

Facility ID: 0285010331 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 0285010331 Emissions Unit ID: P004 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

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.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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Two-wire zinc galvanizing line controlled by a sieve tray scrubber. The line includes steam cleaning baths, pickling, pickling rinse, hot water, flux, zinc, benzinal and cooling baths and two small natural gas heaters.	OAC rule 3745-31-05(A)(3) (PTI 02-21943 Modified 4/26/2007)	See A.2.a A.2.b, A.2.c, and A.2.d below.
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OAC rule 3745-17-11	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 3745-17-07(A)	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 3745-31-05(C)	See A.2.a and A.2.b below.

2. Additional Terms and Conditions

- (a) Hydrochloric acid (HCl) emissions shall not exceed 0.40 pounds per hour and 1.76 tons per year. The HCl pickling bath and the subsequent rinse bath shall be controlled by the scrubber all times the emissions unit is in operation. The scrubber shall capture and control 99% of the HCl emissions. Particulate emissions shall not exceed 0.44 pounds per hour and 1.93 tons per year from the on the flux, zinc and bezinal baths' exhaust stacks. Visible particulate emissions shall not exceed zero (0) percent opacity, as a six-minute average from the exhaust stacks.

B. Operational Restrictions

1. The static pressure across the scrubber when the emissions unit is in operation shall be continuously maintained within the manufacturer's recommended range to assure 99% control efficiency.
2. The scrubber water flow rate when the emissions unit is in operation shall be continuously maintained within the manufacturer's recommended range to assure 99% control efficiency.

The set point for the minimum scrubber water flow rate shall be maintained no less than the manufacturer's recommendation. The set point for the maximum scrubber water flow rate shall be maintained no more than the manufacturer's recommendation. An audible alarm shall be automatically activated whenever the scrubber water flow rate is outside the set points.

C. Monitoring and/or Record Keeping Requirements

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

The permittee shall record the following information each day:

 - a. the pressure drop across the scrubber; and
 - b. the scrubber water flow rate.

2. The permittee shall operate and maintain audible alarms for deviations in the scrubber water flow rate. The set points and alarm activation levels shall be set at the values specified in section B.2 above.

The permittee shall maintain a log of each instance when an audible alarm is activated, the cause of the alarm, the time interval of the deviation, the magnitude of the deviation (e.g. flow rate and unit of measure, as applicable), and the corrective action taken to restore the correct operational parameters.

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks 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 emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.

Note: The observer is not required to be certified in Method 9 in order to perform the required weekly check.

4. The permit to install for this emissions unit, P004, was evaluated based on the actual materials 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) 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): 7.5
 Maximum Hourly Emission Rate (lbs/hr): 0.4
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 171.5
 MAGLC (ug/m3): 178.6

5. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
 - 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.).
6. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the 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 quarterly deviation (excursion) reports that identify:
 - a. all periods of time during which the static pressure across the scrubber did not comply with the levels specified in this permit;
 - b. all periods of time during which the scrubber water flow did not comply with the levels specified in this permit; and
 - c. all instances when an audible alarm was activated, the cause of each alarm (if known), the time interval of the deviation, the magnitude of the deviation (in inches of water or gallons per minute as applicable), and the corrective action taken to restore the correct operating parameters.

The report shall include the manufacturer's recommended static pressure across the scrubber and scrubber water flow.

2. 2. The permittee shall submit semiannual written reports that:
 - a. identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

3. The reports contained in this permit shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following method(s):
Emission Limitations:
Hydrochloric acid (HCl) emissions shall not exceed 0.40 pounds per hour and 1.76 tons per year.

Applicable Compliance Method:

Compliance shall be determined according to 40 CFR 60, Appendix A, Method 26A.

Emission Limitations:

Particulate emissions shall not exceed 0.44 pounds per hour and 1.93 tons per year from the on the flux, zinc and bezinal baths. exhaust stacks.

Applicable Compliance Method:

Compliance can be determined according to OAC rule 3745-17-03(B)(10), (Method 5, 40 CFR 60, Appendix A).

Compliance can be determined by multiplying the particulate emissions factor of 5 pounds of particulate emissions per ton of zinc used (AP-42, Table 12.14-1(4/81)) by the maximum hourly usage rate of 0.088 tons of zinc.

Compliance with the annual limitation can be determined by multiplying the short term emissions rate determined above by 8760 hours per year and dividing by 2000 pounds per ton.

Emission Limitation:

Visible particulate emissions shall not exceed zero (0) percent opacity, as a six-minute average from the exhaust stacks.

Applicable Compliance Method

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

F. Miscellaneous Requirements

1. In accordance with the provisions of OAC rule 3745-31-05(C), the following terms and conditions of this permit to install are federally enforceable: A-F, except C.4, C.5 and C.6.