west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
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Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

Evaluation Memo

Application Number:	R13-1789E
Facility ID Number:	039-00071
Name of Applicant:	Reagent Chemical & Research, Inc.
Name of Facility:	Institute Plant
Application Type:	Class I Administrative Update
Received Date:	May 23, 2016
Complete Date:	May 31, 2016
Due Date:	July 23, 2016
Permit Writer:	John legg

John Legg
5/31/16

Reagent Chemical & Research, Inc. submitted this Class I Administrate Update application to correct overlooked administrative changes resulting from the removal of the hydrogen chloride (HCl) water scrubber (2C) in Permit R13-1789D.

The changes made to permit R13-1789D are shown in the compare file which is found in Attachment 1 to this evaluation.

ATTACHMENT 1

Changes Made to Permit R13-1789D to Arrived at Permit R13-1789E

Reagent Chemical & Research, Inc.

Physical Address: Route 25
Institute, WV 25112

Mailing Address: 115 US Hwy 202
Ringoes, NJ 08551

WordPerfect Document Compare Summary

Original document: Q:\AIR_QUALITY\J_LEGG\Reagent Chemical\R13-1789E\039-00071_PERM_13-1789D .wpd
Revised document: @PFDesktop\:MyComputer\Q:\AIR_QUALITY\J_LEGG\Reagent Chemical\R13-1789E\039-00071_PERM_13-1789E .wpd
Deletions are shown with the following attributes and color:
~~Strikeout~~, Blue RGB(0,0,255).
Deleted text is shown as full text.
Insertions are shown with the following attributes and color:
Double Underline, Redline, Red RGB(255,0,0).

The document was marked with 34 Deletions, 17 Insertions, 0 Moves.

West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

Class I Administrative Update Permit

R13-1789~~D~~E

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

Reagent Chemical & Research, Inc.
Institute
039-00071

William F. Durham
Director

Issued: ~~April 29~~May 31, 2016

This permit will supercede and replace Permit R13-1849~~C~~D.

Facility Location:	Institute, Kanawha County, West Virginia
Mailing Address:	115 US Highway 202; Ringoes, NJ 08551
Facility Description:	HCl Distribution Facility
NAICS Codes:	424690
UTM Coordinates:	432 km Easting • 4248 km Northing • Zone 17
Permit Type:	Class I Administrative Update

Description of Change:

~~Remove~~Overlooked administrative changes resulting from the removal of the hydrogen chloride (HCl) water scrubber ~~identified as 2C. All other equipment that had been serviced by this scrubber, which includes some inactive storage tanks and process equipment, will be mothballed in place~~(2C) in Permit R13-1789D.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

The source is not subject to 45CSR30.

IN ACCORDANCE WITH THE PERMIT APPLICATION AND ITS AMENDMENTS, THIS PERMIT IS LIMITED AS FOLLOWS:

A. SPECIFIC REQUIREMENTS

1. *[Reserved]*

2. Maximum emissions to the atmosphere at Emission Point ID No. 2E following the HCl water scrubber (Control Device ID No. 4C) shall not exceed the following:

Chemical	Maximum Emission Rate	
	Hourly (lb/hr)	Annual (TPY)
Hydrogen Chloride (HCl)	0.01	0.01

3. The HCl water scrubber (Control Device ID No. 4C) shall be maintained and operated so as to reduce HCl emissions by 99.8% by weight or more.

4. *[Reserved]*

5. The concentration of HCl acid vapor vented through Emission Point ID 2E shall not exceed 14.18 mg/dscm.

6. *[Reserved]*

7. The HCl scrubber (Control Device ID No. 4C) utilized to control emissions of HCl vapors shall be operated at a minimum liquor flow rate of 3 gallons per minute.

8. *[Reserved]*

9. The maximum fill rate/throughput of treated HCl to tank TK-7 shall not exceed 125 gallons per minute.

10. The throughput of off-site treated HCl to be unloaded for storage to the facility from tank trucks and railcars shall not exceed 20,000,000 gallons/year (based on 1 jumbo railcar/week, 5 days per week, and 52 weeks/yr). Annual throughput shall be based on a 12-month rolling total.

11. Railcar air pad venting of HCl laden air to the HCl water scrubber (Control Device ID No. 4C) to reduce railcar pressure (25 psig maximum) to 0 psig (atmospheric pressure) shall take a minimum of two (2) hours to complete.

B. OTHER REQUIREMENTS

1. The permitted facility shall comply with all applicable provisions of 45CSR4. The principal provisions of 45CSR4 applicable to the permitted facility are as follows:

   §45-4-3.1
   No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.

2. The permitted facility shall comply with all applicable provisions of 45CSR7, provided, however, that compliance with any more stringent limitations set forth under Section A of this permit shall also be demonstrated. The principal provisions of 45CSR7 applicable to the permitted facility are as follows:

§45-7-3.7
No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to subsection 5.1 is required to have a full enclosure and be equipped with a particulate matter control device.

§45-7-4.2
Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in Table 45-7B found at the end of this rule.

§45-7-5.1
No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.

§45-7-8.1
At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

3. To determine compliance with HCl emission limits and vapor concentration limits set forth in Section A, SPECIFIC REQUIREMENTS No.~~1, No.~~ 2~~, No. 4,~~ and No. 5, the permittee shall perform stack tests in accordance with methods described in 45CSR7A - TP-4 - Compliance Test Procedures for Series 7 - To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations or an alternative method approved by the Director. These tests shall be performed upon the request of the Director or his/her duly authorized representative.

4. To determine compliance with the ~~two~~one (~~2~~1) scrubber liquor flow rate limit~~s~~ set forth in Section A, SPECIFIC REQUIREMENTS No.~~6 and No.~~ 7, the permittee shall keep records of the ~~two (2)~~ scrubber liquor flow rate~~s~~ at a frequency of no less than one time per shift. This information shall be recorded on a form similar to the one given in ATTACHMENT A of this permit and shall be kept on site for a period of five (5) years. Certified copies of these records shall be made available to the Director or his/her duly authorized representative.

5. To determine compliance with the maximum fill rate/throughput of ~~untreated (raw) HCl solution into tank TK-1B and~~ purified HCl solution into Tank TK-7 as set forth in Section A, SPECIFIC REQUIREMENTS No.~~8 and No.~~ 9, the permittee shall keep records of the number of transfer hours and the average gallons per minute of HCl solution pumped to the ~~two (2)~~ tank~~s~~. This information shall be recorded on a form similar to the one given in ATTACHMENT B of this permit and shall be kept on site for a period of five (5) years. Upon request, certified copies of these records shall be made available to the Director or his/her duly authorized representative.

6. The permittee shall keep records of the amount of ~~untreated and~~ off-site purified HCl solution received by the facility as set forth in Section A, SPECIFIC REQUIREMENTS No. 10 and 11. This information shall be recorded on a form similar to the one given in Attachment C of this permit and shall be kept on site for a period of five (5) years. Upon request, certified copies of these records shall be made available to the Director or his/her duly authorized representative.

7. To determine compliance with the minimum time requirement to vent off railcar air pad pressure/HCl laden air to the HCl water scrubber (Control Device ID No. 4C) as set forth in Section A, SPECIFIC REQUIREMENTS No. 12, the permittee shall record the railcar's initial/maximum pressure and pressure readings taken over half-hour intervals until the railcar's air pad pressure is zero (0). This information shall be kept on site for a period of five (5) years. Upon request, certified copies of these records shall be made available to the Director or his/her duly authorized representative.

8. All reports required under the conditions of this permit shall be forwarded to:

   Director
   WVDEP Division of Air Quality
   601 57th Street, SE
   Charleston, WV 25304

9. The pertinent sections of 45CSR13 applicable to this facility include, but are not limited to, the following:

   §45-13-6.1
   At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or other tests the Secretary may specify shall be conducted to determine compliance.

   §45-13-10.2
   The Secretary may suspend or revoke a permit or general permit registration if, after (6) months from the date of issuance, the holder of the permit cannot provide the Secretary, at the Secretary's request, with written proof of a good faith effort that construction, modification, or relocation, if applicable, has commenced. Such proof shall be provided not later than thirty (30) days after the Secretary's request. If construction or modification of a stationary source is discontinued for a period of eighteen (18) months or longer, the Secretary may suspend or revoke the permit or general permit registration.

   §45-13-10.3
   The Secretary may suspend or revoke a permit or general permit registration if the plans and specifications upon which the approval was based or the conditions established in the permit are not adhered to. Upon notice of the Secretary's intent to suspend, modify or revoke a permit, the permit holder may request a conference with the Secretary in accordance with the provisions of W. Va. Code § 22-5-5 to show cause why the permit or general permit registration should not be suspended, modified or revoked.

10. The permittee shall comply with all applicable provisions of 40 CFR 68 - Chemical Accident Prevention Provisions.

C. GENERAL REQUIREMENTS

1. In accordance with 45CSR22 - "Air Quality Management Fee Program", the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such CTO shall be renewed annually, shall be maintained on the premises for which the Certificate has been issued, and shall be made immediately available for inspection by the Director or his/her duly authorized representative.

2. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

3. The permitted facility shall be constructed and operated in accordance with information filed in Permit Application R13-1789, R13-1789A, R13-1789B, R13-1789C, R13-1789D, R13-178E and any amendments thereto. The Director may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.

4. At such reasonable time(s) as the Director may designate, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in the permit application and/or applicable regulations. Test(s) shall be conducted in such a manner as the Director may specify or approve and shall be filed in a manner acceptable to the Director. The Director, or his/her duly authorized representative, may at his option witness or conduct such test. Should the Director exercise his option to conduct such test(s), the permittee shall provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railings, and ladders to comply with generally accepted good safety practices. For any tests to be conducted by the permittee, a test protocol shall be submitted to the DAQ by the permittee at least thirty (30) days prior to the test and shall be approved by the Director. The Director shall be notified at least fifteen (15) days in advance of the actual dates and times during which the test will be conducted.

5. In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations, either in whole or in part, authorized by this permit, the permittee shall notify the Director, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

6. The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

7. The permittee shall notify the Director, in writing, within fifteen (15) calendar days of the commencement of the construction, modification, or relocation activities authorized under this permit.

8. The permittee shall notify the Director, in writing, at least fifteen (15) calendar days prior to actual startup of the operations authorized under this permit.

9. This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13.

10. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7.

11. On or before July 1st of each calendar year, the permittee herein shall prepare and submit an emission inventory for the previous calendar year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Director may, based upon the type and quantity of the pollutants emitted, establish a submittal frequency other than on an annual basis.

ATTACHMENT A(1)

Scrubber Liquor Flow to HCl Scrubber 1C &4C
Reagent Chemical & Research, Inc.
R13-1789DE
Plant ID No.:039-00071

Year

Date	Shift	HCl Scrubber 1C4C Liquor flow rate (2) (gal/min)
HCl Scrubber 4C Liquor flow rate (3) (gal/min)	Shift 1	
	Shift 2	

(1) This record shall be maintained on site for a period of five (5) years from its generation date. Upon request, the CERTIFICATION OF DATA ACCURACY statement appearing on the reverse side of the form must be completed and certified copies shall be made available to the Director or his/her authorized representative.

(2) Minimum liquor flow rate of HCl Scrubber (Control Device ID No. 1C4C) = 2 gal/min3 gallons/min.

~~(3) Minimum liquor flow rate of HCl Scrubber (Control Device ID No. 4C) = 3 gallons/min.~~

ATTACHMENT B(1)
Flow to Receiving Tank 1B (TK-1B) & Storage Tank 7 (TK-7)
Reagent Chemical & Research, Inc.
R13-1789~~D~~E
Plant ID No.:039-00071

Year

Month	~~Tank TK-1B~~Tank TK-7		
	Gallons Received (gal)	Transfer Hours (hrs)	Avg. ~~Pump Rate (2) (3) (gal/min)Gallons Received (gal)Transfer Hours (hrs)Avg.~~ Pump Rate (2) (3) (gal/min)
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			
Year to Date			
12 Mo. Rolling Total			

(1) This record shall be maintained on site for a period of five (5) years from its generation date. Upon request, the CERTIFICATION OF DATA ACCURACY statement appearing on the reverse side of this form must be completed, and certified copies shall be made available to the Director or his/her authorized representative.
(2) Avg. Pump Rate (gal/min) = Gallons Received (gal) / (60* Transfer Hours)
(3) Avg. Pump Rate (gal/min) shall not exceed:
~~45~~125 gal/min for TK-~~1B~~7
~~125 gal/min for TK-7~~

ATTACHMENT C(1)
Annual Throughput of ~~Untreated (Raw) &~~ Off-Site Purified HCl Solution
Reagent Chemical & Research, Inc.
R13-1789~~D~~E
Plant ID No.:039-00071

Year

Month	Off-Site Purified HCl Stored by Facility (2)
	Gallons Received (gal)
January	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	
Year to Date	
12 Mo. Rolling Total (4)	

(1) **This record shall be maintained on site for a period of five (5) years from its generation date. Upon request, the CERTIFICATION OF DATA ACCURACY statement appearing on the reverse side of the form must be completed, and copies shall be made available to the Director or his/her authorized representative.**

(2) **The Annual Throughput (12 Month Rolling Total) shall not exceed:**
20,000,000 gallons/year for HCl Processed at the Facility

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature[1] _____ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name and Title _____
(please print or type) Name Title

Telephone No. _____ Fax No.

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[1] This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

(ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.