



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
CUYAHOGA COUNTY**

CERTIFIED MAIL

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 13-03830

DATE: 8/2/2001

Barker Products Company -- Colinwood Plt
Hal Myers
Post Office Box 10845
Cleveland, OH 44110

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 within thirty (30) days after the notice of the Directors 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 and Permit Section
Division of Air Pollution Control

cc: USEPA

CBAPC



**Permit To Install
Terms and Conditions**

**Issue Date: 8/2/2001
Effective Date: 8/2/2001**

FINAL PERMIT TO INSTALL 13-03830

Application Number: 13-03830
APS Premise Number: 1318007912
Permit Fee: **\$800**
Name of Facility: Barker Products Company -- Colinwood Plt
Person to Contact: Hal Myers
Address: Post Office Box 10845
Cleveland, OH 44110

Location of proposed air contaminant source(s) [emissions unit(s)]:
**1028 East 134th Street
Cleveland, Ohio**

Description of proposed emissions unit(s):
Plating line Number 6 -- P005.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(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 emissions unit(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 emissions unit(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

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements Related to Monitoring and Record keeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

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representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. 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.

9. Construction of New Sources(s)

The proposed emissions unit(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 cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(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 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) 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 the requirements of this permit or cannot meet applicable standards.

10. 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.

11. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit to Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

12. 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.

13. Source Operation and Operating Permit Requirements 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, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the emissions unit(s) covered by this permit.

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14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
NaOH mist	0.74
HCl mist	2.54
H ₂ SO ₄ mist	0.0048
chromic acid mist	0.017

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P005 - Zinc electroplating line # 5 consisting of cleaning tank, acid dip tank, electroplating tank, rinsing station, and dryer.	OAC rule 3745-31-05(A)(3)	NaOH mist: 0.09 lb/hr; 0.39 tpy HCl mist: 0.43 lb/hr; 1.88 tpy best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive mists (see Sections A.2.a) Visible fugitive mist emissions shall not exceed 5% opacity, as a 3-minute average.
	OAC rule 3745-17-07(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(A)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established

pursuant to OAC rule
3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a** The permittee shall employ reasonably available control measures to prevent fugitive mist emissions, and to assure compliance with the above-mentioned applicable requirements. If required, reasonable 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. The use of suitable physical or chemical suppressant for the mentioned control may be encouraged.
- 2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

B. Operational Restrictions

None

C. Monitoring and/or Record keeping Requirements

1. The permittee shall perform weekly inspections to the electroplating line to determine any abnormal fugitives emissions from the referenced unit.
2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. The permittee shall maintain records of the following information:
 - a. The date and reason any required inspection was not performed;
 - b. The date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s):

- c. The dates the control measure(s) was (were) implemented; and
- d. On a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in 4.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

- 5. 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:
 - 1. The total mass of each raw materials used, pounds per month
 - 2. The total mass of each raw material used, pounds per year
 - 3. The percentage of each raw material in the their respective tank (%)
 - c. The total monthly operating hours for the electroplating line
 - d. The total emissions from all the raw materials used in the electroplating line (pounds per hour) for the individual contributions using the information from Section C.5.a, C.5.b., and C.5.c.
- 6. 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

Emissions Unit ID: **P005**

(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 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(VV)(1)(a)(ii), 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 (other than (VV)(1)(a)(ii)), 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.

D. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. Each week during which an inspection was not performed by the required frequency; and
 - b. Each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.
2. The permittee shall submit semiannual deviation (excursion) reports to the Cleveland Bureau of Air Pollution Control (CBAPC) which identify each day during which the average hourly total NaOH mist emissions exceeded 0.09 pounds per hour.
3. The permittee shall submit semiannual deviation (excursion) reports to the Cleveland Bureau of Air Pollution Control (CBAPC) which identify each day during which the average hourly total HCl mist emissions exceeded 0.43 pounds per hour
4. The permittee shall also submit annual reports to the CBAPC which specify the total tons of NaOH mist, and HCl mist emissions from this emissions unit for the previous calendar year.
5. The permittee shall submit semiannual written reports which (a) identify all days during which any abnormal visible particulate emissions were observed escaping from the building containing this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible fugitive particulate emissions. These reports will be submitted to the CBAPC in accordance with the reporting requirements of the General Terms and Conditions of this permit.

6. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.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 specific in section C.5, and by the following formulation:

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

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 specific in section C.5, and by the following formulation:

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

where:

Q = yearly raw material usage (lb/yr)

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 specific in section C.5, and by the following formulation:

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

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 specific in section C.5, and by the following formulation:

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

where:

Q = yearly raw material usage (lb/yr)

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)

2. Emission Limitation:

Fugitive mists from the tanks serving emissions unit
5% opacity as a 3-minute average

Applicable Compliance Method:

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Emissions Unit ID: **P005**

Compliance shall be determined in accordance with USEPA Method 9, 40 CFR part 60.

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

- The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P006 - Copper electroplating line # 6 consisting of cleaning tank, acid dip tank, electroplating tank, rinsing stations, and dryer.	OAC rule 3745-31-05(A)(3)	NaOH mist: 0.08 lb/hr; 0.35 tpy HCl mist: 0.15 lb/hr; 0.66 tpy H ₂ SO ₄ mist: 0.0011 lb/hr; 0.0048 tpy chromic acid mist: 0.0038 lb/hr; 0.017 tpy best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive mists (see Sections A.2.a)
	OAC rule 3745-17-07(B)(1)	Visible fugitive mist emissions shall not exceed 5% opacity, as a 3-minute average.
	OAC rule 3745-17-11(A)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a** The permittee shall employ reasonably available control measures to prevent fugitive mist emissions, and to assure compliance with the above-mentioned applicable requirements. If required, reasonable 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. The use of suitable physical or chemical suppressant for the mentioned control may be encouraged.
- 2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

B. Operational Restrictions

None

C. Monitoring and/or Record Keeping Requirements

- 1.** The permittee shall perform weekly inspections to the electroplating line to determine any abnormal fugitives emissions from the referenced unit.
- 2.** The above-mentioned inspections shall be performed during representative, normal operating conditions.
- 3.** The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
- 4.** The permittee shall maintain records of the following information:

- a. The date and reason any required inspection was not performed;
- b. The date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s):
- c. The dates the control measure(s) was (were) implemented; and
- d. On a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in 4.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

5. 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:
 1. The total mass of each raw materials used, pounds per month
 2. The total mass of each raw material used, pounds per year
 3. The percentage of each raw material in the their respective tank (%)
 - c. The total monthly operating hours for the electroplating line
 - d. The total emissions from all the raw materials used in the electroplating line (pounds per hour) for the individual contributions using the information from Section C.5.a, C.5.b., and C.5.c.

D. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. Each week during which an inspection was not performed by the required frequency; and

- b. Each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.
2. The permittee shall submit semiannual deviation (excursion) reports to the Cleveland Bureau of Air Pollution Control (CBAPC) which identify each day during which the average hourly total NaOH mist emissions exceeded 0.08 pounds per hour.
3. The permittee shall submit semiannual deviation (excursion) reports to the Cleveland Bureau of Air Pollution Control (CBAPC) which identify each day during which the average hourly total HCl mist emissions exceeded 0.15 pounds per hour.
4. The permittee shall submit semiannual deviation (excursion) reports to the Cleveland Bureau of Air Pollution Control (CBAPC) which identify each day during which the average hourly total sulfuric acid mist emissions exceeded 0.00038 pounds per hour.
5. The permittee shall also submit annual reports to the CBAPC which specify the total tons of NaOH mist, HCl mist, and sulfuric acid mist emissions from this emissions unit for the previous calendar year.
6. The permittee shall submit semiannual written reports which (a) identify all days during which any abnormal visible particulate emissions were observed escaping from the building containing this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible fugitive particulate emissions. These reports will be submitted to the CBAPC in accordance with the reporting requirements of the General Terms and Conditions of this permit.
7. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation:
0.08 pound per hour NaOH mists

Applicable Compliance Method:
Compliance will be determined using the information specific in section C.5, and by the following formulation:

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

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:
0.35 ton per year NaOH

Applicable Compliance Method:

Compliance will be determined using the information specific in section C.5, and by the following formulation:

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

where:

Q = yearly raw material usage (lb/yr)

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:
0.15 pound per hour HCl mists

Applicable Compliance Method:

Compliance will be determined using the information specific in section C.5, and by the following formulation:

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

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:
0.66 ton per year HCl

Applicable Compliance Method:

Compliance will be determined using the information specific in section C.5, and by the following formulation:

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

where:

Q = yearly raw material usage (lb/yr)

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:
0.0011 pound per hour H₂SO₄ mists

Applicable Compliance Method:

Compliance will be determined using the information specific in section C.5, and by the following formulation:

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

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)

- f. Emission Limitation:
0.0048 ton per year H₂SO₄

Applicable Compliance Method:

Compliance will be determined using the information specific in section C.5, and by the following formulation:

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

where:

Q = yearly raw material usage (lb/yr)

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)

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

Applicable Compliance Method:

Compliance will be determined using the information specific in section C.5, and by the following formulation:

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

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)

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

Applicable Compliance Method:

Compliance will be determined using the information specific in section C.5, and by the following formulation:

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

where:

Q = yearly raw material usage (lb/yr)

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)

2. Emission Limitation:

Fugitive mists from the tanks serving emissions unit
5% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be determined in accordance with USEPA Method 9, 40 CFR part 60.

F. Miscellaneous Requirements

None