



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
WOOD 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: 03-17071**

**Fac ID: 0387000088**

**DATE: 2/23/2006**

Jones-Hamilton Company  
Ray Hahn  
30354 Tracy Road  
Walbridge, OH 43465-9792

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  
309 South Fourth Street, Room 222  
Columbus, Ohio 43215

Sincerely,

*Michael W. Ahern*

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

CC: USEPA

NWDO



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**Permit To Install  
Terms and Conditions**

**Issue Date: 2/23/2006  
Effective Date: 2/23/2006**

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**FINAL PERMIT TO INSTALL 03-17071**

Application Number: 03-17071  
Facility ID: 0387000088  
Permit Fee: **\$1000**  
Name of Facility: Jones-Hamilton Company  
Person to Contact: Ray Hahn  
Address: 30354 Tracy Road  
Walbridge, OH 43465-9792

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**30354 Tracy Road  
Walbridge, Ohio**

Description of proposed emissions unit(s):  
**HCI production line**

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

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping 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 recordkeeping 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

**Jones-Hamilton Company**  
**PTI Application: 03-17071**  
**Issued: 2/23/2006**

**Facility ID: 0387000088**

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 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)**

**Jones-Hamilton Company**  
**PTI Application: 03-17071**  
**Issued: 2/23/2006**

**Facility ID: 0387000088**

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 Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

#### **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.

Jones-Hamilton Company  
 PTI Application: 03-17071  
 Issued: 2/23/2006

Facility ID: 0387000088

**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 ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

**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>
NO <sub>x</sub>	8.10
CO	6.79
HCl	1.98
PM10	0.61

7

**Jones-Hamilton Company**  
**PTI Application: 03-17071**  
**Issued: 2/23/2006**

**Facility ID: 0387000088**

**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>
P011 - HCl production line consisting of sodium bisulfate furnaces, finishing pot, HCl gas absorber, HCl loading and unloading operations, HCl storage tanks, and three wet scrubbers (modification to increase production capacity, See F.2)	OAC rule 3745-31-05(A)(3)  OAC rule 3745-17-07(A)  OAC rule 3745-17-10(B)

units which comprise the production line were previously permitted as emissions units P001, P004, P007, T001, T002, and T003

Applicable Emissions  
Limitations/Control Measures

see A.2.b

see A.2.b

Natural Gas Combustion  
Emissions:

1.85 pounds nitrogen oxides (NOx) per hour; 8.10 tons NOx per year

1.55 pounds carbon monoxide (CO) per hour; 6.79 tons CO per year

0.14 pound particulate emissions less than 10 microns in size (PM10) per hour; 0.61 ton PM10 per year (See A.2.d)

Scrubber S-200 emissions:  
0.21 pound hydrochloric acid (HCl) per hour; 0.92 ton HCl per year

Scrubber S-220 emissions:  
0.12 pound HCl per hour; 0.53 ton HCl per year

Scrubber S-500 emissions:  
0.12 pound HCl per hour; 0.53 ton HCl per year

Visible particulate emissions shall not exceed 0% opacity as a six-minute average from the exhaust of any stack serving this emissions unit

see A.2.a

## **2. Additional Terms and Conditions**

- 2.a** Best Available Technology (BAT) requirements for this emissions unit has been determined to be a HCl process recovery system consisting of three wet scrubbers that recover HCl at an minimum efficiency of 99%.
- 2.b** The emission limitation specified in this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.c** The hourly PM<sub>10</sub>, CO, and NO<sub>x</sub> emission limitations were established to represent the emission unit's potential to emit. Therefore, no additional monitoring, record keeping, and/or reporting requirements are necessary to ensure compliance with these emission limitations.
- 2.d** All particulate emissions are PM<sub>10</sub>.

## **B. Operational Restrictions**

- 1. The permittee shall burn only natural gas in this emissions unit.

## **C. Monitoring and/or Record keeping Requirements**

- 1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## **D. Reporting Requirements**

- 1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## **E. Testing Requirements**

- 1. 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 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not

later 180 days after modification of the emissions unit.

- b. The emission testing shall be conducted to demonstrate compliance with the mass rates of HCl for each of individual process wet scrubber. The emissions testing shall also be conducted to demonstrate the HCl recovery efficiency of each individual scrubber.
- c. Methods 1-4 and 26A of 40 CFR Part 60, Appendix A shall be employed to demonstrate compliance with the HCl emissions limitations. The minimum sampling time for each run shall be 60 minutes and the minimum sample volume 0.85 dry standard cubic meters (30 dry standard cubic feet).

The HCl recovery efficiency of each individual process wet scrubber shall be determined in accordance with the test methods and procedures above applied to the inlet and outlet of each individual process wet scrubber or an alternative test protocol approved by the Ohio EPA, Northwest District Office.

- d. The concentrations of HCl shall be calculated for each run as follows:  $C_{\text{HCl}} (\text{ppmv}) = 0.659 C_{\text{HCl}} (\text{mg/dscm})$ , where C (ppmv) is concentration in ppmv and C(mg/dscm) is concentration in milligrams per dry standard cubic meter as calculated by the procedure given in Method 26A. The permittee may use equivalent alternative measurement methods approved by the Northwest District Office.
- e. Compliance with the applicable concentration standard shall be determined by the average of three consecutive runs or by the average of any three of four consecutive runs. Each run shall be conducted under conditions representative of maximum process operations. All three process wet scrubbers are to be operated and tested simultaneously unless otherwise approved by the Ohio EPA, Northwest District Office.
- f. During the emission test, each operating parameter described in section F.2. shall be monitored and recorded with sufficient frequency to establish a representative value for that parameter, but no less frequently than once every 15 minutes.
- g. The permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northwest District Office no later than 30 days prior to the proposed test date(s). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s)

Emissions Unit ID: P011

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, Northwest District Office refusal to accept the results of the emission test(s).

- h. Personnel from the Ohio EPA, Northwest District Office 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 wet scrubbers.
  - i. 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 Ohio EPA, Northwest District Office within 60 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 Administrator and the Ohio EPA, Northwest District Office.
2. Compliance with the emission limitations in Section A.1. of the terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:  
 1.85 pounds NOx per hour  
 8.10 tons NOx per year

Applicable Compliance Method:

The hourly allowable NOx emission limitation above represents the potential to emit for this emissions unit and was established by multiplying an AP-42 emission factor of 100 lbs NOx/MMscf (Section 1.4 (7/98)) by the natural gas heating value of scf/1020Btu and multiplying by the burner rating of 18.86 MMBtu/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable NOx emission limitation above in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4 and 7.

The annual allowable NOx emission above represents the potential to emit for this emissions unit and was established by multiplying the potential hourly emissions by a maximum annual operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore, provided compliance with the hourly emission limitation is maintained, compliance with the annual limitation will be assumed.

- b. Emission Limitation:  
1.55 pounds CO per hour  
6.79 tons CO per year

Applicable Compliance Method:

The hourly allowable CO emission limitation above represents the potential to emit for this emissions unit and was established by multiplying an AP-42 emission factor of 84 lbs CO/MMscf (Section 1.4 (7/98)) by the natural gas heating value of scf/1020Btu and multiplying by the burner rating of 18.86 MMBtu/hr.

If required, the permittee shall demonstrate compliance with the hourly allowable NOx emission limitation above in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4 and 10.

The annual allowable CO emission above represents the potential to emit for this emissions unit and was established by multiplying the potential hourly emissions by a maximum annual operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore, provided compliance with the hourly emission limitation is maintained, compliance with the annual limitation will be assumed.

- c. Emission Limitation:  
0.14 pounds PM10 per hour  
0.61 tons PM10 per year

Applicable Compliance Method:

The hourly allowable PM10 emission limitation above represents the potential to emit for this emissions unit and was established by multiplying an AP-42 emission factor of 7.6 lbs PM10/MMscf (Section 1.4 (7/98)) by the natural gas heating value of scf/1020Btu and multiplying by the burner rating of 18.86 MMBtu/hr.

If required, the permittee shall demonstrate compliance with the gr/dscf limitation by testing in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

The annual allowable PM10 emission above represents the potential to emit for this emissions unit and was established by multiplying the potential hourly emissions by a maximum annual operating schedule of 8760 hrs/yr and dividing

Emissions Unit ID: P011

by 2000 lbs/ton. Therefore, provided compliance with the hourly emission limitation is maintained, compliance with the annual limitation will be assumed.

- d. Emission Limitation:  
0.21 pound HCl per hour and 0.92 ton HCl per year from Scrubber S-200 stack

Applicable Compliance Method:

The hourly allowable HCl emission limitation above represents the potential to emit for this egress point and is based on the physical capacity of this emissions unit (including a 99% HCl recovery rate for the process wet scrubber). The permittee shall demonstrate the potential to emit by the performance testing as required in condition E.I.

The annual allowable HCl emission above represents the potential to emit for this egress point of the emissions unit and was established by multiplying the potential hourly emissions by a maximum annual operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore, provided the hourly potential to emit is demonstrated, compliance with the annual limitation will be assumed.

- e. Emission Limitation:  
0.12 pound HCl per hour and 0.53 ton HCl per year from Scrubber S-220 stack

Applicable Compliance Method:

The hourly allowable HCl emission limitation above represents the potential to emit for this egress point and is based on the physical capacity of this emissions unit (including a 99% HCl recovery rate for the process wet scrubber). The permittee shall demonstrate the potential to emit by the performance testing as required in condition E.I.

The annual allowable HCl emission above represents the potential to emit for this egress point of the emissions unit and was established by multiplying the potential hourly emissions by a maximum annual operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore, provided the hourly potential to emit is demonstrated, compliance with the annual limitation will be assumed.

- f. Emission Limitation:  
0.12 pound HCl per hour and 0.53 ton HCl per year from Scrubber S-500 stack

Applicable Compliance Method:

The hourly allowable HCl emission limitation above represents the potential to emit for this egress point and is based on the physical capacity of this emissions

unit (including a 99% HCl recovery rate for the process wet scrubber). The permittee shall demonstrate the potential to emit by the performance testing as required in condition E.I.

The annual allowable HCl emission above represents the potential to emit for this egress point of the emissions unit and was established by multiplying the potential hourly emissions by a maximum annual operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore, provided the hourly potential to emit is demonstrated, compliance with the annual limitation will be assumed.

g. Emission Limitation:

Visible particulate emissions shall not exceed 0% opacity as a six-minute average from the exhaust of any stack serving this emissions unit

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

## F. Miscellaneous Requirements

1. The permittee shall develop the following written plans for this emissions unit. The plans shall be submitted to the Ohio EPA, Northwest District Office by the time periods indicated below:
  - a. an Operation Maintenance Plan (OMP) that ensures the process wet scrubbers are operated and maintained in accordance with the manufacturers recommendations. The OMP shall contain the evaluation of, and adjustment to, manufacturer's specifications of parameters such as weight percent of the HCl in the scrubber liquor, scrubber water supply pressure, scrubber water flow rate, etc. The OMP shall also include a monitoring frequency regarding each of the parameters indicated. The OMP plan shall be submitted to the Ohio EPA, Northwest District Office prior to the submittal of the "Intent to Test" required in section E.1.g above.
  - b. an equipment leak detection and repair (LDAR) plan that describes, in detail, the measures that will be put in place to control leaks of HCl emissions from process equipment. The LDAR plan shall be submitted to the Ohio EPA, Northwest District Office within 180 days after modification of this emissions unit.
2. The terms and conditions of this permit shall supersede the following: all of the terms and conditions regarding HCl emissions and emission units contained in the following:
  - a. all terms and conditions regarding HCl emissions and emissions units contained in PTI #03-1039 issued on February 25, 1981.
  - b. all terms and conditions regarding HCl storage tanks contained in PTI #03-1458 issued on October 26, 1983.
  - c. all terms and conditions regarding HCl storage tanks contained in PTI #03-16196 which was issued on October 26, 2004.
  - d. all terms and conditions contained in PTI #03-13540 which was issued on November 12, 2002.