

Facility ID: 0511010012 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: 0511010012 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 - AS/SVE 1 - 20 soil vapor wells, 18 air sparge wells, air sparge compressor and a 2000 lb. activated carbon vessel.	OAC rule 3745-31-05(A) (PTI 05-13377)	<p>Volatile Organic Compound (VOC) emissions shall not exceed 0.05 lb/hour, and 0.22 ton/year.</p> <p>Hazardous Air Pollutant (HAP) emissions shall not exceed 0.05 lb/hour, and 0.22 ton/year.</p>

See A.2.a., and A.2.b., below

2. Additional Terms and Conditions

- (a) The emissions from this unit consist of chlorinated VOCs, predominantly tetrachloroethene (also known as perchloroethene) with minor amounts of tichloroethene and cis-1,2-Dichloroethene. Pilot testing has shown that greater than 99% of the emissions is tetrachloroethene. Chlorinated VOCs are VOCs as well as HAPs. The emission limits listed above are intended to cover the same emissions under both characterizations.

Based on data provided by the permittee this emissions unit shall be maintained within the following operational parameters at all times while this emissions unit is in operation:

 - a. the gas flow rate through the carbon absorber system shall be maintained within 100 acfm to 650 acfm; and
 - b. the outlet VOC concentration shall be maintained within 3.06 ppm to 19.89 ppm.

B. Operational Restrictions

1. Gas flow rate through the carbon adsorber system shall be continuously monitored by use of a pitot tube, or a corresponding parameter such as fan operating amperage or voltage. The gas flow rate shall remain within the range determined (per A.2.b) to be sufficient to ensure compliance with the emission limitations established for this emissions unit at all times when the Soil Vapor Extraction system (SVE) is in operation.
2. The inlet and outlet VOC concentrations shall be continuously monitored by use of a flame ionization detector or equivalent system. The outlet VOC concentration shall remain at or below the concentration determined (per A.2.b) to be sufficient to maintain the emission limitations set for this emission unit at all times when the SVE system is in operation.
3. As the carbon adsorption vessels become saturated with VOC, the canisters shall be changed out in a timely manner to ensure compliance with the VOC emission limits listed in Part A, above and the operating restriction listed in B.2, above.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall keep, for the life of the SVE project, records of the continuous monitoring of the following parameters associated with the carbon adsorber unit:
 - a. the monitored gas flow rate across the unit, in acfm;
 - b. the monitored VOC inlet and outlet concentrations, in ppm; and
 - c. the actual VOC emissions, in lbs/hr.

2. The permittee shall keep records for the life of the SVE project of the following information related to the carbon adsorber vessels:
 - the date of each carbon adsorber unit change; and
 - the manner of disposal of each of the saturated carbon adsorber vessels.
3. The permit to install for this emissions unit (P009) 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 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: tetrachlorethene

TLV for tetrachlorethene (mg/m3): 169 mg/m3

Maximum Hourly Emission Rate (g/sec): 0.0013

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.8

MAGLC (ug/m3): 4,023 ug/m3

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:

changes in the composition of the materials emitted, 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;

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

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.

4. 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 description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - 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 to the Director (Ohio EPA, Southwest District Office) a report detailing the determinations of minimum and maximum gas flow rates and outlet VOC concentrations required to ensure compliance with the emission limitations established in this permit. This report shall include calculations or other explanations sufficient to justify the determined ranges.
2. The permittee shall submit quarterly deviation (excursion) reports that detail all exceedances of the following parametric limits:
 - Gas flow rate across the carbon adsorber unit outside the proper range as determined per the requirement in A.2.b and
 - The VOC outlet concentration greater than the proper limit as determined per the requirement in A.2.b.
 These quarterly deviation (excursion) reports shall be submitted to the Director (Ohio EPA, Southwest District Office-DAPC, Dayton, Ohio) in accordance with Part I - General Terms and Conditions A.1.c.

E. Testing Requirements

1. Compliance with the specified emissions limitations in Section A.1. of this permit shall be demonstrated in accordance with the following methods:
 - Emission Limitation:
 - VOC emissions shall not exceed 0.05 lbs/hr.
 - Applicable Compliance Method:
 - The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of Sections C.1.c. of these T&C's.
 - Emission Limitation:
 - VOC emissions shall not exceed 0.22 tons/yr.
 - Applicable Compliance Method:
 - The permittee shall demonstrate compliance with the above limit based on the cumulative sum of all hourly VOC emissions for each calendar year.

F. Miscellaneous Requirements

1. None