



**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**  
#7010 2780 0001 8879 2581

Union Carbide Corporation  
A Subsidiary of The Dow Chemical Company  
P.O. Box 8004  
437 MacCorkle Avenue, SW  
South Charleston, WV 25303  
USA

March 10, 2016

Mr. William F. Durham, Director  
WV Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

Dear Director Durham,

**Attention: Ms. Beverly McKeone**  
**NSR Permits Program Manager**

**Ms. Carrie McCumbers**  
**Title V Program Manager**

RE: Union Carbide Corporation (UCC) South Charleston Operations  
Site Remediation - Facility ID# 039-00003  
45CSR13 Class II Administrative Update to Permit No. R13-2840A  
45CSR30 Minor Modification to Permit No. R30-03900003-2012

Enclosed are two hard copies and two CDs of a combined 45CSR13/45CSR30 application for a Class II Administrative Update/Minor Modification to establish permit conditions for scrubber maintenance (acid-washing) operations.

A printed copy of the Class 1 Legal Advertisement to be published in a local newspaper is included with the application. When published, the affidavit of publication will be provided to your office.

A check in the amount of \$300 is enclosed for payment of application fees in accordance with 45CSR§13-4.4.

If there are any questions regarding the attached permit application, please call me at (304) 747-1354.

Sincerely yours,

Jay Fedczak  
WVO EH&S Environmental Specialist

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Application Fee



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**DIVISION OF AIR QUALITY**

601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
(304) 926-0475  
[www.dep.wv.gov/daq](http://www.dep.wv.gov/daq)

**APPLICATION FOR NSR PERMIT  
AND  
TITLE V PERMIT REVISION  
(OPTIONAL)**

PLEASE CHECK ALL THAT APPLY TO NSR (45CSR13) (IF KNOWN):

- CONSTRUCTION     MODIFICATION     RELOCATION  
 CLASS I ADMINISTRATIVE UPDATE     TEMPORARY  
 CLASS II ADMINISTRATIVE UPDATE     AFTER-THE-FACT

PLEASE CHECK TYPE OF 45CSR30 (TITLE V) REVISION (IF ANY):

- ADMINISTRATIVE AMENDMENT     MINOR MODIFICATION  
 SIGNIFICANT MODIFICATION

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS ATTACHMENT S TO THIS APPLICATION

**FOR TITLE V FACILITIES ONLY:** Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

**Section I. General**

1. Name of applicant (as registered with the WV Secretary of State's Office): Union Carbide Corporation (UCC)	2. Federal Employer ID No. (FEIN): 13-142-1730
3. Name of facility (if different from above): South Charleston	4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input checked="" type="checkbox"/> BOTH
5A. Applicant's mailing address: PO Box 8361 South Charleston, WV 25303	5B. Facility's present physical address: 437 MacCorkle Avenue SW South Charleston, Kanawha County, WV
6. <b>West Virginia Business Registration.</b> Is the applicant a resident of the State of West Virginia? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <ul style="list-style-type: none"> <li>- If YES, provide a copy of the <b>Certificate of Incorporation/Organization/Limited Partnership</b> (one page) including any name change amendments or other Business Registration Certificate as <b>Attachment A</b>.</li> <li>- If NO, provide a copy of the <b>Certificate of Authority/Authority of L.L.C./Registration</b> (one page) including any name change amendments or other Business Certificate as <b>Attachment A</b>.</li> </ul>	
7. If applicant is a subsidiary corporation, please provide the name of parent corporation: The Dow Chemical Company	
8. Does the applicant own, lease, have an option to buy or otherwise have control of the <i>proposed site</i> ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <ul style="list-style-type: none"> <li>- If YES, please explain:    UCC is a subsidiary of The Dow Chemical Company. UCC owns and operates the facility.</li> <li>- If NO, you are not eligible for a permit for this source.</li> </ul>	

9. Type of plant or facility (stationary source) to be <b>constructed, modified, relocated, administratively updated</b> or temporarily permitted (e.g., coal preparation plant, primary crusher, etc.):  Existing air pollution control device (wet scrubber) for existing groundwater/soil remediation system.	10. North American Industry Classification System (NAICS) code for the facility:  325199
11A. DAQ Plant ID No. (for existing facilities only): 039 – 00003	11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only): R13-2840A, R30-03900003-2012

**All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.**

<p>12A.</p> <ul style="list-style-type: none"> <li>For <b>Modifications, Administrative Updates</b> or <b>Temporary permits</b> at an existing facility, please provide directions to the <i>present location</i> of the facility from the nearest state road;</li> <li>For <b>Construction</b> or <b>Relocation permits</b>, please provide directions to the <i>proposed new site location</i> from the nearest state road. Include a <b>MAP</b> as <b>Attachment B</b>.</li> </ul> <p>From Charleston, travel I-64 West and take the Montrose Exit. Turn right towards the river and proceed straight through the traffic light across MacCorkle Avenue directly to the South Charleston facility.</p>		
12.B. New site address (if applicable): Not Applicable	12C. Nearest city or town: South Charleston	12D. County: Kanawha
12.E. UTM Northing (KM): 4,246.927	12F. UTM Easting (KM): 440.026	12G. UTM Zone: 17
<p>13. Briefly describe the proposed change(s) at the facility: This administrative update application requests the addition of an acid washing maintenance operation for the existing scrubber system.</p>		
<p>14A. Provide the date of anticipated installation or change: <b>upon issuance of this permit</b></p> <ul style="list-style-type: none"> <li>If this is an <b>After-The-Fact</b> permit application, provide the date upon which the proposed change did happen:     /     /</li> </ul>		<p>14B. Date of anticipated Start-Up if a permit is granted: <b>Upon issuance of permit</b></p>
<p>14C. Provide a <b>Schedule</b> of the planned <b>Installation of/Change</b> to and <b>Start-Up</b> of each of the units proposed in this permit application as <b>Attachment C</b> (if more than one unit is involved).     <b>Not applicable – existing control device</b></p>		
<p>15. Provide maximum projected <b>Operating Schedule</b> of activity/activities outlined in this application: Hours Per Day 6     Days Per Month 1     Months Per Year 12</p>		
<p>16. Is demolition or physical renovation at an existing facility involved?   <input type="checkbox"/> YES     <input checked="" type="checkbox"/> NO</p>		
<p>17. <b>Risk Management Plans.</b> If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see <a href="http://www.epa.gov/ceppo">www.epa.gov/ceppo</a>), submit your <b>Risk Management Plan (RMP)</b> to U. S. EPA Region III.</p>		
<p>18. <b>Regulatory Discussion.</b> List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (<i>if known</i>). A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance (<i>if known</i>). Provide this information as <b>Attachment D</b>.</p>		
<p><b>Section II. Additional attachments and supporting documents.</b></p>		
<p>19. Include a check payable to WVDEP – Division of Air Quality with the appropriate <b>application fee</b> (per 45CSR22 and 45CSR13).</p>		
<p>20. Include a <b>Table of Contents</b> as the first page of your application package.</p>		
<p>21. Provide a <b>Plot Plan</b>, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as <b>Attachment E</b> (Refer to <b>Plot Plan Guidance</b>) .</p> <ul style="list-style-type: none"> <li>Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).</li> </ul>		
<p>22. Provide a <b>Detailed Process Flow Diagram(s)</b> showing each proposed or modified emissions unit, emission point and control device as <b>Attachment F</b>.     <b>N/A – no new proposed or modified emission unit, emission point and control device</b></p>		
<p>23. Provide a <b>Process Description</b> as <b>Attachment G</b>.</p> <ul style="list-style-type: none"> <li>Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).</li> </ul>		
<p><i>All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.</i></p>		
<p>24. Provide <b>Material Safety Data Sheets (MSDS)</b> for all materials processed, used or produced as <b>Attachment H</b>.</p> <ul style="list-style-type: none"> <li>For chemical processes, provide a MSDS for each compound emitted to the air. <b>N/A</b></li> </ul>		
<p>25. Fill out the <b>Emission Units Table</b> and provide it as <b>Attachment I</b>.</p>		
<p>26. Fill out the <b>Emission Points Data Summary Sheet (Table 1 and Table 2)</b> and provide it as <b>Attachment J</b>.</p>		
<p>27. Fill out the <b>Fugitive Emissions Data Summary Sheet</b> and provide it as <b>Attachment K</b>.     <b>N/A</b></p>		

28. Check all applicable **Emissions Unit Data Sheets** listed below:

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Bulk Liquid Transfer Operations                                    | <input type="checkbox"/> Haul Road Emissions     | <input type="checkbox"/> Quarry  |
| <input type="checkbox"/> Chemical Processes   | <input type="checkbox"/> Hot Mix Asphalt Plant   | <input type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities |
| <input type="checkbox"/> Concrete Batch Plant   | <input type="checkbox"/> Incinerator             | <input type="checkbox"/> Storage Tanks   |
| <input type="checkbox"/> Grey Iron and Steel Foundry  | <input type="checkbox"/> Indirect Heat Exchanger |  |
| <input type="checkbox"/> General Emission Unit, specify Groundwater/Soil Remediation System |  |  |

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L**.

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Absorption Systems        | <input type="checkbox"/> Baghouse                   | <input type="checkbox"/> Flare                 |
| <input type="checkbox"/> Adsorption Systems        | <input type="checkbox"/> Condenser                  | <input type="checkbox"/> Mechanical Collector  |
| <input type="checkbox"/> Afterburner               | <input type="checkbox"/> Electrostatic Precipitator | <input type="checkbox"/> Wet Collecting System |
| <input type="checkbox"/> Other Collectors, specify |   |  |

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M**. **N/A – Scrubber does not act as a control device during acid-washing maintenance activities proposed in this application.**

30. Provide all **Supporting Emissions Calculations** as **Attachment N**, or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O**.

➤ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and **Example Legal Advertisement** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33. **Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

YES       NO

➤ If YES, identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's **"Precautionary Notice – Claims of Confidentiality"** guidance found in the **General Instructions** as **Attachment Q**.

### Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Authority of Corporation or Other Business Entity | <input type="checkbox"/> Authority of Partnership         |
| <input type="checkbox"/> Authority of Governmental Agency                             | <input type="checkbox"/> Authority of Limited Partnership |

Submit completed and signed **Authority Form** as **Attachment R**.

**All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.**

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

#### **Certification of Truth, Accuracy, and Completeness**

I, the undersigned  **Responsible Official** /  **Authorized Representative**, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

**Compliance Certification**

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

SIGNATURE  DATE: 03/07/16  
*(Please use blue ink)* *(Please use blue ink)*

35B. Printed name of signee: Jon Putnam		35C. Title: WVO Responsible Care Leader
35D. E-mail: JPutnam@dow.com	36E. Phone: 304-747-1165	36F. FAX: 304-747-3147
36A. Printed name of contact person (if different from above): Jay Fedczak		36B. Title: WVO EH&S Environmental Specialist
36C. E-mail: JPFedczak@dow.com	36D. Phone: 304-747-1354	36E. FAX: 304-747-3147

**PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:**

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Attachment A: Business Certificate               | <input type="checkbox"/> Attachment K: Fugitive Emissions Data Summary Sheet                       |
| <input type="checkbox"/> Attachment B: Map(s)  | <input type="checkbox"/> Attachment L: Emissions Unit Data Sheet(s)                                |
| <input type="checkbox"/> Attachment C: Installation and Start Up Schedule            | <input type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s)                       |
| <input checked="" type="checkbox"/> Attachment D: Regulatory Discussion              | <input checked="" type="checkbox"/> Attachment N: Supporting Emissions Calculations                |
| <input checked="" type="checkbox"/> Attachment E: Plot Plan                          | <input checked="" type="checkbox"/> Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans |
| <input type="checkbox"/> Attachment F: Detailed Process Flow Diagram(s)              | <input checked="" type="checkbox"/> Attachment P: Public Notice                                    |
| <input checked="" type="checkbox"/> Attachment G: Process Description                | <input type="checkbox"/> Attachment Q: Business Confidential Claims                                |
| <input type="checkbox"/> Attachment H: Material Safety Data Sheets (MSDS)            | <input checked="" type="checkbox"/> Attachment R: Authority Forms                                  |
| <input checked="" type="checkbox"/> Attachment I: Emission Units Table ;             | <input checked="" type="checkbox"/> Attachment S: Title V Permit Revision Information              |
| <input checked="" type="checkbox"/> Attachment J: Emission Points Data Summary Sheet | <input checked="" type="checkbox"/> Application Fee  |

*Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.*

**FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:**

- Forward 1 copy of the application to the Title V Permitting Group and:
- For Title V Administrative Amendments:
  - NSR permit writer should notify Title V permit writer of draft permit,
- For Title V Minor Modifications:
  - Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,
  - NSR permit writer should notify Title V permit writer of draft permit.
- For Title V Significant Modifications processed in parallel with NSR Permit revision:
  - NSR permit writer should notify a Title V permit writer of draft permit,
  - Public notice should reference both 45CSR13 and Title V permits,
  - EPA has 45 day review period of a draft permit.

*All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.*

Attachment A  
Business Certificate

5CP  
**2008**

**WEST VIRGINIA  
STATE TAX DEPARTMENT**

**2010**

**BUSINESS REGISTRATION  
CERTIFICATE**

ISSUED TO:  
**UNION CARBIDE CORPORATION  
2030 DOW CENTER  
MIDLAND, MI 48674**

BUSINESS REGISTRATION ACCOUNT NUMBER: **1007-4220**

This certificate is issued for the registration period beginning: **July 1, 2008**

This certificate is valid until: **June 30, 2010**

*This business registration certificate is issued by  
the West Virginia State Tax Commissioner  
in accordance with Chapter 11, Article 12 of the West Virginia Code.*

*The person or organization identified on this certificate is registered  
to conduct business in the State of West Virginia at the location above.*

**This certificate is not transferrable and must be displayed at the location for which issued.**

**ENGAGING IN BUSINESS WITHOUT CONSPICUOUSLY POSTING A WEST VIRGINIA BUSINESS  
REGISTRATION CERTIFICATE IN THE PLACE OF BUSINESS IS A CRIME AND MAY SUBJECT YOU  
TO FINES PER W. VA. CODE § 11-9.**

**TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them.  
CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of  
this certificate displayed at every job site within West Virginia.**

atL007 v.57  
L0397474816

**ATTACHMENT D – Regulatory Discussion**

The current permit, R13-2840A contains limits for hydrochloric acid emissions from a listed control device (Packed Bed Scrubber A42PBS) in condition number 4.1.4. These limits are 0.71 pounds per hour and 3.10 tons per year. This scrubber also has a limit in condition number 4.1.6.1 which establishes a daily average pH of the inlet liquid of at least 7.0. At times, this scrubber must undergo a maintenance process (acid-washing) due to scale-up that occurs. This acid-washing process is recommended by the scrubber manufacturer. During acid-washing, there is potential for the emissions of HCl to exceed the 0.71 pounds per hour limit and the pH of the inlet liquid is acidic for a brief period, with a pH of <2.0. Attachment N shows the maximum, worst-case emissions estimates. UCC requests that the HCl mass emission limit be 37.65 pounds per event during acid-washing of the scrubber and that the pH of the system during these times is not included in the daily average. No other emission limits are affected by this maintenance process. Proposed monitoring of the time involved in the acid-washing process will demonstrate compliance with the worst-case emissions. Proposed language is included in Attachment D-1. The following paragraph(s) provide additional background.

The caustic nature of the system causes calcium and magnesium to deposit onto the equipment. The scaling occurs on all the pipes, walls of the scrubber, pumps, spray nozzles, etc. As scaling starts to build up, the scrubber liquor flow rate goes down. If this scaling is not addressed, the system would start shutting down. Scaling builds up over the course of each month. As a result, the manufacturer has recommended and provided a maintenance procedure to perform acid-washing to remove the scale build-up and to clean the equipment.

During the acid-washing process, the pH of the system must be allowed to go acidic. This is done by running only process vapor and stopping addition of caustic. This process normally takes about 4-5 hours. During acid-washing, the procedure is to manually blow down water from the scrubber so some of the acidity goes to the process sewer. The acidic solution cleans the scaling from the system. Once the process is complete, caustic is reintroduced and the system returns to normal operation within a matter of a few minutes.

**Purpose: Review of Rule Applicability.**

Rule	APPLICABLE (Yes or No)	COMMENTS
WVDAQ Rule 4	Yes	Must prevent objectionable odors.
WVDAQ Rule 7	No	Operation is not a manufacturing process.
WVDAQ Rule 13	Yes	The proposed change does not qualify as a modification because it meets the routine maintenance exemption under 45CSR§13-2.17.f.2. The proposed revisions qualify as a Class II Administrative Update to current permit R13-2840A per 45CSR§13-4.2.b.1.

Union Carbide Corporation – South Charleston Facility  
WVDAQ Regulation 13 Permit Application - Soil Remediation

**ATTACHMENT D – Regulatory Discussion**

Rule	APPLICABLE (Yes or No)	COMMENTS
WVDAQ Rule 16	No	Operations do not include sources that are covered by NSPS.
WVDAQ Rule 17	No	Does not apply because the wet scrubber does not result in fugitive particulate matter emissions.
WVDAQ Rule 19	No	NANSR permitting does not apply because uncontrolled emissions are less than applicability threshold amounts and area is classified as being in attainment with NAAQS.
WVDAQ Rule 22	Yes	Rule 13 application fee applies. Provided with permit application.
WVDAQ Rule 27	No	Per January 21, 2010, email from Steve Pursley of the WVDAQ, Regulation 27 does not apply to air sparging remediation activities (copy attached).
WVDAQ Rule 30	Yes	Application for minor modification to current air operating permit is included in this submission.

40 CFR 64 (CAM)	Yes	The remediation system is subject to CAM requirements as specified in Title V Permit R30-03900003-2012. However, changes to CAM language only involve exclusion of CAM monitoring during acid-washing maintenance activities. Suggested language revision is located in attachment S-1.
WVDAQ Rule 34		
(i) 40 CFR 61, Subpart V: Fugitive emissions of vinyl chloride and benzene	No	The remediation system is not comprised of equipment assembled to produce a volatile hazardous air pollutant (VHAP) covered by this rule or its derivatives as intermediates or final products, or equipment assembled to use a VHAP in the production of a product; as a result, it is not considered a “Process Unit”.
(ii) 40 CFR 61, Subpart FF: Benzene Waste Operations	No	Waste in the form of gases emitted from process streams is exempt from rule provisions. 40 CFR 61.340(c)(1).
(iii) 40 CFR 63, Subpart GGGGG: Site Remediation	No	Exempt. Proposed activities are conducted under RCRA corrective action program. 40 CFR 63.7881(b)(3)

Current Permits R13-2840A and R30-03900003-2012 specify monitoring, recordkeeping, reporting and testing for compliance demonstration.

Union Carbide Corporation – South Charleston Facility  
WVDAQ Regulation 13 Permit Application - Soil Remediation

**ATTACHMENT D – Regulatory Discussion**

WVDAQ Regulation 27 Non-applicability Determination

**From:** Pursley, Steven R [Steven.R.Pursley@wv.gov]  
**Sent:** Thursday, January 21, 2010 11:12 AM  
**To:** Sizemore, Freddie (FA)  
**Subject:** RE: UCC South Charleston Facility - Groundwater Remediation Project

Sorry, Freddie I thought I had already gotten back to you on that. The project would NOT be subject to Rule 27.

Steve

---

**From:** Sizemore, Freddie (FA) [mailto:sizemofa2@dow.com]  
**Sent:** Thursday, January 21, 2010 10:51 AM  
**To:** Pursley, Steven R  
**Subject:** RE: UCC South Charleston Facility - Groundwater Remediation Project

Steve,  
Any new information that you can share regarding R27 applicability?

Freddie  
747-3713

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**From:** Pursley, Steven R [mailto:Steven.R.Pursley@wv.gov]  
**Sent:** Tuesday, December 29, 2009 2:23 PM  
**To:** Sizemore, Freddie (FA)  
**Subject:** RE: UCC South Charleston Facility - Groundwater Remediation Project

Freddie,  
I said I would get back to you this week regarding rule 27 applicability to SVE systems. Unfortunately, the only other examples of SVE permits I can find are for petrochemicals which are specifically exempt from rule 27. So I will need to wait until next week to talk to Bev (she's out this week).

Steve

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Union Carbide Corporation – South Charleston Facility  
WVDAQ Regulation 13 Permit Application - Soil Remediation

**ATTACHMENT D – Regulatory Discussion**

**From:** Sizemore, Freddie (FA) [mailto:sizemofa2@dow.com]  
**Sent:** Wednesday, December 23, 2009 10:14 AM  
**To:** Pontiveros, Lucia S  
**Cc:** Pursley, Steven R; Amos, Joe (JA)  
**Subject:** UCC South Charleston Facility - Groundwater Remediation Project

Hi Lucy,

Joe and I met with Steve Pursley yesterday to discuss Regulation 13 permitting of a planned project to remove contaminants from groundwater at the South Charleston Facility. Basically the project involves sparging of groundwater and treating extracted vapor by air pollution control equipment. A Regulation 25 permit does not seem to be required for the following reasons. Please let me know if you concur.

DAQ Rule 25 and West Virginia Division of Water and Waste Management RCRA permits

- a.. No hazardous wastes are being generated because soil and groundwater are being addressed via in-situ air sparging and solvent vapor extraction (SVE).
- b.. Only waste stream generated will be unconfined soil vapor from SVE; which is not regulated by RCRA.
- c.. RCRA TSD permit is not required.

Thanks for the help. If additional information is needed let me know.

Freddie A. Sizemore  
UCC Regulatory Affairs Specialist  
304.747.3713

## Attachment D-1 Proposed R13-2840B Section 4 Language

### 4.0. Source-Specific Requirements

#### 4.1. Limitations and Standards

- 4.1.1. All emissions of regulated pollutants from the Chlorohydrin (Area 42) Vapor Extractive System (A42VE) and Chlorobenzene Area Vapor Extractive System (CLBVE) shall be routed to the Thermal Oxidizer (A42INC).
- 4.1.2. All emissions of regulated pollutants from the Thermal Oxidizer shall be routed to the Packed Bed Scrubber (A42PBS).
- 4.1.3. Criteria pollutant emissions vented from the Packed Bed Scrubber A42PBS shall not exceed the following:

	lb/hr	tpy
NO <sub>x</sub>	0.10	0.44
CO	0.44	1.92
SO <sub>2</sub>	0.01	0.02
PM	0.01	0.01
VOC	3.46	15.07

- 4.1.4. With the exception of HCl emissions during periods of scrubber maintenance (acid-washing (see 4.1.9 and 4.1.10)), Hazardous Air Pollutant emissions vented from the Packed Bed Scrubber A42PBS shall not exceed the following:

	lb/hr	Tpy
1,1,2-Trichloroethane	0.20	0.84
Vinylidene Chloride	0.15	0.65
Ethylene Dichloride	1.53	6.67
Trichloroethene	0.40	1.70
HCl	0.71	3.10
Other Organic HAPs	0.46	1.61
<b>Total HAPs</b>	<b>3.44</b>	<b>14.56</b>

- 4.1.5. The regenerative thermal oxidizer shall be designed, operated and maintained so as to reduce emissions of VOCs by at least 98% or to less than 3.46 pounds per hour.
- 4.1.5.1. The thermal oxidizer shall be operated with a firebox temperature of at least 1400F at all times when the contaminated vent gas is being combusted. Compliance with this

requirement shall be based on a daily average.

4.1.6 The packed bed scrubber shall be designed, operated and maintained so as to reduce emissions of HCl by at least 99.5% or to no more than 0.71 pounds per hour except when scrubber maintenance (acid-washing) is being performed.

4.1.6.1 The packed bed scrubber shall be operated with a daily average pH of the inlet liquid of at least 7.0 when the contaminated vent gas is being combusted except that during periods of scrubber maintenance (acid-washing), the pH of the inlet liquid shall not be included in this daily average.

4.1.7 Visible emissions from the thermal oxidizer (TO-1) shall not exceed twenty percent (20%) opacity except that an opacity level of up to forty percent (40%) is permitted during startup periods during the first eight (8) minutes of operation of the unit.  
[45CSR§6-4.3.] & [45CSR§6-4.4.]

4.1.8. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.  
[45CSR§13-5.11.]

4.1.9. During scrubber maintenance (acid-washing), emissions of hydrochloric acid (HCl) shall not exceed 37.65 pounds per event and 0.23 tons per year.

4.1.10. Scrubber maintenance (acid-washing) shall be limited to six (6) hours per month.

## 4.2. Testing Requirements

4.2.1. The permittee shall conduct, or have conducted, testing to determine VOC emission rates to the atmosphere according to the schedule in the following table. The initial test shall be conducted within 6 months of commencement of authorized activity. Said testing may be done using a photo ionization detector or other suitable detector or a sample may be collected and sent to a laboratory for analysis. At the time of the aforementioned testing exhaust flow rates shall also be determined in order to calculate hourly VOC emissions.

**Table 4.2.1 - Test Requirements:**

Test Results	Testing Frequency
< 50% of permit limit	Once per 12 months
≥ 50% of permit limit	Once per 6 months

4.2.2 At least monthly visual particulate emissions checks of the packed bed scrubber exhaust stack will be conducted. These checks shall be conducted during periods of operation and for a sufficient time interval to determine if the unit has visible emissions using the procedures outlined in 40 CFR 60, Appendix A, Method 22. If no visible emissions are noted during four consecutive monthly observation periods, visual emissions checks will be conducted quarterly commencing with the next calendar quarter. If no visible emissions are noted during four consecutive calendar quarters, visual checks may be conducted semiannually. If sources of visible emissions are

identified during the survey or at any other time, the permittee shall conduct a 40 CFR 60, Appendix A, Method 9 evaluation within 24 hours and restart monthly visual emission checks. A Method 9 evaluation shall not be required if the visible emission condition is corrected within 24 hours and the incinerator is operated at normal operating conditions. A record of each visible emission check required above shall be maintained on site. Said record shall include but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action (s), if any, was/were taken, and the name of the observer.

- 4.2.3 At least once per day the pH of the scrubber liquid shall be measured except during periods of scrubber maintenance (acid-washing).

### 4.3. Monitoring and Recordkeeping Requirements

- 4.3.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:
- a. The date, place as defined in this permit and time of sampling or measurements;
  - b. The date(s) analyses were performed;
  - c. The company or entity that performed the analyses;
  - d. The analytical techniques or methods used;
  - e. The results of the analyses; and
  - f. The operating conditions existing at the time of sampling or measurement.
- 4.3.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
- 4.3.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
- a. The equipment involved.
  - b. Steps taken to minimize emissions during the event.
  - c. The duration of the event.
  - d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

- 4.3.4. The permittee shall maintain the following records relating to the RTO.
  - 4.3.4.1 Daily average firebox temperature. Said average shall be determined by monitoring the temperature every 15 minutes to determine an hourly average and then averaging the days 24 hourly averages.
  - 4.3.4.2 Completed maintenance and calibrations.
  - 4.3.4.3 Copy of the testing results required by condition 4.2.1 of this permit.
  - 4.3.4.4 Copy of the site specific monitoring plan. The plan may refer to the manufacturers operation and maintenance manual or other documents for procedures covering operation, maintenance, calibrations and inspections.
  - 4.3.4.5 Records of monitoring equipment downtime and corrective actions taken.
- 4.3.5 The permittee shall maintain the following records relating to the packed bed scrubber.
  - 4.3.5.1 Daily average liquid flow rate of the scrubber. Said average shall be determined by monitoring the flow rate every 15 minutes to determine an hourly average and then averaging the day's 24 hourly averages.
  - 4.3.5.2 Daily pH of the scrubber liquid as measured in accordance with 4.2.3.
  - 4.3.5.3 Completed maintenance and calibrations.
  - 4.3.5.4 Copy of the site specific monitoring plan. The plan may refer to the manufacturers' operation and maintenance manual or other documents for procedures covering operation, maintenance, calibrations and inspections.
  - 4.3.5.5 Records of monitoring equipment downtime and corrective actions taken.
- 4.3.6. To demonstrate compliance with 4.1.9 and 4.1.10, the permittee shall record the date and duration of scrubber maintenance (acid-washing) activities.

#### **4.4. Reporting Requirements**

- 4.4.1. Semiannual monitoring reports will be submitted on or before September 15 for the reporting period of January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from the permit requirements will be clearly identified in such reports.

Attachment E

Plot Plan



# Attachment G

## Process Description

During the acid-washing process, the pH of the system must be allowed to go acidic. This is done by running only process vapor and stopping addition of caustic. This process normally takes about 4-5 hours. During acid-washing, the procedure is to manually blow down water from the scrubber so some of the acidity goes to the process sewer. The acidic solution cleans the scaling from the system. Once the process is complete, caustic is reintroduced and the system returns to normal operation within a matter of a few minutes.



**Attachment J**  
**EMISSION POINTS DATA SUMMARY SHEET**  
**(During Normal Operation)**

Table 1: Emissions Data

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type <sup>1</sup>	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS <sup>3</sup> (Speciate VOCs & HAPs)	Maximum Potential Uncontrolled Emissions <sup>4</sup>		Maximum Potential Controlled Emissions <sup>5</sup>		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used <sup>6</sup>	Emission Concentration <sup>7</sup> (ppmv or mg/m <sup>3</sup> )
		ID No.	Source	ID No.	Device Type	Short Term <sup>2</sup>	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
SVE 1	Stack	A42 VE & CL BVE	Process vent Gas	A42IN C	Incinerator			TCE	19.7	85	0.394	1.7			--
		A42I NC	Incinerator	A42PB S	Scrubber	C	8,760	HCL Other Organic HAPs Total HAPs Total VOCs	NA** 20 185 165	NA 70 640 727.5	0.71 0.4 3.7 3.3	3.1 1.4 12.8 14.55			-- -- -- -- -- -- --

Other organic HAPs are the only pollutants whose emissions will change as a result of the modification

\*HAPs – See Attachment N for detailed listing. HAP category is organic compounds – does not include hydrogen chloride.

\*\*HCL produced in combustion of chlorinated compounds- the compound is not present in the uncontrolled soil vapor stream.

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

<sup>1</sup> Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

<sup>2</sup> Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (i.e., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).

<sup>3</sup> List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS<sub>2</sub>, VOCs, H<sub>2</sub>S, Inorganics, Lead, Organics, O<sub>3</sub>, NO, NO<sub>2</sub>, SO<sub>2</sub>, SO<sub>3</sub>, all applicable Greenhouse Gases (including CO<sub>2</sub> and methane), etc. DO NOT LIST H<sub>2</sub>, H<sub>2</sub>O, N<sub>2</sub>, O<sub>2</sub>, and Noble Gases.

<sup>4</sup> Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

<sup>5</sup> Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

<sup>6</sup> Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

<sup>7</sup> Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m<sup>3</sup>) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO<sub>2</sub>, use units of ppmv (See 45CSR10).

**Attachment J**  
**EMISSION POINTS DATA SUMMARY SHEET**  
**(During Acid-Washing)**

Table 1: Emissions Data

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type <sup>1</sup>	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS <sup>3</sup> (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions <sup>4</sup>		Maximum Potential Controlled Emissions <sup>5</sup>		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used <sup>6</sup>	Emission Concentration <sup>7</sup> (ppmv or mg/m <sup>4</sup> )
		ID No.	Source	ID No.	Device Type	Short Term <sup>2</sup>	Max (hr/yr)		lb/event	ton/yr	lb/hr	ton/yr			
SVE 1	Stack	A42PBS	Scrubber			6 hours/month	12	HCL	37.65*	0.23	N/A	N/A	Gas	EE	--

\*HCL produced in combustion of chlorinated compounds- the compound is not present in the uncontrolled soil vapor stream.

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

- Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.
- Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).
- List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS<sub>2</sub>, VOCs, H<sub>2</sub>S, Inorganics, Lead, Organics, O<sub>3</sub>, NO, NO<sub>2</sub>, SO<sub>2</sub>, SO<sub>3</sub>, all applicable Greenhouse Gases (including CO<sub>2</sub> and methane), etc. DO NOT LIST H<sub>2</sub>, H<sub>2</sub>O, N<sub>2</sub>, O<sub>2</sub>, and Noble Gases.
- Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
- Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
- Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).
- Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m<sup>3</sup>) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO<sub>2</sub>, use units of ppmv (See 45CSR10).



# ATTACHMENT N

## Emissions Calculations

**SITE:** Chlorohydrin Remediation Area

**FACILITY:** UCC South Charleston Facility, South Charleston, West Virginia

### Potential HCl Emissions During Acid Washing Maintenance Activity

(1) Total HCl created during acid washing (lb/hr)	6.95
Duration of acid wash activity (up to 6 hours)	6
Total HCL created over the 6-hr period (lb)	41.7
(2) Total HCL in Scrubber System and from blow-down (lb)	4.1
<b>Total potential emissions (lb)</b>	<b>37.65</b>
<b>(3) Total potential emissions (TPY)</b>	<b>0.23</b>

- (1) Assumes maximum contaminant concentrations and design maximum flowrate
- (2) Amount of HCl manually blown down from the scrubber system
- (3) Assumes 6 hours/month, once/month acid washing

**ATTACHMENT O**  
**Monitoring/Recordkeeping/Reporting/Testing Plans**

**Proposed Demonstrations of Compliance**

There are no changes being requested in this permit application to the day-to-day monitoring and recordkeeping used to demonstrate compliance with Permit R13-2840A and R30-03900003-2012 during normal operations. UCC proposes monitoring, recording, and keeping records of date and duration of monthly acid-washing events to demonstrate compliance with the maximum uncontrolled emissions during these events.

# Attachment P

## Legal Ad

Note: Original affidavit of publication will be submitted immediately upon receipt.

## **AIR QUALITY PERMIT NOTICE**

### **Notice of Application**

Notice is given that Union Carbide Corporation has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Class II Administrative Update for a site remediation facility located at 437 MacCorkle Avenue SW, South Charleston, in Kanawha County, West Virginia. The latitude and longitude coordinates are: 38.36852, -81.68654

The applicant estimates the increased potential to discharge the following Regulated Air Pollutants will be: Hydrochloric Acid – 0.23 tons per year.

This facility is currently operating. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57<sup>th</sup> Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.

Dated this the 14th day of March, 2016.

By: Union Carbide Corporation  
Jon Putnam  
WVO Responsible Care Leader  
P.O. Box 8361  
South Charleston, WV 25303

# Attachment R

## Delegation of Authority



---

Union Carbide Corporation  
A Subsidiary of The Dow Chemical Company  
P.O. Box 8004  
437 MacCorkle Avenue, SW  
South Charleston, WV 25303  
USA

**AUTHORITY OF CORPORATION**

TO: The West Virginia Department of Environmental Protection,  
Division of Air Quality

DATE: March 1, 2016

ATTN: Mr. William F. Durham, Director

Corporation's Federal Employer I.D. Number 13-1421730

The undersigned hereby files with the West Virginia Department of Environmental Protection, Division of Air Quality, a permit application and hereby certifies that the said name is a trade name which is used in the conduct of an incorporated business.

Further, the corporation entity certifies as follows:

- (1) Jon W. Putnam is the authorized representative and in that capacity may represent the interest of the corporation and may obligate and legally bind the corporation.
- (2) The corporation is authorized to do business in the State of West Virginia.
- (3) If the corporation changes its authorized representative, the corporation shall notify the Director of the West Virginia Department of Environmental Protection, Division of Air Quality, immediately upon such change.

Jason P. Lankford  
Vice President  
Union Carbide Corporation  
A Subsidiary of The Dow Chemical Company

---



## Attachment S

### Title V Permit Revision Information

<b>1. New Applicable Requirements Summary</b>	
Mark all applicable requirements associated with the changes involved with this permit revision:	
<input type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR34)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input type="checkbox"/> Section 111 NSPS (Subpart(s) _____)	<input type="checkbox"/> Section 112(d) MACT standards (Subpart(s) _____)
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64) <sup>(1)</sup>
<input type="checkbox"/> NO <sub>x</sub> Budget Trading Program Non-EGUs (45CSR1)	<input type="checkbox"/> NO <sub>x</sub> Budget Trading Program EGUs (45CSR26)
<p><sup>(1)</sup> If this box is checked, please include <b>Compliance Assurance Monitoring (CAM) Form(s)</b> for each Pollutants Specific Emission Unit (PSEU) (See Attachment H to Title V Application). If this box is not checked, please explain why <b>Compliance Assurance Monitoring</b> is not applicable:</p> <p style="padding-left: 40px;">The remediation system is subject to CAM requirements as specified in Title V Permit R30-03900003-2012. This minor modification is to provide language that excludes CAM from applying during periods of acid-washing maintenance operations. During acid-washing, the scrubber subject to CAM does not act as a control device.</p>	
<b>2. Non Applicability Determinations</b>	
<p>List all requirements, which the source has determined not applicable to this permit revision and for which a permit shield is requested. The listing shall also include the rule citation and a rationale for the determination.</p> <p>Not applicable</p>	
<input type="checkbox"/> <b>Permit Shield Requested</b> <i>(not applicable to Minor Modifications)</i>	
<p><i>All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.</i></p>	

**3. Suggested Title V Draft Permit Language**

Are there any changes involved with this Title V Permit revision outside of the scope of the NSR Permit revision?  Yes  No If Yes, describe the changes below.

Also, please provide **Suggested Title V Draft Permit language** for the proposed Title V Permit revision (including all applicable requirements associated with the permit revision and any associated monitoring /recordkeeping/ reporting requirements), OR attach a marked up pages of current Title V Permit. Please include appropriate citations (Permit or Consent Order number, condition number and/or rule citation (e.g. 45CSR§7-4.1)) for those requirements being added / revised.

See revised permit language appended hereto (Attachment S-1).

**4. Active NSR Permits/Permit Determinations/Consent Orders Associated With This Permit Revision**

Permit or Consent Order Number	Date of Issuance	Permit/Consent Order Condition Number
R13-2840B	Pending	
	/ /	
	/ /	

**5. Inactive NSR Permits/Obsolete Permit or Consent Orders Conditions Associated With This Revision**

Permit or Consent Order Number	Date of Issuance	Permit/Consent Order Condition Number
Not Applicable	MM/DD/YYYY	
	/ /	
	/ /	

**6. Change in Potential Emissions**

Pollutant	Change in Potential Emissions (+ or -), TPY
HCL	0.23 TPY

*All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.*

**7. Certification For Use Of Minor Modification Procedures (Required Only for Minor Modification Requests)**

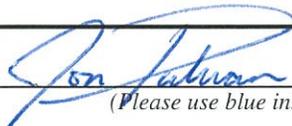
*Note: This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete. The criteria for allowing the use of Minor Modification Procedures are as follows:*

- i. Proposed changes do not violate any applicable requirement;
- ii. Proposed changes do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
- iii. Proposed changes do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient air quality impacts, or a visibility increment analysis;
- iv. Proposed changes do not seek to establish or change a permit term or condition for which there is no underlying applicable requirement and which permit or condition has been used to avoid an applicable requirement to which the source would otherwise be subject (synthetic minor). Such terms and conditions include, but are not limited to a federally enforceable emissions cap used to avoid classification as a modification under any provision of Title I or any alternative emissions limit approved pursuant to regulations promulgated under § 112(j)(5) of the Clean Air Act;
- v. Proposed changes do not involve preconstruction review under Title I of the Clean Air Act or 45CSR14 and 45CSR19;
- vi. Proposed changes are not required under any rule of the Director to be processed as a significant modification;

Notwithstanding subparagraph 45CSR§30-6.5.a.1.A. (items i through vi above), minor permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in rules of the Director which are approved by the U.S. EPA as a part of the State Implementation Plan under the Clean Air Act, or which may be otherwise provided for in the Title V operating permit issued under 45CSR30.

**Pursuant to 45CSR§30-6.5.a.2.C., the proposed modification contained herein meets the criteria for use of Minor permit modification procedures as set forth in Section 45CSR§30-6.5.a.1.A. The use of Minor permit modification procedures are hereby requested for processing of this application.**

(Signed):

  
 \_\_\_\_\_  
 (Please use blue ink)

Date:

03 / 07 / 16  
 \_\_\_\_\_  
 (Please use blue ink)

Named (typed):

Jon Putnam

Title:

WVO Responsible Care Leader

**Note: Please check if the following included (if applicable):**

- Compliance Assurance Monitoring Form(s)
- Suggested Title V Draft Permit Language (Attachment S-1)

*All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.*

**Attachment S-1**  
**Suggested Title V Draft Permit Language**

Revise Section 11 of the Title V permit R30-03900003-2012 to match Class II Administrative Update R13-2840B.

Revise Section 14 of the Title V permit R30-03900003-2012 as suggested below.

**14.0 Source-Specific 40 C.F.R. 64 (CAM) Requirements for [Groundwater/Soil Remediation Process, Emission Point ID (SVE1)]**

**14.2. Monitoring Requirements**

14.2.1. The permittee shall implement a CAM program for the thermal oxidizer (A42INC) and the packed bed scrubber (A42PBS) based on the following performance indicators:

- a. The thermal oxidizer shall be operated in a manner to maintain a daily average combustion temperature of at least 1,400 degrees F. The permittee shall continuously monitor the combustion zone temperature by using a thermocouple or equivalent temperature monitoring device with a minimum accuracy of plus or minus 2%.
- b. The packed bed scrubber shall be operated in a manner to ensure the daily pH monitoring value of the recirculated scrubber liquor is maintained to a level of at least 7.0, except that during acid-washing maintenance activities, the pH of the system shall not be included in this daily average requirement. Additionally, the scrubber shall maintain a daily average liquor flow to the packed bed of at least 30 gpm. Liquid flow rate shall be monitored continuously, which shall mean at least once every 15 minutes. The accuracy of the pH measuring device shall not exceed plus or minus 0.6 units and the accuracy of the flow meter shall not exceed plus or minus 0.4%.

[40 C.F.R. 64, 45CSR§30-5.1.c]

**14.3. Testing Requirements**

14.3.2. In order to verify compliance with the HCl limitations of ~~this permit 11.1.4~~, as well as establish and verify adequate scrubber flow and pH are being maintained, the operator shall conduct an initial hydrogen halide test in accordance with 40 C.F.R. 60, Appendix A, Method 26A. The testing may be conducted to correlate with VOC testing required by 11.2.1. Although this CAM testing requirement may correlate with the initial or subsequent testing defined by the overlapping minor source NSR permit, in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval of the permit. The test results shall be reported to DAQ in accordance with Condition 3.3.1.d. unless otherwise approved by the Director.  
[40 C.F.R. §64.4(e), 45CSR§30-5.1.c.]