

Facility ID: 1409010712 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: 1409010712 Emissions Unit ID: P009 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>
P009 - Nickel Nitrate Solution Tank and Dissolver	OAC rule 3745-31-05(A)(3) (PTI 14-05634 modified 9/4/2007)	Particulate emissions (PE) and particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.5 pound per day and 0.09 ton per year. Nitrogen oxide (NOx) emissions shall not exceed 5.4 pounds per day and 0.99 tons per year.
	OAC rule 3745-17-07(A)(1)	See terms and conditions A.2.a and A.2.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).
	OAC rule 3745-17-11(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

- (a) Visible particulate emissions from any stack associated with this emissions unit shall not exceed 10% opacity, as a six-minute average.
The hourly and annual emission limitations outlined are based upon the emissions unit's Potential to Emit (PTE). Therefore, no hourly or annual records are required to demonstrate compliance with these limitations.
Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the visible emission limitation, mass emission limitations, and the use of a caustic wet scrubber for PE control and a peroxide scrubber for NOx emission control.

B. Operational Restrictions

1. The pressure drop across the caustic scrubber shall be continuously maintained at a value of not less than 12 inches of water at all times while the emissions unit is in operation.
2. The caustic scrubber water flow rate shall be continuously maintained at a value between 130 and 165 gallons per minute to the packed tower and between 70 and 90 gallons per minute to the venturi at all times while the emissions unit is in operation.
3. The pH of the caustic scrubber liquor shall be maintained within the range of 8.0 to 10.0.
4. The pressure drop across the peroxide scrubber shall be continuously maintained at a value of not less than 0.20 inches of water at all times while the emissions unit is in operation.
5. The peroxide scrubber liquid flow rate shall be continuously maintained at a value between 25 and 45 gallons per minute at all times while the emissions unit is in operation.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the pressure drop across the scrubber, pH of the scrubbing liquor, and the scrubber water flow rate 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 manuals.

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

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

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:
 - a. The pressure drop across the caustic scrubber.
 - b. The caustic scrubber water flow rate.
 - c. The pH of the caustic scrubber liquor.
 - d. The pressure drop across the peroxide scrubber.
 - e. The peroxide scrubber liquid flow rate.
2. 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 limitations in sections A.1 and A.2 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

Particulate emissions (PE) and particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.5 pound per day and 0.09 ton per year.

Nitrogen oxide (NOx) emissions shall not exceed 5.4 pounds per day and 0.99 tons per year.

Applicable Compliance Method:

Compliance with the PE/PM10 and NOx emission limitations outlined in this permit shall be demonstrated by the emission factors, control efficiencies (if applicable) and the operational parameters as submitted in the request for modification to PTI application 14-05634, submitted on April 26, 2007.

Testing performed by Shepherd Chemical Middletown determined a correlation factor of 0.0038176 pounds of NO emissions per gallon of acid usage in this emissions unit.

Emission Limitation:

Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, U.S. EPA Reference Method 9.

2. Compliance with the operational restriction in section B.1 shall be demonstrated by the record keeping in term and condition C.1.a.
3. Compliance with the operational restriction in section B.2 shall be demonstrated by the record keeping in term and condition C.1.b.
4. Compliance with the operational restriction in section B.3 shall be demonstrated by the record keeping in term and condition C.1.d.
5. Compliance with the operational restriction in section B.4 shall be demonstrated by the record keeping in term and condition C.1.e.
6. Compliance with the operational restriction in section B.5 shall be demonstrated by the record keeping in term and condition C.1.f.

F. Miscellaneous Requirements

1. None