by using a reducing agent to change the form of chromium from hexavalent to trivalent.

(8) Compliance Dates.

- (a) A new or reconstructed affected source that has an initial startup after December 16, 1993, but before January 25, 1995, shall follow the compliance schedule of this permit.

- (b) An owner or operator of an existing hard chromium electroplating tanks or tanks located at a small facility that increases its maximum cumulative potential rectifier capacity, or its actual cumulative rectifier capacity, such that the facility becomes a large, hard chromium electroplating facility must comply with the requirements of paragraph (5)(c)1. of this Part for all hard chromium electroplating tanks at the facility no later than 1 year after the month in which monthly records required by paragraph (5)(c)2. and (12)(f) of this Part show that the large designation is met.
- (c) An owner or operator of a decorative chromium electroplating tank that uses a trivalent chromium bath that incorporates a wetting agent, and then ceases using the trivalent process, must comply with the requirements of this permit now applicable to the tank within 1 year of switching bath operations.

(9) Initial Compliance Demonstration. An owner or operator of an affected source subject to the requirements of this permit shall conduct an initial performance test using the procedures and test methods listed in Appendix A of 40 CFR Part 63, unless the following conditions are met:

- (a) The affected source is a decorative chromium electroplating tank or chromium anodizing tank; using a wetting agent in the plating or anodizing bath to inhibit chromium emissions from the affected source; and
- (b) The owner or operator complies with the applicable surface tension limit of paragraph (5)(d) of this Part, as demonstrated through the continuous compliance monitoring requirements by paragraph (10)(e) of this Part.

(10) Monitoring to Demonstrate Continuous Compliance.

- (a) The owner or operator of a composite mesh-pad system shall determine the outlet chromium concentration using the test methods and procedures in paragraph (11) of this Part and shall determine during the initial performance test the pressure drop across the system obtained when the system was in compliance with all applicable standards, and shall establish that pressure drop value as the site-specific operating parameter for demonstrating continuous compliance. An owner or operator may choose to conduct multiple performance tests to establish a range of permissible pressure drop values, or average the pressure drops measured over three test runs of one performance test and accept plus or minus 1 inch of water column from this value as the permissible range.
 - 1. On and after the date on which the initial performance test is required to be completed, the owner or operator of an affected source or group of affected sources under common control shall monitor and record the pressure drop across the composite mesh-pad system daily during operation.
 - 2. To be in compliance with the standards, the composite mesh-pad system shall operate within the permissible range of water column height established during the initial performance test, or shall be operated within the range of permissible values established during multiple performance tests.
- (b) The owner or operator of a packed-bed scrubber system shall determine the outlet chromium concentration using the test methods and procedures in paragraph (11) of this Part and shall determine during the initial performance test the pressure drop across the system and the velocity pressure at the common inlet of the scrubber obtained when the system was in compliance with all applicable standards, and shall establish the measured pressure drop and velocity pressure values as the site-specific operating values for demonstrating continuous compliance. The owner or operator may choose to conduct multiple performance tests to establish a range of permissible operating parameter values. Alternatively, the owner or operator shall set as the permissible value the average pressure drop and inlet velocity pressure measured over three test runs of one performance test, and accept values within 1 inch of water column from the pressure drop value and inlet velocity pressure readings within 10 percent of the established value.
 - 1. On a daily basis, the owner or operator of an affected source or group of affected sources shall monitor and record the velocity pressure at the inlet to the packed-bed scrubber and the pressure drop across the scrubber system.

2. To be in compliance with the standards, the scrubber system shall be operated within plus or minus 10 percent of the velocity pressure value and within plus or minus 1 inch of water column of the pressure drop value established during the initial performance test, or within the range of permissible operating parameter values established during multiple performance tests.
- (c) The owner or operator of a packed-bed scrubber/composite mesh-pad system shall comply with the monitoring requirements for composite mesh-pad systems as identified in paragraph (10)(a) of this Part.
- (d) The owner or operator of a fiber-bed mist eliminator shall determine the outlet chromium concentration using the test methods and procedures in paragraph (11) of this Part and shall determine during the initial performance test the pressure drop across the fiber-bed mist eliminator and the pressure drop across the control device installed upstream of the fiber bed obtained when the system was in compliance with all applicable standards, and shall establish the measured pressure drop across the fiber-bed mist eliminator and the pressure drop across the upstream control device as the site-specific operating parameters for demonstrating continuous compliance. An owner or operator may conduct multiple performance tests to establish a range of permissible operating parameter values. Alternatively, the owner or operator may set as the compliant value the average pressure drop measured over three test runs of one performance test, and accept plus or minus 1 inch of water column for the pressure drop value as the permissible range.
1. On a daily basis, the owner or operator of an affected source or group of affected sources shall monitor and record the pressure drop across the fiber-bed mist eliminator, and the pressure drop across the upstream control device.
 2. To be in compliance with the permit, the scrubber system shall be operated within plus or minus 1 inch of water column of the pressure drop value established during the initial performance test, or within the range of permissible operating parameter values established during multiple performance tests.
- (e) The owner or operator of a chromium electroplating or chromium anodizing tank that incorporates a wetting agent or combination of a wetting agent and foam blanket fume suppressant shall determine the outlet chromium concentration using the test methods and procedures in paragraph (11) of this Part and shall determine during the initial compliance test the maximum surface tension of the bath using Method 306B of 40 CFR Part 63, Appendix A. Alternatively, in lieu of establishing the maximum surface tension during the performance test, the owner or operator shall accept 45 dynes/cm as the maximum surface tension value for compliance with the applicable emission limitation. However, the owner or operator is exempt from conducting a performance test only if the criteria of paragraph (9)(a) of this Part are met.
1. On or after the date on which the initial performance test is required to be completed, 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 lieu of the initial performance test demonstration shall constitute noncompliance with the standards. The surface tension shall be monitored according to the following schedule:
 2. 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 Part 63.
 3. Monitoring frequency shall be decreased if no exceedances have occurred. 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. If no exceedances occur during 40 hours of tank operation, surface tension measurement shall be conducted once every 8 hours of tank operation. If no exceedances occur during the following 40 hours of tank operation, surface tension measurement shall be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs.
 4. Once an exceedance occurs as indicated through surface tension monitoring, the original schedule of once every 4 hours must be resumed. A subsequent decrease in frequency shall follow the schedule specified in paragraph (10)(e)3. of this Part.

5. Once a 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.
- (f) The owner or operator of an affected source which uses a foam blanket-type fume suppressant shall determine the outlet chromium concentration using the test methods and procedures in paragraph (11) of this Part and shall determine during the initial performance test the minimum thickness of the foam blanket that corresponds with the tank being in compliance with all applicable requirements. In lieu of establishing the minimum foam thickness during the performance test, the owner or operator may accept 1 inch (2.54 cm) as the minimum foam blanket thickness that corresponds to compliance with the applicable emission standard. All foam blanket measurements must be taken in close proximity to the workpiece or cathode area in the plating tank(s).
1. On and after the date on which the initial performance test is required to be completed, the owner or operator of an affected source shall measure the foam blanket thickness of the electroplating or anodizing bath. Operation of the affected source at a foam blanket thickness less than the value established during the performance test or a default value of 1 inch shall constitute noncompliance with the standards. The foam blanket thickness shall be measured according to the following schedule:
 2. The foam blanket thickness shall be measured hourly during tank operation.
 3. Monitoring frequency shall be decreased if there have been no exceedances. The foam blanket thickness shall be measured once every hour of tank operation for the first 40 hours of tank operation after the compliance date. If no exceedances have occurred during 40 hours of tank operation, foam blanket thickness shall be measured once every 4 hours of tank operation. If no exceedances have occurred during the following 40 hours of tank operation, foam blanket thickness shall be measured once every 8 hours of tank operation on an ongoing basis, until an exceedance occurs. The minimum frequency of monitoring allowed by this permit is once per 8 hours of tank operation.
 4. Once an exceedance occurs as indicated through foam blanket thickness monitoring, the original hourly monitoring schedule must be resumed. A subsequent decrease in frequency shall follow the schedule laid out in paragraph (10)(f)3. of this Part.
 5. Once a bath solution is drained from the affected tank and a new solution added, the original hourly monitoring schedule must be resumed, with a decrease in monitoring frequency allowed following the procedures of paragraph (10)(f)3. of this Part.
- (g) Owners and operators of affected sources that use both a fume suppressant and an add-on control device to comply with the applicable emission standard are subject to the monitoring requirements identified in section (10) and the work practice standards of paragraph (6) of this Part, for each of the control techniques used.

(11) Performance Test Requirements and Test Methods. Performance test requirements shall be conducted using the test methods and procedures specified in Appendix A of 40 CFR Part 63, including Methods 306, 306A, 306 B, CARB Method 425, and any alternative test methods if validated using Method 301, Appendix A of Part 63 and if approved by the Department. The performance test results shall be documented in complete test reports that contain the information required by that section and submitted to the Department within 90 days following completion of the test.

(12) Recordkeeping Requirements. The owner or operator of an affected source subject to the provisions of this permit shall maintain the following records on-site for a period of 5 years:

- (a) Inspection records for the add-on air pollution control device and monitoring equipment, to document that the inspection and maintenance required by the work practice standards in paragraph (6) of this Part. The record can take the form of a checklist and shall identify the device inspected, the date of the inspection, and any actions taken to correct deficiencies found during the inspection.

- (b) Records of all maintenance performed on the affected source, the add-on air pollution control device, and monitoring equipment.
- (c) Records of the occurrence, duration and cause (if known) of each malfunction of process, add-on air pollution control, and monitoring equipment.
- (d) Records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan.
- (e) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the operation and maintenance plan.
- (f) Test results of all performance tests.
- (g) All measurements necessary to determine the conditions of performance tests.
- (h) Records of monitoring data required by paragraph (10) of this Part that are used to demonstrate compliance with the standard including the date and time the data are collected.
- (i) 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.
- (j) The specific identification of each period of excess emissions that occurs during periods other than malfunction of the process, add-on air pollution control, or monitoring equipment.
- (k) The total process operating time of the affected source during the reporting period.
- (l) Records of the actual cumulative rectifier capacity of hard chromium electroplating tanks at a facility expended during each month of the reporting period, and the total capacity expended to date for a reporting period, if the owner or operator is using the actual cumulative rectifier capacity to determine facility size in accordance with paragraph (5)(c)2. of this Part.
- (m) For sources using fume suppressants, records of the date and time that fume suppressants are added to the electroplating or anodizing bath.
- (n) For sources using wetting agents, records of the bath components purchased.

(13) Reporting Requirements.

- (a) Notification of Performance Test. The owner or operator of an affected source shall notify the Department in writing of his or her intention to conduct a performance test at least 60 calendar days before the test is scheduled to begin to allow the Department to have an observer present during the test. Observation of the performance test by the Department is optional. In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement, the owner or operator shall notify the Department within 5 days prior to the scheduled performance test date and specify the date when the performance test has been rescheduled.
- (b) Notification of Compliance Status. Each time a notification is required under this permit, the owner or operator of an affected source shall submit to the Department 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 permit. The notification shall list for each affected source:
 1. The applicable emission standard and the methods that were used to determine compliance with the standard;
 2. If a performance test is required, the test report documenting the results of the performance test, which contains the elements required by paragraph (11) of this Part;
 3. The type and quantity of hazardous air pollutants emitted by the source reported in mg/dscm or mg/hr if the source is complying with the provisions of paragraph (5) of this Part. For sources not

required to conduct a performance test in accordance with paragraph (9) of this Part, the surface tension measurement may fulfill this requirement;

4. For each monitored parameter for which a permissible value is to be established under section (10) of this part of the notification form; the specific operating parameter value, or range of values that corresponds to compliance with the applicable emission standard;
 5. The methods that will be used to determine continuous compliance, including a description of monitoring and reporting requirements, if methods differ from those identified in this permit;
 6. A description of the air pollution control technique for each emission point;
 7. A statement that the owner or operator has completed and has on file the operation and maintenance plan as required by the work practice standards in paragraph (6) of this Part; and
 8. If the owner or operator is determining facility size based on actual cumulative rectifier capacity, records to support that the facility is classified as small. For existing sources, records from any 12-month period preceding the compliance date shall be used or a description of how operations will change to meet a small designation shall be provided. For new sources, records of projected of projected rectifier capacity for the first 12-month period of tank operation shall be used;
- (c) For sources required to conduct a performance test by paragraph (10) of this Part, the notification of compliance status shall be submitted to the Department no later than 90 calendar days following completion of the initial performance test and shall be submitted as part of the notification of compliance status.
- (d) For sources that are not required to complete a performance test in accordance with paragraph (9) of this Part, the notification of compliance status shall be submitted to the Department no later than 30 calendar days after the compliance test.
- (e) Reports of Exceedances. Semiannual reports shall be prepared and submitted to the Department on the following:
1. The total duration of excess emissions (as indicated by the monitoring data collected by the owner or operator of the affected source in accordance with paragraph (10) of this Part, if 1 percent or greater of the total operating time for the reporting period; and
 2. The total duration of malfunctions of the add-on air pollution control device and monitoring equipment if 5 percent or greater of the total operating time.

CHROMIUM ELECTROPLATING AND ANODIZING
AIR GENERAL PERMIT NOTIFICATION FORM

RECEIVED
JUL 30 2001
Bureau of Air Monitoring
& Mobile Sources

Part III. Notification of Intent to Use General permit

Prior to filling out this form, please read the instructions provided at the end of the form. Once completed form to the address listed in the instructions and keep a copy of the form for your files.

Facility Name and Location

1. Facility Owner/Company Name (Name of corporation, agency, or individual owner): M & P Plating, Inc.
2. Site Name (For example, plant name or number): M & P Plating, Inc. - St. Petersburg
3. Hazardous Waste Generator Identification Number: 1300333-001-AG
4. Facility Location: Street Address: 700 - 37th Street South City: St. Petersburg County: Pinellas Zip Code: 33711
5. Facility Identification Number (DEP Use ONLY - do not fill in):

Responsible Official

6. Name and Title of Responsible Official: Name: Mr. Peter Valantiejus Title: Co-Owner
7. Responsible Official Mailing Address: Organization/Firm: M & P Plating, Inc. Street Address: 700 - 37th Street South City: St. Petersburg County: Pinellas Zip Code: 33711
8. Responsible Official Telephone Number: Telephone: (727) 327-5118 Fax: () -

Facility Contact (If different from Responsible Official)

9. Name and Title of Facility Contact (For example, plant manager): Mr. Peter Valantiejus, Owner
10. Facility Contact Address: Street Address: 700 - 37th Street South City: St. Petersburg County: Pinellas Zip Code: 33711
11. Facility Contact Telephone Number: Telephone: (727) 327-5118 Fax: () -

Facility Information

1.a. Provide the information below for each hard electroplating machine at the facility. Indicate the type of machine, the date of its purchase, and the date the control device was installed, if applicable.

HARD CHROMIUM PLATING TANKS

DATE PURCHASED	UNIT CLASS (circle one)	DATE CNTRL DEVICE INSTALLED	CONTROL DEVICE (see key)	APPLICABLE STANDARD (see key)
1/85	New/Existing	1/85	PBS	b
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			

Key for Control Device Type

- PBS = packed-bed scrubber
- CMP = composite mesh pad
- PBS/CMP = packed-bed scrubber and composite mesh pad
- FS = fume suppressant only
- FS/WA = fume suppressant with a wetting agent
- FM = fiber-bed mist eliminator
- WA = wetting agent

Applicable Standard Key

- a = 0.03 mg/dscm
- b = 0.015 mg/dscm
- c = alternative standard for multiple tanks under common control

Is the facility's cumulative potential rectifier capacity greater than 60 million ampere-hours per year?

Yes No

1.b. Provide the information below for each decorative electroplating or anodizing machine at the facility. Indicate the type of machine, the date of its purchase, and the date the control device was installed, if applicable.

DECORATIVE AND ANODIZING TANKS

DATE PURCHASED	UNIT CLASS (circle one)	DATE CNTRL DEVICE INSTALLED	CONTROL DEVICE (see key)	APPLICABLE STANDARD (see key)
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			

Key for Control Device Type

PBS = packed-bed scrubber
CMP = composite mesh pad
PBS/CMP = packed-bed scrubber and composite mesh pad
FS = fume suppressant only
FS/WA = fume suppressant with a wetting agent
FM = fiber-bed mist eliminator
WA = wetting agent

Applicable Standard Key

x = 0.01 mg/dscm
y = 45 dynes/cm
z = records of bath components
(trivalent Cr tanks only)
c = alternative standard for multiple tanks
under common control

2. Indicate the date by which the facility must meet the requirements of paragraph (5) of Part II:
(Note: if your facility contains both hard and decorative plating or anodizing units, you must check each applicable date)

January 25, 1996 January 25, 1997

3. Indicate how the facility will fulfill the compliance demonstration:

The facility will conduct an initial performance test (**FDEP has initial test on file, this is a renewal permit and facility keeps required records**)

The facility will use a wetting agent to reduce emissions and will meet the existing surface tension limit in No. 1 above.

4. Equipment Monitoring and Recordkeeping Information

Check all logs which are required to be kept on-site in accordance with the requirements of this general permit:

- (a) Equipment maintenance
- (b) Equipment inspection and repair
- (c) Equipment malfunctions
- (d) Operation and maintenance checklist
- (e) Instrument calibration
- (f) Start-up, shutdown, malfunction plan
- (used during initial performance test)
- (g) Performance test results
- (h) Equipment monitoring
- (i) Excess emissions
- (j) Operating periods
- (k) Rectifier capacity
- (l) Fume suppressant records
- (m) Purchase records of wetting agent components

5. Surrender of Existing DEP Air Permit(s)

Please indicate with an "X" the appropriate selection:

I hereby surrender all existing DEP air permits authorizing operation of the facility indicated in this notification form; the permit number(s) are:

1030333-001-AG

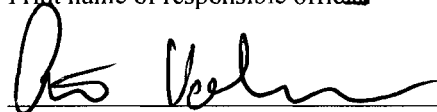
No DEP air permits currently exist for the operation of the facility indicated in this notification form.

Responsible Official Certification

I, the undersigned, am the responsible official, as defined in Part II of this form, of the facility addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I agree to operate and maintain the air pollutant emissions units and air pollution control equipment described above so as to comply with all terms and conditions of this general permit as set forth in Part II of this notification form.

I will promptly notify the Department of any changes to the information contained in this notification.

Peter Valantiejus
Print name of responsible official


Signature

7-18-01
Date

TABLE OF CONTENTS

I. FACILITY LOCATION

II. FACILITY LAYOUT

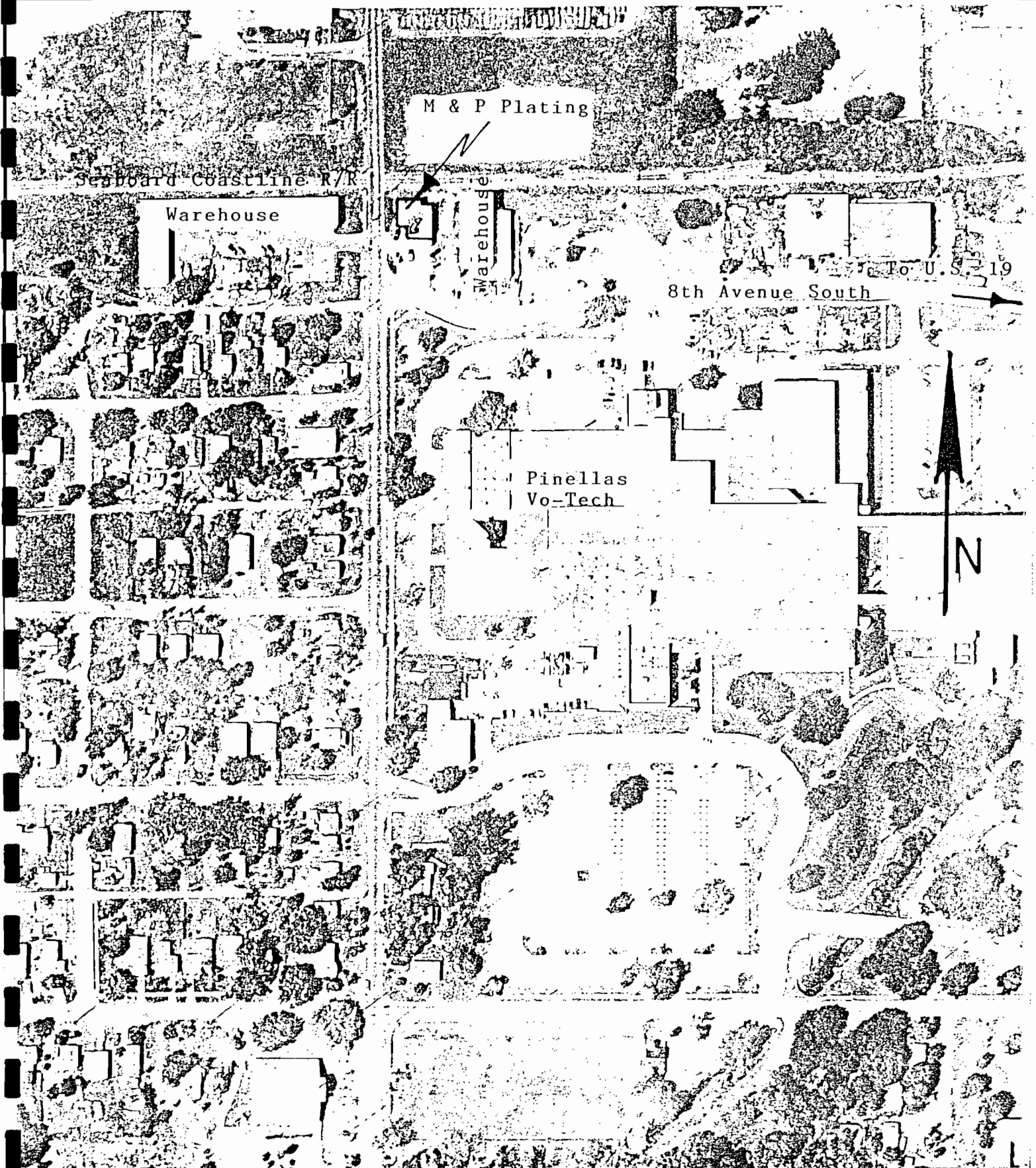
III. SUPPLEMENTAL INFORMATION

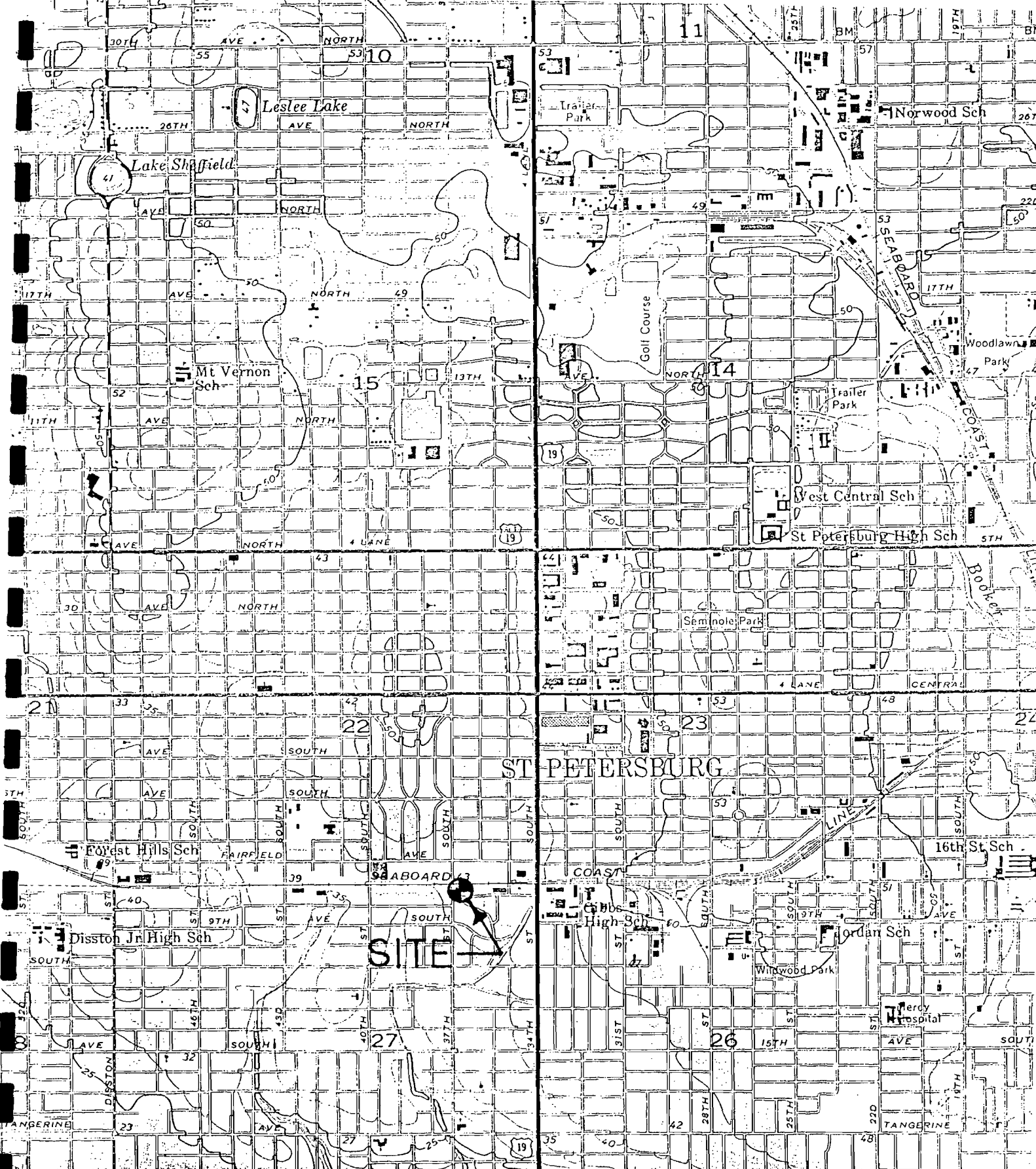
I. FACILITY LOCATION



M & P Plating, Inc.

Site Plan

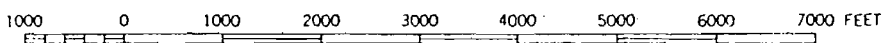
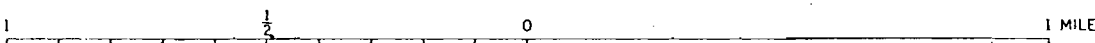




(PASS-A-GRILLE BEACH)
4439 11 NW

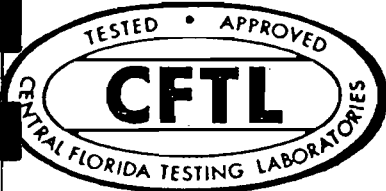
TERRA CEIA 15 MI.
BRADENTON 21 MI.

SCALE 1:24000



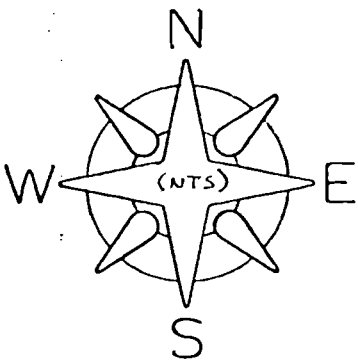
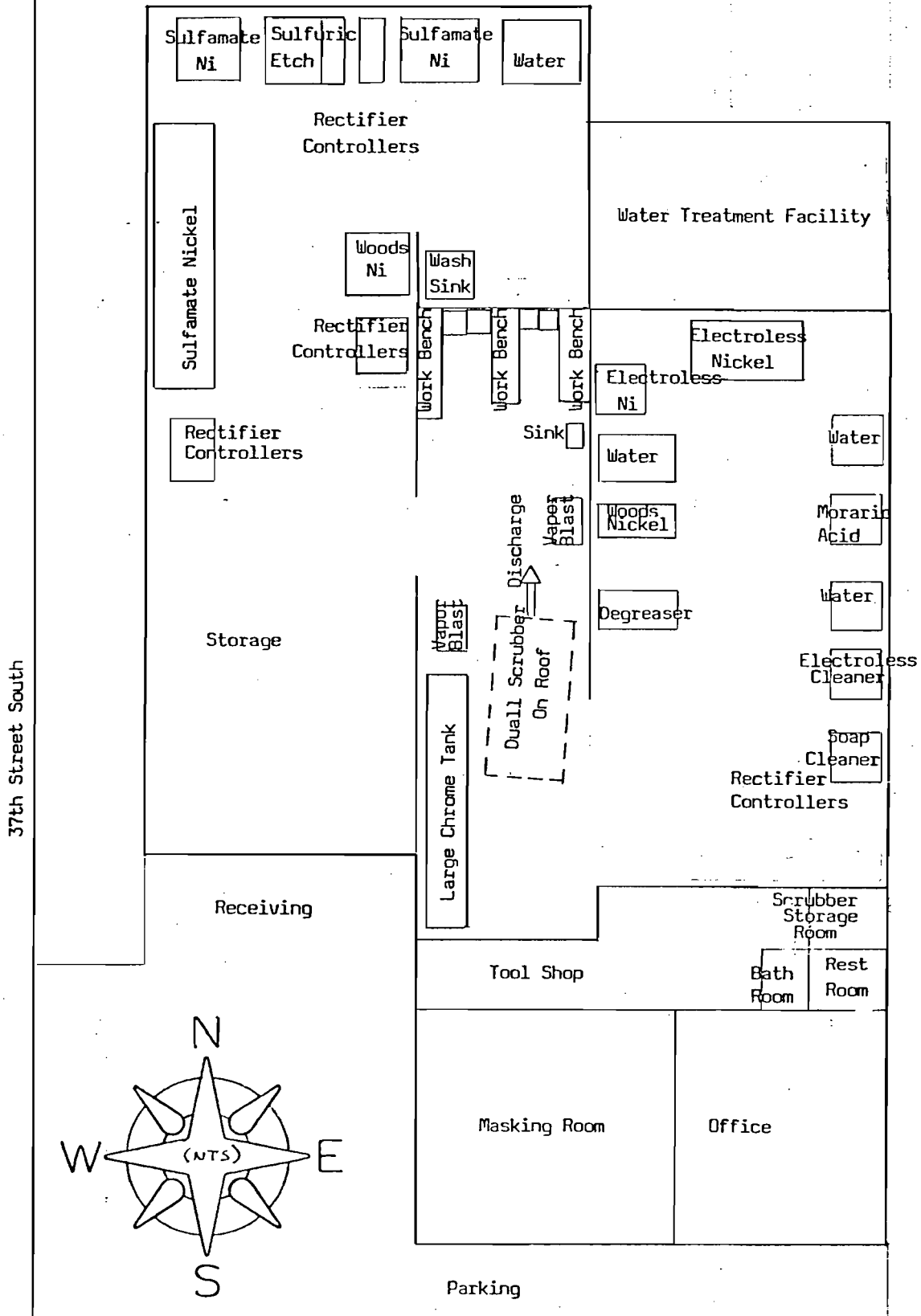
FLORIDA

II. FACILITY LAYOUT



M & P Plating, Inc.

Building Lay-out



8th Avenue South

III. SUPPLEMENTAL INFORMATION

DUAL FUME SCRUBBER MODEL F-101

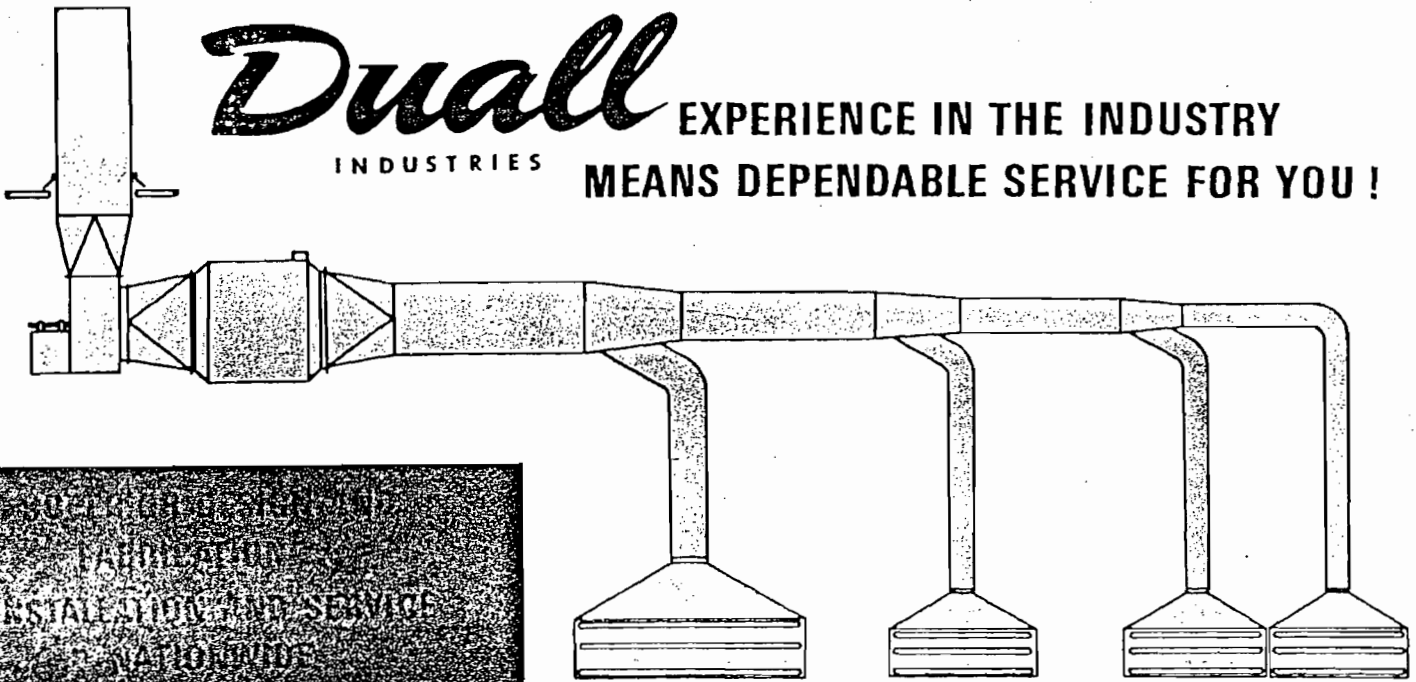
SCRUBBER OPERATING PARAMETERS

1. Scrubber Manufacturer: Neihaus Brothers, Inc.
2. Scrubber Model No: Model No. B
3. Design Flow Rate: 3,000 ACFM.
4. Gas Flow Rate: 40.0 fps.
5. Scrubber Pressure Drop: 4.0" w.g.
6. Efficiency Rating at
Design Capacity: 95.0 % (+) - Chromic Acid Mist
7. Gas Temperature: Ambient (85-90)
8. Scrubber Stack Height: 5.0 feet
9. Water Vapor Volume: 3.5 %
10. Inlet Water Pressure: 9.0 - 25.0 lbs/min.

Duall

INDUSTRIES

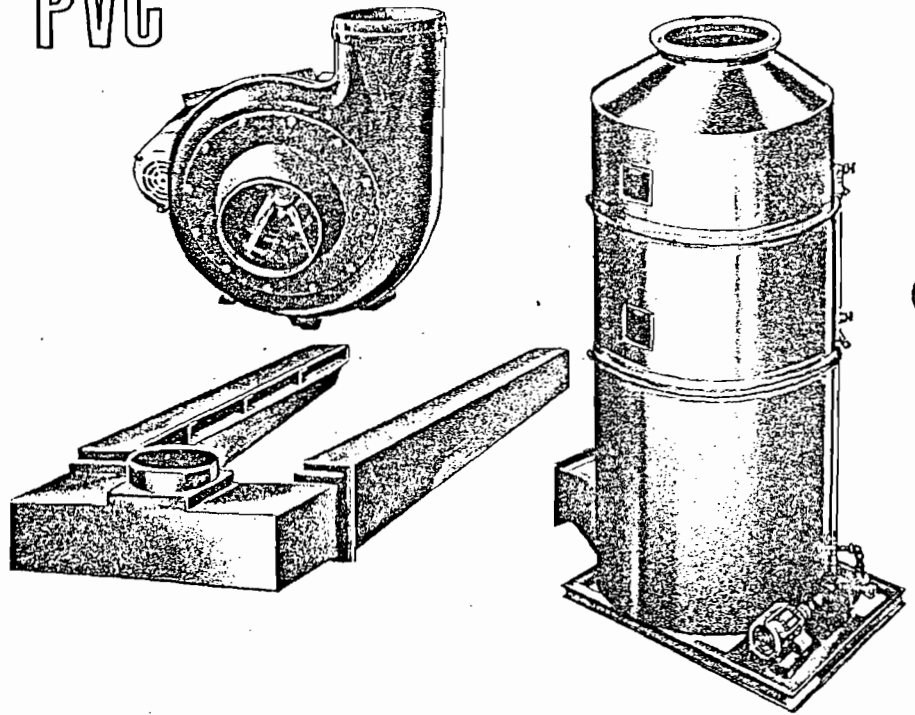
EXPERIENCE IN THE INDUSTRY
MEANS DEPENDABLE SERVICE FOR YOU!



SOFTWARE ENGINEERING
FABRICATIONS
INSTALLATION AND SERVICE
NATIONWIDE

- CENTRIFUGAL FANS
- FUME WASHERS
- MOISTURE EXTRACTORS
- HOODS
- DUCT
- FITTINGS
- SEMI-ENCLOSED LAB VENTILATION CONSOLES
- CLEANING/PLATING CONSOLES
- GRILLES
- MIST ELIMINATORS
- STACK CAPS
- MATERIALS HANDLING DUCT
- TANKS AND TANK LINERS
and all types of special fabrications
such as ...
- PLATING RACKS AND BASKETS
- TANK GUARDS
- CURRENT BLOCKS
- ELECTRICAL INSULATORS
- ABRASION-RESISTANT SHIELDS
- SPRAY BOOTH SHIELDS
- PROTECTIVE WALL COVERINGS
- MACHINED PARTS
plus these other stock items:
PVC sheet, rod, pipe, nuts, bolts
and fittings
- POLYPROPYLENE
- POLYETHYLENE
- ODOR CONTROL SYSTEMS

PVC Constructed



Duall INDUSTRIES, INC.
700 S. McMillan Street • Owosso, Michigan 48867 • Ph: (517) 725-8184
Telex 228-532

Duall FUME SCRUBBERS

SPECIFICATIONS and PERFORMANCE DATA

DESCRIPTIONS

F-101. Horizontal (cross-flow), four stage, wet scrubber. This model has maximum efficiency on water soluble contaminants and odors, but is also effective on low soluble contaminants with the use of chemical neutralizers.

F-101D. Horizontal (cross-flow), six stage, wet scrubber. The F-101D is especially designed for use on stubborn low solubility contaminants or where extremely high scrubbing efficiency is required on normal contaminants.

FW-300. Vertical (counter-flow), four stage, wet scrubber with integral blower. Efficiency is equal to the F-101.

FW-300D. Vertical (counter-flow), six stage, wet scrubber with integral blower. Efficiency is equal to the F-101D.

PT-500. Vertical (counter-flow), four stage, wet scrubber. Efficiency is equal to the F-101.

PT-500D. Vertical (counter-flow), six stage, wet scrubber. Efficiency is equal to the F-101D.

All Duall Fume Scrubbers are constructed of P.V.C. and Polypropylene corrosion resistant materials and include a rugged coated steel base with lifting luggs. All above units are available with extended depth packing.

SCRUBBING PRINCIPLES

Contaminant removal is accomplished by first slowing the fumes to a velocity below 500 fpm and then passing the fumes through two scrubbing stages in the single pack models and four stages in the double pack types. The fumes first pass through a water spray or curtain during which a percentage of the larger contaminant particles drop out and the remaining fumes are saturated. The second stage consists of a 12" deep pack of polypropylene high surface, non-clogging, spherical plate packing media* which is continuously wetted by the spray nozzles. The saturated fumes are impinged upon the packing and the contaminants are absorbed and carried away in the wash water. The first and second stages are repeated in the double pack fume scrubbers.

*Several types of alternate packing media are available on request.

MIST ELIMINATION

After passing through the scrubbing sections, the air is moisture laden and must pass through a two stage gravity mist eliminator section. This final stage of P.V.C. eliminator blades provides four 30° changes in direction and eliminates entrained water.

WATER SUPPLY

All Duall Fume Scrubbers may be supplied with water either directly from your supply or from an integral or remote recirculation system supplied with the scrubber. It is generally recommended that a recirculation system be used to conserve water except on very low cfm units. The actual fresh water consumption on the single pack series with recirculation is only 0.05 to 0.15 gpm/1000 cfm depending on the contaminant involved. On the double pack models, water consumption ranges from 0.1 to 0.3 gpm/1000 cfm. This represents 5% of the water being recirculated. Duall scrubbers are self-draining and may be installed out-doors in sub-zero conditons without freeze-up. If these conditions exist, a remote recirculation system should be specified for placement in a heated area.

All Duall Scrubbers come complete with fittings for the additon of chemical neutralizers, if required. A complete chemical metering and pumping system is available upon request.

MATERIALS

Every Duall Fume Scrubber is shipped complete with an integral coated steel base. No special mounting is required. Simply connect the duct, the water and power supply, and the unit is ready for operation. Complete installation and operating instructions are supplied with all Duall Scrubbers.

PRESSURE DROP

The following pressure drops are applicable for Scrubbers operated at design CFM:

F-101	2.0" w.g.	FW-300D	3.0" w.g.
F-101D	3.0" w.g.	PT-500	2.0" w.g.
FW-300	2.0" w.g.	PT-500D	3.0" w.g.

On the FW-300 series, the blower is designed for 2.0" external static pressure.

FW-300 BLOWER SECTION

The top section of the FW-300 Fume Scrubber consists of a Duall P.V.C. centrifugal blower complete with motor and OSHA belt guard and shaft cover. The blower section may be rotated through 360° to obtain any desired angle between scrubber inlet and blower outlet. This blower section is same low maintenance, guaranteed corrosion resistant blower described in Duall Brochure No. CI-131, and NH-151.

MAINTENANCE

All Duall Fume Scrubbers incorporate low maintenance components from front to back, including the packing, plumbing system and eliminators. Quick opening inspection doors are at all critical points.

DUALL FUME SCRUBBERS Typical Average Fume Removal Efficiencies				
MODELS▶ CONTAMINATES ▼	Single Pack Series: F-101 PT-500 FW-300	Double Pack Series: F-101D PT-500D FW-300D	Single Pack Series: with added Chemical Neutralizer (pH Control)	Double Pack Series:
Acetic Acid	95-98	98-99	—	—
Alkaline Cleaners	96-99	98-99	—	—
Aluminum Bright Dip *	80-85	85-90	—	—
Anodizing	96-99	98-99	—	—
Aqua Regia	80-85	85-90	85-90	90-95
Boric Acid	85-90	90-95	—	—
Caustic Cleaners	98-99	99	—	—
Caustic Soda	98-99	99	—	—
Chlorine	80-85	85-90	85-90	90-95
Chromic Acid	98-99	99	—	—
Copper Chloride	75-80	80-85	85-90	90-95
Cyanide Solutions	98-99	99	—	—
Ferric Chloride	80-85	83-88	—	—
Ferric Nitrate	96-98	98-99	—	—
Ferrous Chloride	90-95	95-98	—	—
Ferrous Sulfate	95-97	96-98	—	—
Fluosilicic Acid	95-98	98-99	—	—
Hydrochloric Acid	80-85	85-90	90-95	95-98
Hydrogen Cyanide	85-90	90-95	—	—
Hydrofluoric Acid	90-93	95-98	—	—
Hydrofluosilicic Acid	95-98	98-99	—	—
Hydrogen Peroxide	90-95	95-99	—	—
Hydrogen Sulfide	70-75	75-80	85-90	95-98
Nickel Chloride	80-85	85-90	90-95	95-98
Nickel Sulfate	80-85	85-90	90-95	95-98
Nitric Acid	75-80	85-90	—	—
Nitrogen Dioxide (NO ₂)	45-50	50-60	65-70	70-75
Nitric — HF Acid	75-80	85-90	—	—
Perchloric Acid	95-98	96-99	—	—
Phosphoric Acid	96-99	98-99	—	—
Potassium Dichromate	96-98	98-99	—	—
Selenium Sulfide	96-98	98-99	—	—
Sodium Chloride	96-98	98-99	—	—
Sodium Fluoride	90-95	95-98	—	—
Sodium Glutamate	96-98	98-99	—	—
Sodium Hydroxide	98-99	99	—	—
Sulfur Dioxide	70-75	75-80	80-85	85-90
Sulfuric Acid	96-98	98-99	—	—
Tin Chlorides	75-80	80-85	85-90	90-95
Zinc Chloride	75-80	80-85	—	—
Zinc Nitrate	96-98	98-99	—	—
Zinc Sulfate	96-98	98-99	—	—

* These efficiencies are for the combined nitric and phosphoric fume. The efficiency for the NO₂ portion of the fume only will be as listed above.

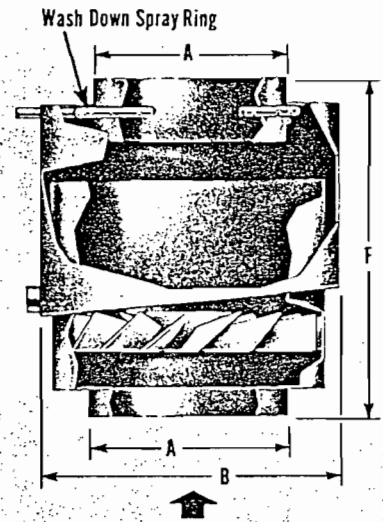
• The above efficiencies are intended as guide representing average values. Specific combinations and concentrations of fumes may result in a significant variation from the above.

Moisture Extractor

The Duall Moisture Extractor is effective on entrained water and other relatively heavy, airborne particles. Moisture removal is accomplished centrifugally as the air passes through a set of stationary blades. At design air flow a 0.75" static pressure drop is required.

The Duall Moisture Extractor is constructed of PVC and is complete with a drain coupling and spray system for periodic wash down.

This unit is designed for installation in a vertical run of duct.



DIMENSIONS IN INCHES

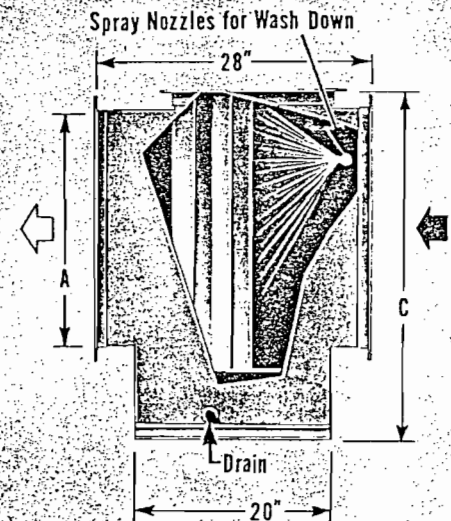
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B	14	16	20	22	24	28	30	32	34	36	38	41	46	48	52	54	57	60	63	66	69	76	86							
F	29					34					40					46					52					56				

Chemical Mist Eliminator

Duall's Chemical Mist Eliminator was developed for use on moisture laden fumes containing dissolved chemicals such as chrome, sulfuric acid, copper, zinc, etc. Contaminant removal takes place in a set of vertically mounted, chevron type, PVC eliminator blades. These blades provide four 30° direction changes resulting in high removal efficiency. A wash down spray system, drain and plastisol coated steel base frame are included as standard equipment.

This unit may be equipped with an inlet spray system for use as a fume washer.

The Duall Chemical Mist Eliminator is designed for installation in a horizontal configuration.



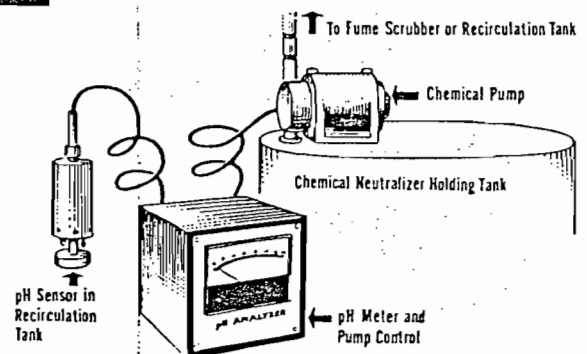
DIMENSIONS IN INCHES

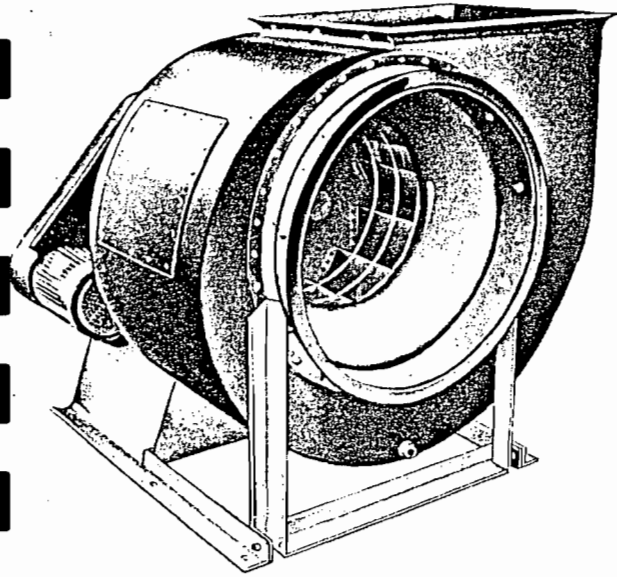
CFM (000's)	.05	1	2	3	4	5	6	8	10	12	14	16	18	20	22	24	26	28	30	35	40	45	50
A	9	13	18	22	26	29	32	36	40	44	48	50	55	58	60	65	68	70	75	78	85	88	92
OVERALL WIDTH	12	16	21	25	29	32	36	40	44	48	52	54	59	62	64	69	72	74	79	82	89	92	96
C	20½	24½	29½	33½	37½	40½	43½	47½	51½	55½	59½	61½	66½	69½	71½	76½	79½	81½	86½	89½	96½	99½	103½

OPTIONAL pH CONTROL PACKAGE

An optional pH control system is available for use with any new or existing Duall Fume Scrubbers. pH control will allow precise control over effluent quality as well as provide neutralization for contaminants in the fume scrubber.

The pH control package includes a pH probe and transmitter, a pH analyzer and pump control, and a variable output chemical pump.





Duall

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PVC

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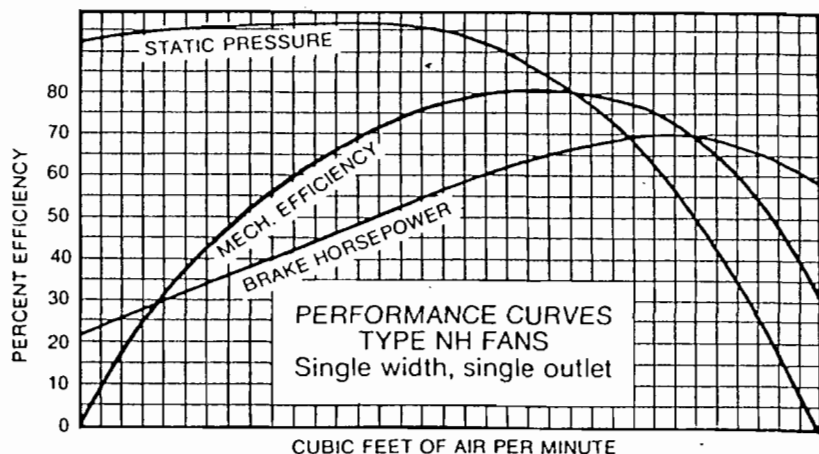
FANS

TYPE **NH** TO OVER **70,000** CFM

- HIGH EFFICIENCY.
- ECONOMICAL OPERATION.
- QUIET, SMOOTH RUNNING.
- GREAT CORROSION RESISTANCE.
- LOW MAINTENANCE.
- QUICK, EASY INSTALLATION.

These large corrosion resistant P.V.C. constructed fans with their stable and efficient performance are preferred in most plants where a corrosive atmosphere prevails. The P.V.C., heavy duty constructed housings, with the steel reinforced plastisol coated wheel, make this excellent fan inherently quiet. Among the other fine features included are phenolic coated steel base, TEFCBB motor, drain, flanged inlet and outlet, OSHA approved shaft cover and belt guard, and a readily accessible access door. All offered as standard equipment at no increase in price. All Duall fans carry a one year warranty against corrosion.

Excellent Performance



To Accurately Specify Your Requirements You Will Need . . .

1. Volume at the inlet in CFM.
2. The inlet static pressure.
3. The inlet air temperature.
4. If gas, not air, the density or specific gravity.
5. Elevation above sea level.
6. Characteristics of the electric current.

Construction Features

DUALL PVC FANS are built to last. Features include: Heavy angle iron bracing. Over-capacity shaft and bearings. Formed PVC venturi inlet for streamlined flow into the wheel with its own matching cone, resulting in very high efficiency and quiet operation. Operating temperatures up to 155°F. All PVC housing. PVC coated steel wheel. PVC inlet and outlet angle flanges. Phenolic coated steel frame. PVC drain. OSHA belt and shaft guards.

RECOMMENDED SPECIFICATIONS FOR POLYVINYL CHLORIDE (P.V.C.) EXHAUST DUCT & EQUIPMENT

Exhaust Duct

All exhaust duct to be fabricated of Duall Type 2, Grade 1, high impact P.V.C. Extruded Type 1 P.V.C. duct 6" diameter to 18" diameter will be acceptable where applicable. The following schedule of minimum gages and reinforcing will apply:

Max. Dia.	Gage	Reinforcing
Round		
16" dia.*	3/32"	None
32" dia.	1/8"	None
33" dia. to 60"	3/16"	None
Rectangular		
20" side	1/8"	None
40" side	3/16"	PVC T-Bar @ 4' C.C.
41" side up	1/4"	PVC T-Bar @ 4' C.C.

*Extruded duct through 18" to have 3/16" wall.

FITTINGS — ROUND & RECTANGULAR DUCT

Flanges — to be made of P.V.C. Type 1 angle material, heat formed and continuously back welded to duct section. 0 to 36" diameter — 1 1/2" x 1 1/2" x 3/16" angle. 37" and up diameter — 2" x 2" x 1/4" angle. Bolt holes to be 5/16" diameter for 1/4" stainless steel bolts and no more than four (4) inches apart on centers. Gasket material to be a soft mastic type or foam P.V.C. Full-face solid gasket materials are not acceptable for use with P.V.C.

Sleeves — to be formed from four (4) inch wide flat Type 1 P.V.C. material of a thickness equal to or greater than the wall thickness of duct to be joined. Weld to one end of duct section leaving one-half the sleeve length for adjoining section to slip into.

Elbows — to have a minimum center line radius of 1 1/2 times diameter unless field conditions make it impossible. Ninety degree elbows to have five (5) gores and forty-five degree elbows to have three (3) gores.

Branches — to enter main at no more than forty-five degrees (thirty degrees preferred) to direction of flow and wherever practical to enter on an enlarging taper section. Branches should not enter opposite each other. Branches to be continuously welded to main.

Taper sections — 1" change in diameter to every 5" in length.

CONSTRUCTION — RECTANGULAR DUCT

All straight lengths to have formed corner construction for maximum strength. This includes taper sections where practical. Elbows to have welded corner construction.

INSTALLATION

All joints to be flanged or sleeved and made water-tight. Sleeves may be welded or cemented. A flanged joint should be provided between draft boxes and risers. Flanged joints should be provided at all other connections where dismantling may be required.

A drain connection to be installed at the low point on each trunk line.

Ductwork should be fitted with saddle bands at 8' to 12' centers suspended with all-thread rod. Ductwork should also be suspended at each change in direction.

Exhaust Blowers

Exhaust blowers shall be centrifugal, arrangement 9 with backwardly inclined wheels Type NH and CI as manufactured by Duall Industries, Inc. of Owosso, Michigan. Wheels shall be steel with a minimum 60 mil P.V.C. coating. Coating to be

spark tested. Housings shall be constructed of Duall Type 2, Grade 1, high impact P.V.C.. Frames shall be steel with phenolic coating. All blowers shall be equipped with a vacuum formed inlet cone, drain, access door, OSHA approved belt and shaft guards and flanged inlet and outlet. All exhaust blowers shall carry a one year replacement guarantee against failure due to corrosion. Fans to be balanced prior to shipment.

Fume Scrubbers

A wet type fume scrubber shall be provided to meet the following specification such as the type F-101 as manufactured by Duall Industries of Owosso, Michigan.

MATERIAL

Fume scrubbers shall be constructed of Duall Type 2, Grade 1, high impact P.V.C.. Bolts, nuts, and all reinforcing framework used inside of scrubbers shall be P.V.C. or No. 316 stainless steel. Scrubbers to be complete with an epoxy or plastisol coated steel base of sufficient strength to make the unit self-supporting.

All piping inside of scrubber shall be P.V.C.

Spray nozzles shall be open orifice type, non-clogging.

SCRUBBING & ELIMINATING SURFACE

A packed scrubber bed at least 12" deep shall be provided. The packing material shall consist of 2 1/2" diameter polypropylene, non-clogging, spherical plate type, shapes with a minimum surface area of 39 sq. ft. per cu. ft. The scrubbing section shall be constantly wetted by non-clogging, continuous flow spray nozzles. A minimum 8" deep mist eliminator section shall be provided. This shall consist of vertically mounted P.V.C. eliminators providing at least four 30° changes in direction of the air flow and eliminate entrained water from the air stream before it leaves the scrubber. Scrubbers shall be sized for a maximum of 500 fpm at the packing face.

A pre-wet section shall be provided at the entrance to the scrubber consisting of a bank of spray nozzles headed into the air stream. The nozzles shall be sufficient in number to blanket the inlet cross section with mist.

A flow meter shall be provided at the fresh water inlet.

Water-tight access doors shall be provided to permit easy access to scrubber bed and eliminators for maintenance purposes and to permit inspection while in use.

Inlet and outlet openings shall be flanged.

Exhaust Hoods

All exhaust hoods to be fabricated of Duall Type 2, Grade 1, high impact P.V.C.

The basic hood shape shall be fabricated of 1/8" thick P.V.C. All P.V.C. sheet used as reinforcing to be 3/16" thick P.V.C. "T-Bar" spaced not greater than 12" c.c. shall be used internally to reinforce slot dividers on vertical type hoods. All lip type hoods to have top and bottom of slot section reinforced with 3/16" P.V.C. Additional P.V.C. reinforcing shall be used as required to strengthen the hood at critical points and prevent warping.

P.V.C. exhaust hoods shall be fabricated basically by hot gas welding, but welds will not be allowed at corners along the length of the hood. All such corners are to be heat formed. All welded joints shall be welded inside and out. All hoods are to be equipped with a means of preventing liquid from accumulating in the bottom. Hoods having a plenum lower than the lowest slot shall have a drain crease in the bottom with a 1" threaded coupling. All hoods shall be equipped with an outlet connection as indicated on the drawings.

M & P PLATING, INC.
700 37TH STREET S.
ST. PETERSBURG, FL 33711
813/327-5118
FAX: 813/327-5119

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AUG 13 2001
Bureau of Air Monitoring
& Mobile Sources

August 8, 2001

Ms. Sandra Bowman
Bureau of Air Monitoring
and Mobile Services
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Air General Permit

Dear Ms. Bowman:

We have made the corrections to DEP Form No. 62-213-900(5), Chromium Electroplating and Anodizing Air General Permit Notification Form, as advised in your letter of July 31, 2001. We also noticed that Paragraph 1.a. of the Facility Information Section was also in error and we have made that correction.

Thank you for your assistance in getting this matter straightened out and if you have any questions, please contact Peter Valantiejus or myself by writing or at the above stated phone numbers..

Sincerely,


John C. Kutch
Vice President

Enclosure
cc: Mr. Gary Robbins, Pinellas County

CHROMIUM ELECTROPLATING AND ANODIZING
AIR GENERAL PERMIT NOTIFICATION FORM

RECEIVED

1 JUL 30 2001

Bureau of Air Monitoring
& Mobile Sources

Part III. Notification of Intent to Use General permit

Prior to filling out this form, please read the instructions provided at the end of the form. Send completed form to the address listed in the instructions and keep a copy of the form for your files.

Facility Name and Location

1. Facility Owner/Company Name (Name of corporation, agency, or individual owner): M & P Plating, Inc.
2. Site Name (For example, plant name or number): M & P Plating, Inc. - St. Petersburg
3. Hazardous Waste Generator Identification Number: I300333-001-AG
4. Facility Location: Street Address: 700 - 37 th Street South City: St. Petersburg County: Pinellas Zip Code: 33711
5. Facility Identification Number (DEP Use ONLY - do not fill in): 1030333

Responsible Official

6. Name and Title of Responsible Official: Name: Mr. Peter Valantiejus Title: Co-Owner
7. Responsible Official Mailing Address: Organization/Firm: M & P Plating, Inc. Street Address: 700 - 37 th Street South City: St. Petersburg County: Pinellas Zip Code: 33711
8. Responsible Official Telephone Number: Telephone: (727) 327-5118 Fax: () -

Facility Contact (If different from Responsible Official)

9. Name and Title of Facility Contact (For example, plant manager): Mr. Peter Valantiejus, Owner
10. Facility Contact Address: Street Address: 700 - 37 th Street South City: St. Petersburg County: Pinellas Zip Code: 33711
11. Facility Contact Telephone Number: Telephone: (727) 327-5118 Fax: () -

Facility Information

1.a. Provide the information below for each hard electroplating machine at the facility. Indicate the type of machine, the date of its purchase, and the date the control device was installed, if applicable.

HARD CHROMIUM PLATING TANKS

DATE PURCHASED	UNIT CLASS (circle one)	DATE CNTRL DEVICE INSTALLED	CONTROL DEVICE (see key)	APPLICABLE STANDARD (see key)
1/85	New/Existing	1/85	PBS	a
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			

PV

Key for Control Device Type

- PBS = packed-bed scrubber
- CMP = composite mesh pad
- PBS/CMP = packed-bed scrubber and composite mesh pad
- FS = fume suppressant only
- FS/WA = fume suppressant with a wetting agent
- FM = fiber-bed mist eliminator
- WA = wetting agent

Applicable Standard Key

- a = 0.03 mg/dscm
- b = 0.015 mg/dscm
- c = alternative standard for multiple tanks under common control

Is the facility's cumulative potential rectifier capacity greater than 60 million ampere-hours per year?

Yes No

1.b. Provide the information below for each decorative electroplating or anodizing machine at the facility. Indicate the type of machine, the date of its purchase, and the date the control device was installed, if applicable.

DECORATIVE AND ANODIZING TANKS

DATE PURCHASED	UNIT CLASS (circle one)	DATE CNTRL DEVICE INSTALLED	CONTROL DEVICE (see key)	APPLICABLE STANDARD (see key)
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			
	New/Existing			

Key for Control Device Type

PBS = packed-bed scrubber
CMP = composite mesh pad
PBS/CMP = packed-bed scrubber and composite mesh pad
FS = fume suppressant only
FS/WA = fume suppressant with a wetting agent
FM = fiber-bed mist eliminator
WA = wetting agent

Applicable Standard Key

x = 0.01 mg/dscm
y = 45 dynes/cm
z = records of bath components
(trivalent Cr tanks only)
c = alternative standard for multiple tanks
under common control

2. Indicate the date by which the facility must meet the requirements of paragraph (5) of Part II:
(Note: if your facility contains both hard and decorative plating or anodizing units, you must check each applicable date)

January 25, 1996 January 25, 1997

3. Indicate how the facility will fulfill the compliance demonstration:

The facility will conduct an initial performance test (FDEP has initial test on file, this is a renewal permit and facility keeps required records)

The facility will use a wetting agent to reduce emissions and will meet the existing surface tension limit in No. 1 above.

4. Equipment Monitoring and Recordkeeping Information

Check all logs which are required to be kept on-site in accordance with the requirements of this general permit:

- (a) Equipment maintenance
- (b) Equipment inspection and repair
- (c) Equipment malfunctions
- (d) Operation and maintenance checklist
- (e) Instrument calibration
(used during initial performance test)
- (f) Start-up, shutdown, malfunction plan
- (g) Performance test results
- (h) Equipment monitoring
- (i) Excess emissions
- (j) Operating periods
- (k) Rectifier capacity
- (l) Fume suppressant records
- (m) Purchase records of wetting agent components

5. Surrender of Existing DEP Air Permit(s)

Please indicate with an "X" the appropriate selection:

PV I hereby surrender all existing DEP air permits authorizing operation of the facility indicated in this notification form: the permit number(s) are:

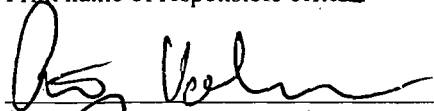
PV No DEP air permits currently exist for the operation of the facility indicated in this notification form.

Responsible Official Certification

I, the undersigned, am the responsible official, as defined in Part II of this form, of the facility addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I agree to operate and maintain the air pollutant emissions units and air pollution control equipment described above so as to comply with all terms and conditions of this general permit as set forth in Part II of this notification form.

I will promptly notify the Department of any changes to the information contained in this notification.

Peter Valantiejus
Print name of responsible official


Signature

7-18-01
Date

8-8-01

THIS PORTION MUST BE ATTACHED TO REMITTANCE FOR PROPER HANDLING

Please include your AIRS ID# on your check or money order. This number is located on the mailing label. 443450 DEC17 2004

TOTAL AMOUNT DUE: \$50.00

Do **NOT** Remove Label

AIRS ID# 1030333 7 ✓
M & P PLATING INC
700 37th Street South
ST PETERSBURG, FL 33711

FOR GOVERNMENT USE ONLY
ORG.: 37550101000 EO: A1
FUND: 20-2-035001
OBJECT: 002273

Printed on recycled paper.

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Please include your AIRS ID# on your check or money order. This number is located on the mailing label. 458327 JAN23 2006

TOTAL AMOUNT DUE: \$50.00

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1030333 7
M & P PLATING INC
700 37th Street South
ST PETERSBURG, FL 33711

FLAIR ACCT. CODE 372020350013755010000
BENEFITTING OBJECT CODE 002000
BENEFITTING CATEGORY 000200

FOR GOVERNMENT USE ONLY
ORG.: 37550101000 EO: A1
FUND: 20-2-035001
OBJECT: 002273

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JAN 25 2006
Bureau of the Treasury



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436141 FEB 9 2004

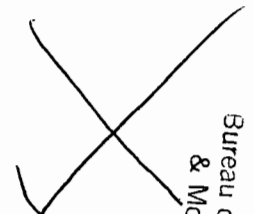
Please include your AIRS ID# on your check or money order. This number can be found below on your mailing label.

TOTAL AMOUNT DUE: \$50.00

Do **NOT** Remove Label

1030333
PETER VALANTIEJUS
M & P PLATING INC
700 37TH STREET SOUTH
ST PETERSBURG FL 33711

FOR GOVERNMENT USE ONLY
Org.: 37550101000
Fund: 20-2-035001
Obj.: 002273



Bureau of Air Monitoring
& Mobile Sources

FEB 13 2004

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412937 JAN11 2002



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TOTAL AMOUNT DUE: \$50.00

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AIRS ID# 1030333
M & P PLATING INC PETER VALANTIEJUS 700 37TH STREET SOUTH ST PETERSBURG FL 33711

FOR GOVERNMENT USE ONLY
Org.: 37550101000 EO: A1
Fund: 20-2-035001
Obj.: 002273



THIS PORTION MUST BE ATTACHED TO REMITTANCE FOR PROPER HANDLING

422068 JAN23 2003

Please include your AIRS ID# on your check or money order. This number can be found below on your mailing label.

TOTAL AMOUNT DUE: \$50.00

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AIRS ID# 1030333
M & P PLATING INC PETER VALANTIEJUS 700 37TH STREET SOUTH ST PETERSBURG FL 33711

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M & P PLATING INC
700 37TH STREET SOUTH
ST PETERSBURG, FL 33711

Street, Apt. No.,
or PO Box No.
City, State, ZIP+

PS Form 3800, June 2002 See Reverse for Instructions

7003 2260 0003 5650 9790

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

ID# 1030333
 PETER VALANTIEJUS
 M & P PLATING INC
 700 37TH STREET SOUTH
 ST PETERSBURG, FL 33711

COMPLETE THIS SECTION ON DELIVERY

A. Signature  Agent
 Addressee

B. Received by (Printed Name) C. Date of Delivery
David DeRose 2/6/04

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number 7003 2260 0003 5650 9790
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MAIL STATION 5510
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

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