

Fact Sheet



For Final Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Minor Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on June 10, 2014.

Permit Number: **R30-03900011-2014**

Application Received: **October 19, 2015**

Plant Identification Number: **03-54-039-00011**

Permittee: **Clearon Corporation**

Facility Name: **South Charleston Chlorinated Dry Bleach Plant**

Mailing Address: **95 MacCorkle Avenue, South Charleston, WV 25303**

Permit Action Number: *MM01* Revised: *May 17, 2016*

Physical Location:	South Charleston, Kanawha County, West Virginia
UTM Coordinates:	438.4 km Easting • 4,246.6 km Northing • Zone 17
Directions:	Exit 56 (Montrose Drive) on I-64. Turn right and go to the bottom of the hill and turn left at the light onto MacCorkle Avenue (Route 60). Go to 3 rd stop light and turn right. Turn left at first driveway.

Facility Description

Clearon's primary products are purified cyanuric acid and chlorinated isocyanurates also known as CDB. The facility operates on a year-round basis, 24 hours per day, and 365 days per year.

Cyanuric acid is produced from the pyrolysis of urea. The cyanuric acid is used as the feed stock to produce various types of CDB's at the South Charleston Plant. CDB's are produced by chlorinating the cyanuric acid. Cyanuric acid is also sold to other manufacturers for the production of their chlorinated dry bleaches or as CDB stabilizers.

Cyanuric acid and chlorinated dry bleaches are used in production of swimming pool treatment chemicals, cleansers, dishwashing detergents and various other products whose primary functions are cleaning, disinfecting, and sanitizing.

Proposed Modification

The sulfuric acid tank (T-1003) serves as a backup tank to the primary sulfuric acid tank (T-1007). The existing tank T-1003 has a capacity of 3,200 gallons. The permittee has proposed to replace T-1003 with a 3,000 gallon tank. The current Title V permit specifies 20,000-gallon capacity for T-1003. The application cover letter explained that T-1003 has always served as a backup tank to T-1007 and is only used once annually to store sulfuric acid when T-1007 is down for servicing and inspection. T-1007 cannot be fully emptied by the process and requires a smaller storage tank to hold the remaining sulfuric acid. T-1003 is permitted with the same annual throughput as T-1007 to provide operational flexibility in the event T-1007 has to be quickly removed from service; however, the operational design of T-1003 has always been a backup tank to T-1007. At no time are T-1007 and T-1003 simultaneously utilized to feed the process at the facility.

Emissions Summary

There are no changes in emissions associated with proposed changes.

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 407.9 TPY of NO_x. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Clearon Corporation is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR6 45CSR7 45CSR13 45CSR30	Control of air pollution from combustion of refuse PM from manufacturing processes and associated operation Permits for construction/modification Operating permit requirement.
State Only:	None	

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-2050G	March 9, 2016	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

- I. **45CSR6 – Control of Air Pollution from Combustion of Refuse.** The underlying NSR permit revision added applicable requirements from this rule for the Ammonia Incinerator F-1804. The incinerator is subject to the PM mass rate limitation and 20% opacity limit in 45CSR§§6-4.1. and 4.3., respectively. Refer to permit conditions 6.1.1., 6.1.2., and 6.1.6.d.

- II. **45CSR7 – To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations.** The replacement Tank T-1003 is subject to the mineral acid standard because the vessel emits sulfuric acid. According to 45CSR§7-4.2. and Table 45-7B, no vent is allowed to release sulfuric acid mist in concentrations greater than 35 mg/m³ (8.6 ppmv), which is in modified condition 7.1.3. (Discussed under R13-2050G, below). For other revisions related to 45CSR7 and that have been permitted in underlying permit R13-2050G, the following conditions also have been modified:
 - a. Permit Condition 5.1.1. – This condition has been stricken and reserved because the limitations have been relocated within the underlying NSR permit R13-2050G, which has been discussed below.
 - b. Permit Condition 7.1.2. – The sulfuric acid emission limits for emission point D-222 have been written and the citation of authority revised to include Table 45-7B of 45CSR7.

- III. **45CSR13, Permit No. R13-2050G.** This permit was issued for the replacement of tank T-1003. The substantial revisions associated with this underlying permit are:
 - a. The installation date and design capacity for tank T-1003 has been revised in Title V subsection 1.1.
 - b. The permit format has been changed; consequently, multiple citations of authority in the operating permit have been revised.
 - c. Several emission limits that have been in the underlying permit R13-2050F Appendix A have been included in R13-2050G requirements 4.1.1., 4.1.10., and 4.1.12.

The table below describes the revisions in the underlying permit requirements and how these are incorporated into the proposed operating permit modification.

R13-2050F	R13-2050G	Title V	Discussion
Limitations and Standards			
A.1.	None	5.1.1.	The former condition A.1. specified limits of 0.221 lb/hr and 0.376 tpy from emission point ST-176 which were in Appendix A of the underlying permit. However, Appendix A and these particular limits are not included in revised permit R13-2050G; therefore, the contents of this operating permit condition are stricken and the condition number is reserved (in order to maintain current condition numbers).

R13-2050F	R13-2050G	Title V	Discussion
A.1.	4.1.1.	6.1.6. 6.1.2. 6.1.1.	<p>The one-page table that was from Appendix A of the underlying permit has been stricken from the operating permit and replaced with the language in R13-2050G.</p> <p>The citation of authority has been revised for condition 6.1.6.</p> <p>The underlying permit requirement specifies applicability to “the venting arrangements, set forth in Table 1.0 of this permit.” The venting arrangements in Table 1.0 of the underlying permit can be similarly referenced in the operating permit by simply retaining the parenthetical reference to emission point ST-1806 following the citation of authority. The reference to ST-1802 after the citation of authority has been stricken since this requirement is for all units controlled by incinerator F-1804, and emission point ST-1802 is for the F-1801 D Kiln Zones A, B, and C, which are not associated with F-1804.</p> <p>The PM limit in the streamlining note in condition 6.1.2. has been revised to reflect the revised limit that dropped the thousandths place in the limit.</p> <p>Underlying requirement 4.1.1.g. has been cited with existing Title V condition 6.1.1. since the 20% opacity limit from 45CSR§6-4.3. applicable to ST-1806 is already in the operating permit.</p>
A.2.	4.1.2.	6.1.7.	The requirement is revised to reflect the underlying permit and the citation of authority has been revised.
A.3.	4.1.3.	6.1.8.	The word “of” has been added between “pounds” and “urea” and the citation of authority has been revised.
A.4.	4.1.4.	6.1.9.	The citation of authority has been revised.
A.5.	4.1.5.	6.1.10.	The citation of authority has been revised.
A.6.	4.1.6.	6.1.11.	The requirement has been revised to reflect the underlying permit and the citation of authority has been revised.
A.7.	4.1.7.	6.1.12.	The citation of authority has been revised.
A.8.	4.1.8.	5.1.2.	The requirement has been revised to reflect the underlying permit and the citation of authority has been revised.
A.9.	4.1.9. and 4.1.9.a.	5.1.3.	The requirement has been revised to reflect the underlying permit and the citation of authority has been revised.
A.16.	4.1.9. and 4.1.9.b.	7.1.5.	The requirement has been revised to reflect the underlying permit and the citation of authority has been revised.
A.10.	4.1.10.	5.1.4.	The requirement has been revised to reflect the underlying permit and the citation of authority has been revised.
A.11.	4.1.11.	5.1.5.	The citation of authority has been revised.

R13-2050F	R13-2050G	Title V	Discussion
A.1.	Combined in 4.1.12.	7.1.1.	The former condition A.1. specified limits of 0.42 lb/hr and 1.8 tpy from emission point D-222 which were in Appendix A of the underlying permit. However, Appendix A has been eliminated from the underlying permit, but these particular limits are in requirement 4.1.12. of permit R13-2050G. Since the underlying permit combined these hourly and annual limits with the concentration limit in condition 7.1.2., this condition 7.1.1. has been stricken and reserved.
A.12.	4.1.12.	7.1.2.	The revised underlying permit combined the hourly and annual sulfuric acid limits (A.1.) with the concentration limit (A.12.). The mass limits have been added to condition 7.1.2. and the citation of authority has been revised.
A.13.	4.1.13.	7.1.3.	The requirement is revised to reflect the underlying permit and the citation of authority has been revised. Since the requirement specifically refers to both tanks T-1003 and T-1007, the reference to them after each citation of authority has been stricken and the second citation of 45CSR§7-4.2. for T-1003 is no longer necessary.
A.15.	4.1.14.	11.1.1.	The pounds per year limits have been stricken and the third footnote has been revised in order to reflect the underlying permit. The citation of authority has been revised.
None	4.1.15.	3.1.11.	This requirement applies only to those control devices in section 1.0 of R13-2050G; therefore, these particular control devices have been specified within parentheses in the operating permit condition so that the requirement will not be incorrectly applied to all control devices in Section 1.0 of the Title V permit.
Monitoring			
B.1.	4.2.1	5.2.3. 5.4.2. 5.4.3. 6.4.1. 7.4.4.	<p>This underlying requirement has been cited for several operating permit conditions because it contains requirements applicable to sources in three different sections of the permit.</p> <p>Condition 5.2.3. specifies the monitoring frequency of the static pressure drops and maximum air flow rates of the baghouses. Underlying requirement 4.2.1. requires records of “air pollution control device parameters”. Therefore, the current language of condition 5.4.3. continues to contain the requirements in underlying permit requirement 4.2.1. and no change to the condition language is necessary. The citation of authority has been revised.</p> <p>Condition 5.4.2. applies to the raw material urea, and specifies monthly records of the daily throughput of raw material unloaded, and that compliance with the annual throughput limit is on a 12-month rolling total. Therefore, the current language of condition 5.4.2. continues to contain the requirements in underlying permit requirement 4.2.1. and the only change to the condition is to delete the word “prilled”. The citation of authority has been revised.</p>

R13-2050F	R13-2050G	Title V	Discussion
			<p>Condition 5.4.3. applies to the records of the static pressure drops and maximum air flow rates of the baghouses. Underlying requirement 4.2.1. requires records of “air pollution control device parameters”. Therefore, the current language of condition 5.4.3. continues to contain the requirements in underlying permit requirement 4.2.1. and no change to the condition language is necessary. The citation of authority has been revised.</p> <p>Condition 6.4.1. applies to the records of both material feed rates and control device parameters. Therefore, the current language of condition 6.4.1. continues to contain the requirements in underlying permit requirement 4.2.1. and no change to the condition language is necessary. The citation of authority has been revised.</p> <p>Condition 7.4.4. applies to the records of material feed rates. Therefore, the current language of condition 7.4.4. continues to contain the requirements in underlying permit requirement 4.2.1. with the exception that the new requirement does not refer to Table 4 of Appendix B. The citation of authority has been revised.</p>
B.2.	4.2.2.	11.4.1	<p>The language “fuel usage” is no longer in the underlying permit requirement; therefore, it has been stricken in the operating permit. Other language in the condition has been revised to reflect the underlying permit requirement. The citation of authority has been revised.</p>
B.3.	None	None	<p>This testing requirement has been fulfilled and was not included in the underlying permit revision or the current operating permit; therefore, no permit condition is warranted.</p>
B.4.	None	None	<p>This 45CSR4 requirement for no objectionable odors was not included in the underlying permit revision or the current operating permit; therefore, no permit condition is warranted. Current permit condition 3.1.4. sets forth the applicable 45CSR4 requirements.</p>
B.5.	None	5.1.6.	<p>The underlying permit revision no longer contains a generalized 45CSR7 requirement as in B.5. However, the underlying permit modification did not affect Tanks T-151 and T-191 that vent to emission point ID ST-176 (F-176). Furthermore, Tanks T-151 and T-191 meet the definition of a “manufacturing process” in 45CSR§7-2.20. Therefore, the applicable 20% opacity limitation from 45CSR§7-3.1. will remain in the operating permit condition and the citation of the underlying permit will be stricken.</p>
B.5.	None	7.1.4.	<p>The underlying permit revision no longer contains an all-inclusive 45CSR7 requirement as in former requirement B.5. The twenty percent opacity standard in this operating permit condition is for smoke and/or particulate matter. The citation of authority for this operating permit condition has been revised.</p>

R13-2050F	R13-2050G	Title V	Discussion
B.6.	None	None	B.6. has been stricken from the citation of authority in condition 3.2.1.
Recordkeeping			
None	4.4.1.	3.4.1.	This requirement is already included in the operating permit as a “boilerplate” condition. When included in an underlying permit, this requirement is typically cited for the operating permit condition and the source is given after the citation to specify applicability. The control devices permitted in R13-2050G have been specified following the citation of authority in permit condition 3.4.1.
None	4.4.2.	3.4.6.	This requirement applies to four control devices in three different sections of the operating permit. Rather than writing this condition in each permit section, it has been written in the facility-wide section 3.0 and the affected control devices have been listed in parentheses within the permit condition.
None	4.4.3.	3.4.7.	Same rationale as for operating permit condition 3.4.6.
None	4.4.4.	7.4.5.	The requirement has been written in the operating permit. Because this requirement has been added, redundant existing condition 7.4.2. has been stricken and reserved.

Appendix B that was in R13-2050F was removed from the underlying permit revision. Therefore, Appendix B and all references and citations of it have been removed from the operating permit, which are in conditions 5.2.3., 5.4.2., 5.4.3., 6.4.1., and 7.4.4. Since current Appendix B has been stricken, current Appendix C has been changed to Appendix B. References to Appendix C have been changed in permit conditions 11.1.19., 11.2.1., 11.3.6., 11.4.7., and 11.5.3.

IV. Miscellaneous Changes

- a. Based upon the permittee’s comments on the pre-proposed permit, the following changes have been made to the emission units table (permit subsection 1.1.) in the operating permit:
 - i. The installation date was changed from 1962 to 2013 to account for the replacement of the Reactor Tank T-403.
 - ii. The CDB-56 Process conveyor designated as emission unit ID C-335 has been corrected to be C-735.
 - iii. Under Crude Cyanuric Acid Production, for emission unit F-1801 process emissions vented through emission point ST-1806, the list of included equipment has been updated.
 - iv. Footnotes have been added at the end of the table and appropriate asterisk markings added in the table to reflect the underlying NSR permit revision.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

None.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: Not Applicable for minor modifications.

Ending Date: N/A

Point of Contact

All written comments should be addressed to the following individual and office:

Denton B. McDerment, PE
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1221 • Fax: 304/926-0478
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Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

No comments were received from U.S. EPA regarding the proposed permit.