



State of Ohio Environmental Protection Agency

STREET ADDRESS:

1800 WaterMark Drive  
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:

P.O. Box 1049  
Columbus, OH 43216-1049

Re: Permit to Install  
Montgomery County  
Application No: 08-3607  
TOXIC REVIEW

CERTIFIED MAIL

RECEIVED

July 30, 1997

AUG - 6 1997

PLATING TECHNOLOGY, INC.  
HENRY BERGER  
P.O. BOX 06326  
COLUMBUS, OH 43206

REGIONAL AIR POLLUTION  
CONTROL AGENCY

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo, Manager  
Field Operations & Permit Section  
Division of Air Pollution Control

cc: US EPA  
REGIONAL AIR POLLUTION CONTROL  
MICHAEL STAFFORD, COLUMBUS, OHIO

George V. Voinovich, Governor  
Nancy P. Hollister, Lt. Governor  
Donald R. Schregardus, Director



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## Permit to Install Terms and Conditions

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Application No. 08-3607  
APS Premise No. 0857040757  
Permit Fee: \$200.00

Name of Facility: PLATING TECHNOLOGY, INC.

Person to Contact: HENRY BERGER

Address: P.O. BOX 06326  
COLUMBUS, OH 43206

Location of proposed source(s): 1525 W. RIVER ROAD  
DAYTON, OHIO

Description of proposed source(s):  
ZINC ELECTROPLATING - LINE #6 WITH A PACKED BED SCRUBBER.

Date of Issuance: July 30, 1997

Effective Date: July 30, 1997

The above named entity is hereby granted a permit to install for the above described source(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described source(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

#### TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

#### NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

#### CONSTRUCTION OF NEW SOURCES

The proposed source(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of Ohio Administrative Code (OAC) Rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons)

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may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet applicable standards.

#### **PERMIT TO INSTALL FEE**

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

#### **PUBLIC DISCLOSURE**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC Rule 3745-49-03.

#### **APPLICABILITY**

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

#### **BEST AVAILABLE TECHNOLOGY**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

#### **PERMIT TO OPERATE APPLICATION**

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

#### **SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION**

This facility is permitted to operate each source described by this permit to install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws and regulations.

**AIR EMISSION SUMMARY**

The air contaminant sources listed below comprise the Permit to Install for PLATING TECHNOLOGY, INC. located in Montgomery County. The sources listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

| <u>Ohio EPA Source Number</u> | <u>Source Identification Description</u>                  | <u>BAT Determination</u> | <u>Applicable Federal &amp; OAC Rules</u> | <u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u> |
|-------------------------------|---|--------------------------|---|--|
| P010                          | Zinc Electro-plating line #6 (with a packed bed scrubber) | *                        | 3745-31-05<br>3745-15-07<br>3745-17-11    | 0.22 lb/hr, 0.95 TPY particulate;<br>0.17 lb/hr, 0.72 TPY HCl            |

\* BAT is compliance with applicable OAC rules and specified allowable emission rates through the application of a wet scrubber; compliance with Ohio EPA's Toxic Policy; recordkeeping and reporting.

**SUMMARY**

**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

| <u>Pollutant</u> | <u>Tons/Year</u> |
|------------------|------------------|
| Particulate      | 0.95             |
| HCl              | 0.72             |

**PERFORMANCE TEST REQUIREMENTS**

The permittee shall conduct, or have conducted, performance testing on the air contaminant source(s) in accordance with procedures approved by the Agency. Two copies of the written report describing the test procedures followed and the results of such tests shall be submitted and signed by the person responsible for the test. The Director, or an Ohio EPA representative, shall be allowed to witness the test, examine testing equipment, and require the acquisition or submission of data and information necessary to assure that the source operation and testing procedures provide a valid characterization of the emissions from the source and/or the performance of the control equipment.

- A. A completed Intent to Test form shall be submitted to the appropriate Ohio EPA District Office or Local Air

Pollution Control Agency where the original permit application was filed. This notice shall be made 30 days in advance and shall specify the source operating parameters, the proposed test procedures, and the time, date, place and person(s) conducting such tests.

- B. Two copies of the test results shall be submitted within 30 days after the completion of the performance test.
- C. Tests shall be performed for the following source(s) and pollutants(s):

| <u>Source</u> | <u>Pollutants</u>   |
|---------------|---------------------|
| P010          | Particulate and HCl |

**RECORD(S) RETENTION AND AVAILABILITY**

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

**REPORTING REQUIREMENTS**

Unless otherwise specified, reports required by the Permit to Install need only be submitted to Regional Air Pollution Control, 451 West Third Street, Dayton, Ohio 45422.

**WASTE DISPOSAL**

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

**MAINTENANCE OF EQUIPMENT**

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

**MALFUNCTION/ABATEMENT**

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the Regional Air Pollution Control, 451 West Third Street, Dayton, Ohio 45422.

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

**AIR POLLUTION NUISANCES PROHIBITED**

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

**NINETY DAY OPERATING PERIOD**

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

**ADDITIONAL SPECIAL TERMS AND CONDITIONS**

**A. Emission Control Requirements**

1. The Soak Clean tank (tank number 1) and the Acid Clean tank (tank number 4) contained in emissions unit P010 shall be continuously controlled through the application of a packed-bed scrubber.

**B. Packed Bed Scrubber Operational Restrictions**

1. The pressure drop across the scrubber shall be continuously maintained at a value of not less than the inches of water value, determined at the performance test where the emissions unit was determined to be in compliance, at all times while the emissions unit is in operation.

The scrubber water flow rate shall be continuously maintained at a value of not less than the gallons per minute value, determined at the performance test where the emissions unit was determined to be in compliance, at all times while the emission unit is in operation.

The pH of the scrubber liquor shall be continuously maintained between 7 and 9.

**C. Packed Bed Scrubber Monitoring and Recordkeeping Requirements**

1. The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber, the scrubber water flow rate, and the pH while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

- a. the pressure drop across the scrubber, in inches of water, on a daily basis;
- b. the scrubber water flow rate, in gallons per minute, on daily basis;
- c. the pH of the scrubber liquor, on daily basis; and,
- d. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

**D. Packed Bed Scrubber Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:
  - a. the static pressure drop across the scrubber;
  - b. the scrubber water flow rate; and,
  - c. the pH of the scrubber liquor.

These reports shall be submitted to the Director (Regional Air Pollution Control Agency) within 15 days after the exceedance occurred.

**E. Preventive Maintenance and Malfunction Abatement Plan (PM&MAP)**

1. The permittee shall implement a PM&MAP for this emissions unit and the associated packed-bed scrubber.

The PM&MAP shall include, but not be limited to, the specific steps taken and/or the specific items checked on a routine basis to ensure optimum operation of this emissions unit, and the associated packed-bed scrubber. The PM&MAP shall be in writing and shall be submitted to the Regional Air Pollution Control Agency in conjunction with the subsequent Permit to Operate application.

Specifically, the PM&MAP shall include:

- a. installation, operation and maintenance of equipment to continuously monitor and record the scrubber water flow rate; and,
- b. routine scrubber inspection to prevent failures.

**F. Ohio EPA's "Air Toxics Policy"**

1. This permit allow the use of the electroplating materials specified by the permittee in the application for PTI number 08-3607. In conjunction with the best available technology requirements of OAC rule 3745-31-05, the HCl and NaOH emission limitation(s) specified in this permit were established in accordance with the Ohio EPA's "Air Toxics Policy" and are based on electroplating material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the application. Compliance with the Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the SCREEN3 model and a comparison of the predicted 1 hour maximum ground-level concentration to the MAGLC. The following summarized the results of the modeling for each pollutant:

**Pollutant: HCl**

**TLV (ug/m<sup>3</sup>): 0.0075**

**Maximum Hourly Emission Rate (pounds/hour): 0.17**

**Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m<sup>3</sup>): 9.5**

**Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m<sup>3</sup>): 75**

Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the Regional Air Pollution Control Agency is required, including the possible issuance of modifications to PTI number 08-3607 and the operating permit:

- a. any changes in the composition of the electroplating materials, or the use of new electroplating materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV),

as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH," than the lowest TLV value specified in the above table;

- b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate, and decreased stack height) that would result in an exceedance of any MAGLC specified in the above table;
- c. a reduction in the TLV by the ACGIH for any of the electroplating materials that, at the maximum hourly emission rate specified in the above table, would result in an exceedance of the new MAGLC;
- d. any change to the emissions unit or its method of operation that would either require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01; and,
- e. any change in the composition of the electroplating materials, or use of new electroplating materials, that would result in an increase in emissions of any "Hazardous Air Pollutants" (HAPS) as defined in OAC rule 3745-77-01(V).

**Pollutant: NaOH (particulate)**

**TLV ( $\mu\text{g}/\text{m}^3$ ): 0.002**

**Maximum Hourly Emission Rate (pounds/hour): 0.22**

**Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline ( $\mu\text{g}/\text{m}^3$ ): 13.4**

**Maximum Acceptable Ground-Level Concentration (MAGLC) ( $\mu\text{g}/\text{m}^3$ ): 20**

Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the Regional Air Pollution Control Agency is required, including the possible issuance of modifications to PTI number 08-3607 and the operating permit:

- a. any changes in the composition of the electroplating materials, or the use of new electroplating materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

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- b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate, and decreased stack height) that would result in an exceedance of any MAGLC specified in the above table;
- c. a reduction in the TLV by the ACGIH for any of the electroplating materials that, at the maximum hourly emission rate specified in the above table, would result in an exceedance of the new MAGLC; and,
- d. any change to the emissions unit or its method of operation that would either require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01.