

Facility ID: 1409070344 Issuance type: Final State Permit To Operate

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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: 1409070344 Emissions Unit ID: P901 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>
P901 - HCI Pickle Line Controlled with a Scale Breaker Baghouse and Scrubber	OAC rule 3745-31-05(A)(3) (PTI 14-4816)	<p>Particulate emissions (PE) from the scrubber stack shall not exceed 0.3 pound per hour and 0.6 ton per year (TPY).</p> <p>Particulate emissions 10 microns or less in diameter (PM10) from the scrubber stack shall not exceed 0.3 pound per hour and 0.6 TPY.</p> <p>Hydrochloric Acid (HCl) emissions from the scrubber stack shall not exceed 2 pounds per hour and 8.8 TPY.</p> <p>Particulate emissions (PE) from the scale breaker baghouse shall not exceed 2.0 pounds per hour and 8.8 TPY.</p> <p>Particulate matter emissions 10 microns or less in diameter (PM10) from the scale breaker baghouse shall not exceed 2.0 pounds per hour and 8.8 TPY.</p> <p>Volatile Organic Compound (VOC) emissions shall not exceed 15 pounds per hour* and 30.7 TPY.</p> <p>*The hourly emission limitation is based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with this limitation.</p> <p>See term A.2.b.</p> <p>See sections B.1 and B.2.</p>
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-07(B)(1)	Visible particulate emissions from any fugitive emissions point shall not exceed 20% opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases.
	OAC rule 3745-17-11(B)	The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-09(E)	The VOC content of the metal protective oil(s)

employed in this emissions unit shall not exceed 2.6 pounds of VOC per gallon, excluding water and exempt solvents.

ORC 3704.03(F)(4)(d)

See section C.5.

2. Additional Terms and Conditions

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with VOC content limits and oil usage limits, use of a scrubber for control of pickle line HCl emissions, and use of a fabric filter for control of scale breaker PE emissions.
The VOC content, as applied, of the metal evaporative oil(s) employed in this emissions unit shall not exceed 1.4 pounds of VOC per gallon, including water and exempt solvents.

B. Operational Restrictions

1. The maximum annual metal protective oil(s) usage shall not exceed 43,800 gallons per year, including water and exempt solvents.
2. The maximum annual production rate of steel in this emissions unit shall not exceed 1,100,000 tons per year.
3. The static pressure drop across the scrubber shall be continuously maintained at a value not less than the static pressure drop established during the most recent emissions test that demonstrated that the emissions unit was in compliance (but not less than 1 inch of water column), at all times while the emissions unit is in operation.
4. The scrubber water flow rate shall be continuously maintained at a value not less than the scrubber water flow rate established during the most recent emissions test that demonstrated compliance at all times while the emissions unit is in operation.
5. The pressure drop across the scale breaker baghouse shall be maintained at a value not less than the pressure drop established during the most recent emissions test that demonstrated that the emissions unit was in compliance or the manufacturer's recommendation at all times while the emissions unit is in operation.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:
 - a. the name and identification number of each metal protective oil;
 - b. the VOC content of each metal protective oil (excluding water and exempt solvents), as applied;
 - c. the VOC content of each metal protective oil (including water and exempt solvents), as applied;
 - d. the number of gallons employed (including water and exempt solvents), as applied;
 - e. the monthly VOC emissions from the use of metal protective oil(s) [summation of c x d for each metal protective oil]; and
 - f. the monthly production, in tons per month.

These monthly records shall be summarized at the end of each calendar year.

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber (in inches of water column) and the scrubber water flow rate (in gallons per minute) for the scrubber employed for this emissions unit, while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s).

The permittee shall collect and record the following information:

- a. The pressure drop across the scrubber, in inches of water, on a once per shift basis.
 - b. The scrubber water flow rate, in gallons per minute, on a once per shift basis.
 - c. The operating times for the capture (collection) system, control device, monitoring equipment and the associated emissions unit.
3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the scale breaker baghouse (in inches of water) while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis.
 4. The permittee shall collect and record the following information each calendar year for this emissions unit:
 - a. the total annual VOC emissions, in tons;
 - b. the total annual production of steel, in tons; and
 - c. the total annual usage of metal protective oils.
 5. The permit to install for this emissions unit P901 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 SCREEN3 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN3 (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 (ug/m3): 2983
 Maximum Hourly Emission Rate (lbs/hr): 2
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 16.6
 MAGLC (ug/m3): 71

The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(d), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. 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.).

The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

D. Reporting Requirements

1. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the use of noncomplying (i.e., VOC content exceeding any limitation) metal protective oil(s). The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.
2. The permittee shall submit annual reports that include the following information for this emissions unit:
 - a. the annual production rate of steel, in tons;
 - b. the annual metal protective oil usage rate, in gallons;
 - c. the annual VOC emissions, in tons;
 - d. the annual PE/PM10 emissions, in tons; and
 - e. the annual HCl emissions, in tons.

These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
3. 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 in section C.2:
 - a. the static pressure drop across the scrubber.
 - b. the scrubber water flow rate.

If no deviations occurred during the reporting period, a report is required stating so.
4. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the scale breaker baghouse did not comply with the allowable range specified in section C.3.

E. Testing Requirements

1. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method:

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).
2. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method:

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)(3).
3. Emission Limitations:

Hydrochloric Acid emissions shall not exceed 2.0 pounds per hour and 8.8 TPY.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within one year after issuance of this permit.
 - b. The emission testing shall be conducted to demonstrate compliance with the pound per hour HCl emissions rate.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

Method 26 or 26A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
 - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
 - f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
 - g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

The TPY emissions are determined by multiplying the hourly emissions rate by 8760 hours per year then dividing by 2000 pounds per ton.
4. Emission Limitations:
- Particulate emissions (PE) from the scrubber stack shall not exceed 0.3 pound per hour and 0.6 ton per year (TPY).
- Particulate emissions 10 microns or less in diameter (PM10) from the scrubber stack shall not exceed 0.3 pound per hour and 0.6 TPY.
- Applicable Compliance Method:
Compliance shall be determined by multiplying the PM/PM10 emission factor of 0.001 pound per ton (company supplied emission factor) by the maximum hourly production rate of 260 tons per hour. The annual PM/PM10 emissions are determined by multiplying 0.001 pound per ton by the annual production limitation of 1,100,000 tons per year and then dividing by 2000 pounds per ton.
- Emission Limitations:
Particulate emissions (PE) from the scale breaker baghouse shall not exceed 2.0 pounds per hour and 8.8 TPY.
- Particulate matter emissions 10 microns or less in diameter (PM10) from the scale breaker baghouse shall not exceed 2.0 pounds per hour and 8.8 TPY.
- Applicable Compliance Method:
Compliance with the pounds per hour emission rate is determined based upon the emission factor of 2 pounds per hour of PM/PM10 provided in PTI application 14-04816. The annual emissions are determined by multiplying the hourly emissions rate by 8760 hours per year then dividing by 2000 pounds per ton.
- Emission Limitation:
0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases.
- Applicable Compliance Method:
Compliance with the grain of particulate emissions per dry standard cubic foot limit is based on the emissions information provided in PTI application 14-4816.
5. Emission Limitations:
Volatile Organic Compound (VOC) emissions shall not exceed 15 pounds per hour and 30.7 TPY.
- Applicable Compliance Method:
Compliance with the hourly limitation is determined by multiplying the maximum coating usage rate of 10.7 gallons per hour by 1.4 pounds of VOC per gallon. Compliance with the annual emissions limitation is determined by the recordkeeping in Section C.1.
6. USEPA Methods 24 and 24A shall be used to determine the VOC content for (a) coatings and (b) flexographic and rotogravure printing lines and related coatings, respectively. If an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.
7. Compliance with the usage and production limitations in sections B.1 and B.2 and the VOC emission limitations in section A.1 shall be determined by the record keeping requirements in sections C.1 and C.4.
8. Compliance with the operational limitations in sections B.3 and B.4 shall be determined by the record keeping requirements in sections C.2 and C.3.

F. **Miscellaneous Requirements**

1. None