



Environmental
Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

12/9/2010

Bill Gallagher
BARKER PRODUCTS CO.
PO BOX 10845
CLEVELAND, OH 44110

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1318007912
Permit Number: P0106716
Permit Type: Renewal
County: Cuyahoga

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 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. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Kevin Boyce," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

If you have any questions, please contact Cleveland Division of Air Quality at (216)664-2297 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: CDAQ



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
BARKER PRODUCTS CO.**

Facility ID: 1318007912
Permit Number: P0106716
Permit Type: Renewal
Issued: 12/9/2010
Effective: 12/9/2010
Expiration: 12/9/2020



Division of Air Pollution Control
Permit-to-Install and Operate
for
BARKER PRODUCTS CO.

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Authorization

Facility ID: 1318007912
Application Number(s): A0040058
Permit Number: P0106716
Permit Description: Renewal PTIO for P005 (Zinc electroplating line #5) & P006 (Copper electroplating line #6)
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 12/9/2010
Effective Date: 12/9/2010
Expiration Date: 12/9/2020
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

BARKER PRODUCTS CO.
1028 E 134TH ST
Cleveland, OH 44114

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

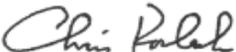
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Cleveland Division of Air Quality
2nd Floor
75 Erievue Plaza
Cleveland, OH 44114
(216)664-2297

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section 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 described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Chris Korleski
Director



Authorization (continued)

Permit Number: P0106716
Permit Description: Renewal PTIO for P005 (Zinc electroplating line #5) & P006 (Copper electroplating line #6)

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	P005
Company Equipment ID:	Line 5
Superseded Permit Number:	13-03830
General Permit Category and Type:	Not Applicable

Emissions Unit ID:	P006
Company Equipment ID:	Line 6
Superseded Permit Number:	13-03830
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Cleveland Division of Air Quality in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted

emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting¹ a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated

¹ Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.
2. The Ohio EPA has determined that this facility may be subject to the requirements of an area source MACT/GACT rule that the Ohio EPA does not have the delegated authority to implement. Although Ohio EPA has determined that an area source MACT (also known as the GACT) may apply, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised that all requirements associated with these rules are in effect and are enforceable by U.S. EPA. For more information on the area source rules, please refer to the follow U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>

C. Emissions Unit Terms and Conditions



1. P005, Line 5

Operations, Property and/or Equipment Description:

Zinc electroplating line 5 - Consisting of cleaning tank, acid dip tank, electroplating tank, rinsing station, and dryer.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) [From PTI 13-03830, issued: 8/2/2001]	NaOH mist: 0.09 lb/hr and 0.39 tpy HCl mist: 0.43 lb/hr and 1.88 tpy best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive mists (see b)(2)a. below) Visible fugitive mist emissions shall not exceed 5% opacity, as a 3-minute average.
b.	OAC rule 3745-17-07(B)(1)	The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-08(B)	The control measures specified by this rule are equivalent to the control measures established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The permittee shall employ best available control measures to minimize or eliminate visible emissions of fugitive mist. If required, best available control measures may include the installation of hoods, fans, or other type of equipment to adequately enclose, contain, capture, vent and control fugitive mists generated by the process. If technically feasible, the use of suitable and reasonably applicable physical or chemical fume suppressant can be used to satisfy the best available control measure requirement.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive mist from the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. the total duration of any visible emissions incident; and
- c. any corrective actions taken to eliminate the visible emissions.

(2) The permittee may, upon receipt of written approval from the Cleveland Division of Air Quality, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.

(3) The permittee shall collect and record the following information each month for this emissions unit:

- a. the name and identification number of each raw material (cleaners, acids) used in the electroplating line, as applied;
- b. the following information must be recorded for each of the raw materials (cleaners, acids) used in the electroplating line:

- i. the total mass of each raw materials used, pounds per month; and
 - ii. the percentage of each raw material in their respective tank (%).
 - c. the total monthly operating hours for the electroplating line; and
 - d. the average hourly emissions from all the raw materials used in the electroplating line (pounds per hour) for the individual contributions using the information from d)(3)a., d)(3)b., and d)(3)c. and the formulas in f)(1)a. for NaOH and f)(1)c. for HCl.
- (4) The permit to install for this emissions unit (P005) was evaluated based on the actual materials employed (hydrochloric acid) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model. The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case"

pollutant(s):

Pollutant: hydrochloric acid

TLV (mg/m₃): 5,420 µg/m₃

Maximum Hourly Emission Rate (lbs/hr): 0.43

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m₃): 36.47

MAGLC (ug/m₃): 129.05

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new 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 previously modeled;
- b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

- c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01, and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. Documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (3) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number d)(1) above:
 - a. all days during which any visible emissions of fugitive mist were observed from the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit; and
 - b. any corrective actions taken to eliminate the visible particulate emissions.
- (4) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Cleveland Division of Air Quality (CDAQ).

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

0.09 pound per hour NaOH mists

Applicable Compliance Method:

Compliance will be determined using the information specified in d)(3), and by the following formulation:

$$\text{NaOH emissions} = [(Q)(C)(G)]/T$$

Where:

Q = summation of the monthly raw material usage (lb/month)

G = typical gassing rate for this type of operation (5%), per Table 6 of Electroplating Engineering Handbook, Third Edition, pp. 683-684.

C = percentage of the cleaner in the solution (%)

T = total operating hours per month (hr/month)

b. Emission Limitation:

0.39 ton per year NaOH

Applicable Compliance Method:

Compliance will be determined using the information specified in d)(3), and by the following formulation:

$$\text{NaOH emissions} = [(Q)(C)(G)(F)]$$

Where:

Q = yearly raw material usage (lb/yr) determined by summing monthly usage rates from d)(3)

G = typical gassing rate for this type of operation (5%), per Table 6 of Electroplating Engineering Handbook, Third Edition, pp. 683-684.

C = percentage of the cleaner in the solution (%)

F = conversion factor, (1 ton/2000 lb)

c. Emission Limitation:

0.43 pound per hour HCl mists

Applicable Compliance Method:

Compliance will be determined using the information specified in d)(3), and by the following formulation:

$$\text{HCl emissions} = [(Q)(C)(G)]/T$$

Where:

Q = summation of the monthly raw material usage (lb/month)

G = typical gassing rate for this type of operation (5%), per Table 6 of Electroplating Engineering Handbook, Third Edition, pp. 683-684

C = percentage of the acid in the solution (%)
T = total operating hours per month (hr/month)

d. Emission Limitation:

1.88 tons per year HCl

Applicable Compliance Method:

Compliance will be determined using the information specified in d)(3), and by the following formulation:

HCl emissions = [(Q)(C)(G)(F)]

Where:

Q = yearly raw material usage (lb/yr) determined by summing monthly usage rates from d)(3)

G = typical gassing rate for this type of operation (5%), per Table 6 of Electroplating Engineering Handbook, Third Edition, pp. 683-684.

C = percentage of the acid in the solution (%)

F = conversion factor, (1 ton/2000 lb)

e. Emission Limitation:

Visible fugitive mist emissions from the tanks serving the emissions unit shall not exceed 5% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be determined in accordance with USEPA Method 9, 40 CFR Part 60, Appendix A.

g) Miscellaneous Requirements

(1) None.



2. P006, Line 6

Operations, Property and/or Equipment Description:

Copper electroplating line 6 - Consisting of cleaning tank, acid dip tank, electroplating tank, rinsing stations, and dryer.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) PTI 13-03830 issued on 8/2/2001	NaOH mist: 0.08 lb/hr and 0.35 tpy HCl mist: 0.15 lb/hr and 0.66 tpy H ₂ SO ₄ mist: 0.0011 lb/hr and 0.0048 tpy chromic acid mist: 0.0038 lb/hr and 0.017 tpy best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive mists (see b)(2)a. below) Visible fugitive mist emissions shall not exceed 5% opacity, as a 3-minute average.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-17-07(B)(1)	The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-08(B)	The control measures specified by this rule are equivalent to the control measures established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The permittee shall employ best available control measures to minimize or eliminate visible emissions of fugitive mist. If required, best available control measures may include the installation of hoods, fans, or other type of equipment to adequately enclose, contain, capture, vent and control fugitive mists generated by the process. If technically feasible, the use of suitable and reasonably applicable physical or chemical fume suppressant can be used to satisfy the best available control measure requirement.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive mist from the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. the total duration of any visible emissions incident; and
 - c. any corrective actions taken to eliminate the visible emissions.
- (2) The permittee may, upon receipt of written approval from the Cleveland Division of Air Quality, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.
- (3) The permittee shall collect and record the following information each month for this emissions unit:

- a. the name and identification number of each raw material (cleaners, acids) used in the electroplating line, as applied;
 - b. the following information must be recorded for each of the raw materials (cleaners, acids) used in the electroplating line:
 - i. the total mass of each raw materials used, pounds per month; and
 - ii. the percentage of each raw material in the their respective tank (%).
 - c. the total monthly operating hours for the electroplating line; and
 - d. the average hourly emissions from all the raw materials used in the electroplating line (pounds per hour) for the individual contributions using the information from d)(3)a., d)(3)b., and d)(3)c. and the formulas in f)(1)a., f)(1)c, f)(1)e., and f)(1)g. for NaOH, HCl, H₂SO₄, and chromic acid respectively.
- e) Reporting Requirements
- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
 - (2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number d)(1) above:
 - a. all days during which any visible emissions of fugitive mist were observed from the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit; and
 - b. any corrective actions taken to eliminate the visible particulate emissions.
 - (3) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Cleveland Division of Air Quality (CDAQ).
- f) Testing Requirements
- (1) Compliance with the emission limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation:
0.08 pounds per hour NaOH mists

Applicable Compliance Method:
Compliance will be determined using the information specified in d)(3), and by the following formulation:
NaOH emissions = [(Q)(C)(G)]/T

Where:

Q = summation of the monthly raw material usage (lb/month)

G = typical gassing rate for this type of operation (5%), per Table 6 of
Electroplating Engineering Handbook, Third Edition, pp. 683-684.

C = percentage of the cleaner in the solution (%)

T = total operating hours per month (hr/month)

Emission Limitation:

0.35 ton per year NaOH

Applicable Compliance Method:

Compliance will be determined using the information specified in d)(3), and by
the following formulation:

$$\text{NaOH emissions} = [(Q)(C)(G)(F)]$$

where:

Q = yearly raw material usage (lb/yr) determined by summing monthly usage
rates from d)(3)

G = typical gassing rate for this type of operation (5%), per Table 6 of
Electroplating Engineering Handbook, Third Edition, pp. 683-684.

C = percentage of the cleaner in the solution (%)

F = conversion factor, (1 ton/2000 lb)

b. Emission Limitation:

0.15 pound per hour HCl mists

Applicable Compliance Method:

Compliance will be determined using the information specified in d)(3), and by
the following formulation:

$$\text{HCl emissions} = [(Q)(C)(G)]/T$$

where:

Q = summation of the monthly raw material usage (lb/month)

G = typical gassing rate for this type of operation (5%), per Table 6 of
Electroplating Engineering Handbook, Third Edition, pp. 683-684.

C = percentage of the acid in the solution (%)

T = total operating hours per month (hr/month)

c. Emission Limitation:

0.66 ton per year HCl

Applicable Compliance Method:

Compliance will be determined using the information specified in d)(3), and by
the following formulation:

$$\text{HCl emissions} = [(Q)(C)(G)(F)]$$

where:

Q = yearly raw material usage (lb/yr) determined by summing monthly usage
rates from d)(3)

G = typical gassing rate for this type of operation (5%), per Table 6 of Electroplating Engineering Handbook, Third Edition, pp. 683-684.

C = percentage of the acid in the solution (%)

F = conversion factor, (1 ton/2000 lb)

- d. Emission Limitation:
0.0011 pound per hour H₂SO₄ mists

Applicable Compliance Method:

Compliance will be determined using the information specified in d)(3), and by the following formulation:

$$\text{H}_2\text{SO}_4 \text{ emissions} = [(Q)(C)(G)]/T$$

where:

Q = summation of the monthly raw material usage (lb/month)

G = typical gassing rate for this type of operation (3%), per Table 6 of Electroplating Engineering Handbook, Third Edition, pp. 683-684.

C = percentage of the acid in the solution (%)

T = total operating hours per month (hr/month)

- e. Emission Limitation:
0.0048 ton per year H₂SO₄

Applicable Compliance Method:

Compliance will be determined using the information specified in d)(3), and by the following formulation:

$$\text{HCl emissions} = [(Q)(C)(G)(F)]$$

where:

Q = yearly raw material usage (lb/yr) determined by summing monthly usage rates from d)(3)

G = typical gassing rate for this type of operation (3%), per Table 6 of Electroplating Engineering Handbook, Third Edition, pp. 683-684.

C = percentage of the acid in the solution (%)

F = conversion factor, (1 ton/2000 lb)

- f. Emission Limitation:
0.0038 pound per hour chromic acid mist

Applicable Compliance Method:

Compliance will be determined using the information specified in d)(3), and by the following formulation:

$$\text{Chromic acid emissions} = [(Q)(C)(G)]/T$$

Where:

Q = summation of the monthly raw material usage (lb/month)

G = typical gassing rate for this type of operation (3%), per Table 6 of Electroplating Engineering Handbook, Third Edition, pp. 683-684.

C = percentage of the acid in the solution (%)

T = total operating hours per month (hr/month)

- g. Emission Limitation:
0.017 ton per year chromic acid mist

Applicable Compliance Method:

Compliance will be determined using the information specified in d)(3), and by the following formulation:

$$\text{Chromic acid emissions} = [(Q)(C)(G)(F)]$$

Where:

Q = yearly raw material usage (lb/yr) determined by summing monthly usage rates from d)(3)

G = typical gassing rate for this type of operation (3%), per Table 6 of Electroplating Engineering Handbook, Third Edition, pp. 683-684.

C = percentage of the acid in the solution (%)

F = conversion factor, (1 ton/2000 lb)

- h. Emission Limitation:

Visible fugitive mist emissions from the tanks serving emissions unit shall not exceed 5% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance shall be determined in accordance with USEPA Method 9, 40 CFR Part 60. The Method 9 observations should be made at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

- g) Miscellaneous Requirements

(1) None.