



State of Ohio Environmental Protection Agency

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Columbus, OH 43216-1049

3/17/2009

RAY HAHN  
JONES-HAMILTON CO  
30354 TRACY RD  
WALBRIDGE, OH 43465

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 0387000088  
Permit Number: P0103785  
Permit Type: Initial Installation  
County: Wood

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate ("PTIO") which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully.

Ohio EPA maintains a document entitled "Frequently Asked Questions about the PTIO". The document can be downloaded from the DAPC Web page, [www.epa.state.oh.us/dapc](http://www.epa.state.oh.us/dapc), from the "Permits" link. This document contains additional information related to your permit, such as what activities are covered under the PTIO, who has enforcement authority over the permit and Ohio EPA's authorization to inspect your facility and records. Please contact the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469 if you need assistance.

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, OH 43215

If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Northwest District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page [www.epa.state.oh.us/dapc](http://www.epa.state.oh.us/dapc).

Sincerely,

*Michael W. Ahern*  
Michael W. Ahern, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-NWDO

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director





**State of Ohio Environmental Protection Agency  
Division of Air Pollution Control**

**FINAL**

**Air Pollution Permit-to-Install and Operate  
for  
JONES-HAMILTON CO**

Facility ID: 0387000088  
Permit Number: P0103785  
Permit Type: Initial Installation  
Issued: 3/17/2009  
Effective: 3/17/2009  
Expiration: 1/14/2019





State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Air Pollution Permit-to-Install and Operate**  
for  
JONES-HAMILTON CO

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**Final Permit-to-Install and Operate**  
**Permit Number:** P0103785  
**Facility ID:** 0387000088  
**Effective Date:** 3/17/2009

## Authorization

Facility ID: 0387000088  
Application Number(s): A0035772  
Permit Number: P0103785  
Permit Description: Installation of hydrochloric acid production line and sodium bisulfate production operation.  
Permit Type: Initial Installation  
Permit Fee: \$1,500.00  
Issue Date: 3/17/2009  
Effective Date: 3/17/2009  
Expiration Date: 1/14/2019  
Permit Evaluation Report (PER) Annual Date: Apr 1 - Mar 31, Due May 15

This document constitutes issuance to:

JONES-HAMILTON CO  
30354 TRACY ROAD  
Northwood, OH 43465

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northwest District Office  
347 North Dunbridge Road  
Bowling Green, OH 43402  
(419)352-8461

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section 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 described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski  
Director



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**  
**Permit Number:** P0103785  
**Facility ID:** 0387000088  
**Effective Date:** 3/17/2009

## Authorization (continued)

Permit Number: P0103785  
Permit Description: Installation of hydrochloric acid production line and sodium bisulfate production operation.

Permits for the following emissions unit(s) or groups of emissions units are in this document as indicated below:

<b>Emissions Unit ID:</b>	<b>P013</b>
Company Equipment ID:	HCl production line
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

<b>Emissions Unit ID:</b>	<b>P014</b>
Company Equipment ID:	NaHSO4 production
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



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**Final Permit-to-Install and Operate**

**Permit Number:** P0103785

**Facility ID:** 0387000088

**Effective Date:** 3/17/2009

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.



If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Northwest District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the



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Division of Air Pollution Control

**Final Permit-to-Install and Operate**

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change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



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## **B. Facility-Wide Terms and Conditions**



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**Final Permit-to-Install and Operate**

**Permit Number:** P0103785

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**Effective Date:** 3/17/2009

1. 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).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.



State of Ohio Environmental Protection Agency  
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**Final Permit-to-Install and Operate**

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**Effective Date:** 3/17/2009

## **C. Emissions Unit Terms and Conditions**



**1. P013, HCl production line**

**Operations, Property and/or Equipment Description:**

Hydrochloric Acid production line

a) 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.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p><u>Scrubber S-200 emissions from Plant #1 and Plant #2:</u>            0.21 pounds hydrochloric acid (HCl) per hour; 0.92 ton HCl per year</p> <p><u>Scrubber S-221 emissions:</u>            0.071 pounds HCl per hour; 0.31 ton HCl per year</p> <p><u>Scrubber S-501 emissions:</u>            0.071 pounds HCl per hour; 0.31 ton HCl per year</p> <p>Visible particulate emissions shall not exceed 0% opacity as a six-minute average from the exhaust of any stack serving this emissions unit.</p> <p>See b)(2)a.</p>
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	See b)(2)b.



(2) Additional Terms and Conditions

- a. This permit to install and operate (PTIO) takes into account the following voluntary restrictions as proposed by the permittee for the purpose of establishing practically and legally enforceable limitations representing the potential to emit for HCl from this emissions unit:
  - i. use of a HCl process recovery system consisting of three wet scrubbers that recover HCl at a minimum efficiency of 99%.
- b. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the following pollutants associated with the products of combustion from this air contaminant source since the uncontrolled potential to emit for each pollutant is less than 10 tons per year:

Pollutant	Potential to emit (tons/yr)
Nitrogen Oxide (NOx)	8.05
Carbon Monoxide (CO)	6.76
Volatile Organic Compounds (VOC)	0.44
Sulfur Dioxide (SO2)	0.05
Filterable particulate matter 10 microns or less in size (PM10)	0.15

The potential to emit for the above pollutants was determined by multiplying AP-42 emission factors in lbs/MMscf from Section 1.4 (7/98), a maximum natural gas usage rate of 161 MMscf/yr and dividing by 2000 lbs/ton. The maximum natural gas usage rate is based on a natural gas heating value of 1020 Btu/scf and a maximum operating schedule of 8,760 hrs/yr.

- c. HCl emissions from the acid production line are considered condensable emissions of PM10. Condensable PM10 is not required to be considered in new source review permitting during a specified transition period as provided in final regulations in the "Federal Register/Vol 73, No. 96/Friday, May 16, 2008/Rules and Regulations".
  - d. The hourly and annual emission limitations for HCl were established to present the emission unit's potential to emit. Therefore, no additional monitoring, record keeping, and reporting requirements are necessary to ensure compliance with these emissions limitations.
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) None.



e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) 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 180 days after the emission unit commences operation.
- b. The emission testing shall be conducted to demonstrate compliance with the mass rates of HCl for process wet scrubbers S-221 and S-501. The emissions testing shall also be conducted to demonstrate the HCl recovery efficiency of each 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 process wet scrubbers S-221 and S-501 shall be determined in accordance with the test methods and procedures above applied to the inlet and outlet of each 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:  $C_{HCl} \text{ (ppmv)} = 0.659 C_{HCl} \text{ (mg/dscm)}$ , 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. The two process wet scrubbers are to be operated and tested simultaneously (if possible) unless otherwise approved by the Ohio EPA, Northwest District Office.
- f. During the emission test, each operating parameter (noted in condition g)(1)a. below) shall be monitored and recorded with sufficient frequency to establish a representative value for each 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) 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 thirty (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 Administrator and the Ohio EPA, Northwest District Office.
- (2) Compliance with the emission limitations in Section b)(1) of the terms and conditions shall be determined in accordance with the following methods:
- a. Emission Limitation:  
 0.21 pounds HCl per hour and 0.92 tons HCl per year from Scrubber S-200  
  
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 has demonstrated compliance with the hourly emission limitation during a stack test conducted on September 13, 2006.  
  
 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.
  - b. Emission Limitation:  
 0.071 pounds HCl per hour and 0.31 tons HCl per year from Scrubber S-221  
  
Applicable Compliance Method:  
 The hourly allowable HCl emission limitation represents the potential to emit for this egress point and is based on the physical capacity of this emissions unit (including a 95% HCl recovery rate for the process wet scrubber). The permittee shall demonstrate compliance with the hourly emission limitation by the performance testing as required in section f)(1).



The annual allowable HCl emission limitation 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.

c. Emission Limitation:

0.071 pounds HCl per hour and 0.31 tons HCl per year from Scrubber S-501

Applicable Compliance Method:

The hourly allowable HCl emission limitation 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 compliance with the hourly emission limitation by the performance testing as required in section f)(1).

The annual allowable HCl emission limitation 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.

d. 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](#)).

g) 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 f)(1) 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



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equipment. The LDAR plan shall be submitted to the Ohio EPA, Northwest District Office within 180 days after the installation of this emissions unit.



**2. P014, NaHSO4 production**

**Operations, Property and/or Equipment Description:**

Sodium bisulfate production

a) 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.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>0.23 pound of particulate matter 10 microns or less in size (PM10) per hour, 1.00 tons PM10 per year from the SBS Wet Scrubber (S-101) that controls the emissions from Spray Tower of Plant #2</p> <p>0.18 pound PM10 per hour, 0.80 tons PM10 per year (for emission units P012 and P014 combined) from SBS Wet Scrubber (SC-550) that controls SBS packaging</p> <p>0.01 grains PM10 per dry standard cubic foot (gr/dscf), 0.49 ton PM10 per year from baghouse BH-506 controlling the conveyance operation of Plant #2</p> <p>Visible particulate emissions shall not exceed 0% opacity as a six-minute average from any associated stack serving this emissions unit</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)a.
b.	OAC rule 3745-17-07(A)	See b)(2)c.
c.	OAC rule 3745-17-11(B)	See b)(2)d.

(2) Additional Terms and Conditions

- a. This permit to install and operate (PTIO) takes into account the following voluntary restrictions as proposed by the permittee for the purpose of establishing practically and legally enforceable limitations representing the potential to emit for PM10 from this emissions unit:
  - i. use of a baghouse (BH-506) with a maximum outlet concentration of 0.01 gr PM10/dscf to control conveyance operation;
  - ii. use of a wet scrubber (S-101) with a 95% control efficiency for particulate matter to control emissions from Spray Tower of Plant #2.
  - iii. use of a wet scrubber (SC-550) with a 97.5% control efficiency for particulate matter to control emissions from SBS packaging operations.
  - iv. Visible particulate emissions shall not exceed 0% opacity as a six-minute average from any stack serving this emissions unit.
- b. All emissions of particulate matter emitted from this emissions unit are PM10.
- c. The visible particulate emission limitation specified by this rule is less stringent than the emission limitation established pursuant to the voluntary restriction taken into account in this permit.
- d. The emission limitation(s) specified by this rule are less stringent than the emission limitation(s) established pursuant to the voluntary restrictions taken into account in this permit.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate and maintain equipment to continuously monitor the following control equipment operating parameters while the emissions unit is in operation:
  - a. the pressure drop across baghouse (BH-506);
  - b. the scrubber water flow rate for scrubber (S-101);
  - c. the water supply pressure for scrubber (SC-101);



- d. the scrubber water flow rate for scrubber (SC-550);
- e. the water supply pressure for scrubber (SC-550)

The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

- (2) The permittee shall record the following information:
  - a. the pressure drop across baghouse (BH-506) on a weekly basis.
  - b. for scrubbers S-101 and SC-505 the following shall be recorded on a daily basis:
    - i. the, water flow for each scrubber; and
    - ii. the water supply pressure for each scrubber.
- (3) The acceptable operating ranges/values of the operating parameters indicated in d)(1) are specified below:
  - a. the acceptable pressure drop across baghouse (BH-506) is 0.5 to 5.5 inches of water;
  - b. the acceptable water flow rate for scrubber S-101 shall be established prior to the date the permittee is required to perform stack testing for this emissions unit [see f)(1)]. The procedures for establishing the acceptable water flow rate are specified in e)(1);
  - c. the acceptable water supply pressure for scrubber S-101 shall be established prior to the date the permittee is required to perform stack testing for this emissions unit [see f)(1)]. The procedures for establishing the acceptable water flow rate are specified in e)(1);
  - d. the acceptable water flow rate shall not be continuously maintained at a value of no less than 5 gallons per minute for scrubber (SC-550);
  - e. the acceptable water supply pressure shall be continuously maintained at a value of no less than 20 pounds per square inch (guage) for scrubber (SC-550).

The acceptable operating ranges/values apply at all times while the emissions unit is in operation.

- (4) The permittee shall measure and record once per day, the weight percent of sodium bisulfate of the scrubber liquor of S-101 and SC-550 by analyzing actual liquor samples utilizing appropriate test methods. The acceptable maximum weight percent of sodium bisulfate in the scrubber liquor for each scrubber shall be maintained at a value not to exceed 29%.
- (5) Whenever the monitored ranges/values for the operating parameters specified in d)(3) and d)(4) deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:



- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This operating parameter ranges/values specified in this permit are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted operating parameter ranges/values based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled operations of emissions unit(s). In addition, approved revisions to the range or limit may be incorporated into this permit by means of an administrative modification.

e) Reporting Requirements

- (1) Not later than 30 days prior to the proposed test date(s) required in f)(1), the permittee shall submit documentation to the appropriate Ohio EPA District Office or local air agency indicating the appropriate ranges/values for the following operating parameters for scrubber S-101:
  - a. water flow rate; and
  - b. water supply pressure.



The documentation submitted shall include information (i.e. manufacturer=s specifications, engineering design data, etc) and a comprehensive explanation for the basis of the proposed operating ranges/values. The proposed operating ranges/values must be approved in writing by the appropriate Ohio EPA District Office or local air agency and will become effective for the duration of this permit upon approval.

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (3) The permittee shall identify in the annual permit evaluation report the following information concerning the operation of baghouse BH-506, scrubber S-101, and scrubber SC-550 during the 12-month reporting period for this/these emissions unit(s):
  - a. each period of time (start time and date, and end time and date) when the any of the operating parameters specified in d)(3) and d)(4) were outside of the appropriate range or limit contained in this permit;
  - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not controlled by the appropriate control devices;
  - c. each incident of deviation described in Aa@ or "b" (above) where a prompt investigation was not conducted;
  - d. each incident of deviation described in Aa@ or "b" where prompt corrective action, that would bring the operating parameters into compliance with the appropriate range or limit contained in this permit, was determined to be necessary and was not taken; and
  - e. each incident of deviation described in Aa@ or "b" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

f) 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 180 days after the emission unit commences operation.
  - b. The emission testing shall be conducted to demonstrate compliance with the mass emission limitations for PM10 from the wet scrubber, S-101.
  - c. The following test method(s) shall be employed to demonstrate compliance with the emissions limitations: for PM10, Methods 201/201A 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.



- d. The test(s) shall be conducted while the emissions unit is operating at 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 Ohio EPA, Northwest District Office. 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, Northwest District Office refusal to accept the results of the emission test(s).
  - f. 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 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 Ohio EPA, Northwest District Office 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 Ohio EPA, Northwest District Office.
- (2) Compliance with the emission limitations in section b)(1) of the terms and conditions of this permit shall be determined in accordance with the following methods:
- a. Emissions Limitation:  
0.18 lb PM10 per hour, 0.80 ton PM10 per year from the SBS Wet Scrubber (S-550)  
  
Applicable Compliance Method:  
The permittee has demonstrated compliance with the hourly emission limitation during a stack test conducted on November 6, 2006. If required, compliance with the hourly limitation shall be determined in accordance with Methods 201/201A 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 tons per year limitation was developed by multiplying the lb/hr allowable mass emissions rate by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
  - b. Emissions Limitation:  
0.23 pounds PM10 per hour, 1.00 tons PM10 per year from wet scrubber S-101 controlling Plant #2 Spray Tower  
  
Applicable Compliance Method:  
The permittee shall demonstrate compliance with the hourly emission limitation by the performance testing as required in section f)(1).



The tons per year limitation was developed by multiplying the lb/hr allowable mass emissions rate by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emissions Limitation:  
0.01 gr PM10/dscf, 0.49 tons PM10 per year from baghouse BH-506

Applicable Compliance Method:

The permittee has demonstrated compliance with the hourly concentration limitation by performing stack testing on identical sources, BH-504 and BH-505, on September 12, 2006.

The annual emission limitation was established by the multiplying the maximum outlet concentration of 0.01 gr PM10/dscf, a maximum volumetric flow rate of 1300 acfm, a conversion factor of 60 minutes/hr, a conversion factor of 1.0 lb/7000 grains, a maximum operating schedule of 8760 hrs/yr, and a conversion factor of 2000 lbs/ton. Therefore, provided compliance is shown with the gr/dscf limitation, compliance with the annual limitation will be assumed.

- d. Emissions Limitation:  
Visible particulate emissions shall not exceed 0% opacity as a six-minute average from any associated stack with this emissions unit

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be determined in accordance with the test methods and procedures specified in US EPA Method 9 of 40 CFR Part 60, Appendix A.

- g) Miscellaneous Requirements
  - (1) None.