

Permit Writer	Edward Andrews
Email Address	Edward.s.andrews@wv.gov
Company Name	Clearon Corporation
Company ID	039-00011
Permit Number	R13-2050G
Facility Name	South Charleston Chlorinated Dry Bleach Plant
County	Kanawha
Newspaper	Charleston Daily Mail
Company Contact & Email	Amanda.Marcks@Icl-Group.com
Consultant Email Address	None
Regional Office	N/A

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Consultant Email Address	None
Regional Office	N/A

INTERNAL PERMITTING DOCUMENT TRACKING MANIFEST

Company Name Clearon - SC.

Permitting Action Number R13-20506 Total Days 36 DAQ Days 12

Permitting Action:

- | | | |
|---|------------------------------------|---|
| <input type="radio"/> Permit Determination | <input type="radio"/> Temporary | <input checked="" type="radio"/> Modification |
| <input type="radio"/> General Permit | <input type="radio"/> Relocation | <input type="radio"/> PSD (Rule 14) |
| <input type="radio"/> Administrative Update | <input type="radio"/> Construction | <input type="radio"/> NNSR (Rule 19) |

Documents Attached:

- | | |
|--|--|
| <input checked="" type="radio"/> Engineering Evaluation/Memo
<input checked="" type="radio"/> Draft Permit
<input checked="" type="radio"/> Notice
<input type="radio"/> Denial
<input type="radio"/> Final Permit/General Permit Registration | <input checked="" type="radio"/> Completed Database Sheet
<input type="radio"/> Withdrawal
<input type="radio"/> Letter
<input type="radio"/> Other (specify) _____

_____ |
|--|--|

Date	From	To	Action Requested
11/24	Ed	Bew	Please Review for Public Comment.
12/18	Bw	Ed	See Comments - Addition - Draft Notice

NOTE: Retain a copy of this manifest for your records when transmitting your document(s).



Permit / Application Information Sheet
Division of Environmental Protection
West Virginia Office of Air Quality

Company:	Clearon Corporation	Facility:	South Charleston
Region:	4	Plant ID:	039-00011
Engineer:	Andrews, Edward S.	Application #:	13-2050G
Physical Address:	95 MACCORKLE AVE, SW SOUTH CHARLESTON WV 25303	Category:	Explosive
County:	Kanawha	SIC: [2812] CHEMICALS AND ALLIED PRODUCTS - ALKALIES AND CHLORINE NAICS: [325181] Alkalies and Chlorine Manufacturing	
Other Parties:	ENV ENG - Amanda, Marcks 304-746-3046 Consultant - Morgan, Grant 3040-757-4777 OPER MGR - McKitrick, John 304-746-3136		

Information Needed for Database and AIRS
 1. Need valid physical West Virginia address with zip
 2. Pending result code (99) more than two months old

Regulated Pollutants
 HSO4P Sulfuric Acid 0.000 TPY

Summary from this Permit 13-2050G		
Air Programs	Applicable Regulations	
TITLE V	07	
Title V/Major		
Fee Program	Fee	Application Type
5A	\$1,000.00	MODIFICATION

Notes from Database

Activity Dates
 APPLICATION RECIEVED 10/19/2015
 APPLICATION FEE PAID 10/21/2015
 ASSIGNED DATE 10/21/2015
 APPLICANT PUBLISHED LEGAL AD 10/24/2015
 APPLICATION DEEMED COMPLETE 11/12/2015

NON-CONFIDENTIAL

Please note, this information sheet is not a substitute for file research and is limited to data entered into the AIRTRAX database.

Company ID: 039-00011
 Company: Clearon Corporation
 Printed: 11/24/2015
 Engineer: Andrews, Edward S.



west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304-2345
Phone: 304 926 0475 • Fax: 304 926 0479

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

ENGINEERING EVALUATION/FACT SHEET

B BACKGROUND INFORMATION

Application No.:	R13-2050G
Plant ID No.:	039-00011
Applicant:	Clearon Corporation
Facility Name:	Chlorinated Dry Bleach Plant
Location:	South Charleston
NAICS Code:	325180
Application Type:	Modification
Received Date:	October 19, 2015
Engineer Assigned:	Edward S. Andrews, P.E.
Fee Amount:	\$1000.00
Date Received:	October 21, 2015
Complete Date:	November 12, 2015
Due Date:	February 10, 2015
Applicant Ad Date:	October 24, 2015
Newspaper:	<i>Charleston Daily Mail</i>
UTM's:	Easting: 438.4 km Northing: 4,246.6 km Zone: 17
Description:	This action is for the replacement of Tank T-1003 at the facility.

DESCRIPTION OF PROCESS

Clearon Corporation's (Clearon) 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 CDBs at the South Charleston Plant. CDBs 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 the production of swimming pool treatment chemicals, cleansers, dishwashing detergents and various other products whose primary functions are cleaning, disinfecting, and sanitizing.

The sulfuric acid tank (T-1003) serves as a backup tank to the primary sulfuric acid tank (T-1007). Sulfuric acid is utilized in the production process to remove excess moisture that remains entrained with the chlorine gas. The existing T-1003 tank has a capacity of 3,200 gallons. Clearon proposes to replace T-1003 with a 3,000 gallon tank.

SITE INSPECTION

On September 21, 2015, Ms. Rebecca Johnson, an inspector assigned to the Compliance and Enforcement Section of the DAQ, conducted a routine compliance inspection of the South Charleston Plant. As a result of this inspection Ms. Johnson determined that the facility has been operating within compliance of their current permits and applicable rules. This writer determined that a site visit of the facility was not necessary for the review of this modification permit.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

The main pollutant released from this storage tank is sulfuric acid. The applicant used U.S. EPA's TANKs computer program. This approach yielded an estimate of 0.02 pounds of sulfuric acid losses on an annual basis.

The TANKs program does not specifically have sulfuric acid in the database. The writer used the tank loses property stencil and the chemical database in ProMax™, ProMax™ is a continuous process simulator with a chemical database of 2,080 chemical components. The tank loses property stencil in ProMax™ calculates working and breathing losses from vessels using the equations from Chapter AP-42. With this available database, the writer was able to create a solution of sulfuric acid at 97% concentration. The writer predicted the maximum potential of sulfuric acid to be 8.47E-7 tons per year (0.002 pounds per year). This was based on one turnaround every hour.

REGULATORY APPLICABILITY

The facility is an existing major source of HAPs. This proposed modification will not change this status. This proposed vessel will be supporting the urea pyrolysis kiln.

The new sulfuric acid tank is subject to the mineral acid standard of 45CSR7 because the vessel emits sulfuric acid. According to 45 CSR §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).

Engineering Evaluation of R13-2050G
Clearon Corporation
South Charleston Chlorinated Dry Bleach Plant
Non-confidential

Assuming the filling operation would take 60 minutes to fill the vessel with 3,000 gallons, the sulfuric acid concentration was predicted to be 23.97 mg per cubic meter by the applicant and 0.008 mg per cubic meter. The applicant based this concentration of the working losses of one turnaround of the vessel during the month of August, which was 0.0006 pounds of sulfuric acid mist. Using the Tank Losses property stencil in ProMax™, the writer is able to account for the water and sulfuric acid in the working losses, which was 1.89E-7 pounds of sulfuric acid per hour with a turnaround rate of one turnaround per hour. Regardless of the prediction method used, the vessel would be in compliance without the use of an add-on control device.

This vessel is not a manufacturing process; it is simply supporting a manufacturing process. Thus, the vessel is not subject to the visual emission standard of 45 CSR §7.3.1.

No other rules or regulations are applicable to this modification. This modification is not a major modification because the project increases of the New Source Review (NSR) pollutants are below the significance level as prescribed in Rule 14 (i.e. CO less than 100 tpy, NO_x less than 40 tpy). The permittee filed a complete application, paid the appropriate fees, and published a Class I legal ad to satisfy the modification permit requirements under Rule 13. Clearon has filed with this modification an Administrative Amendment request for these change to be incorporated into the facility Title V Operating Permit. The facility will remain a major source subject to Title V as a "5A Source".

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

Even with the new tank, the facility would not be either emitting a new HAP or toxic air pollutant other than what is currently being emitted. Thus, no information about the toxicity of the hazardous air pollutants (HAPs) is presented in this evaluation.

AIR QUALITY IMPACT ANALYSIS

The writer deemed that an air dispersion modeling study or analysis was not necessary, because the proposed modification does not meet the definition of a major modification of a major source as defined in 45CSR14.

MONITORING OF OPERATIONS

The potential emissions of sulfuric acid from the tank is only 68% of the allowable under Rule 7 without controls during filling operations, which is the activity that has the greatest potential of emissions. Thus, the writer recommends tracking the actual concentration of acid delivered to the facility.

Engineering Evaluation of R13-2050G
Clearon Corporation
South Charleston Chlorinated Dry Bleach Plant
Non-confidential

CHANGES TO PERMIT R13-2050F

Permit R13-2050F currently covers the urea pyrolysis kiln and associated support equipment at the facility. This permit is written in the old permit format with an appendix that has emission limits for the kiln and support equipment. The writer recommends converting Permit R13-2050G into the new format and adding the emission limits from Appendix A of Permit R13-2050F in Conditions 4.1.1., 4.1.10., and 4.1.12. The permit had established a mass sulfuric acid emission limit and Rule 7 sulfuric acid concentration limit for Tank T-1007. The mass emission limit for Tank T-1007 was 5.0 E-7 tons per year. The Director has already determined that this low of an emission limit for a storage vessel is unreasonable. The writer recommends omitting it and retaining only the Rule 7 sulfuric acid mist allowable in the permit.

The Rule 6 visible emission standard was added to Condition 4.1.1. because the Ammonia Incinerator (F-1804) is subject to this rule and was not included in Permit R13-2050F.

RECOMMENDATION TO DIRECTOR

The information provided in the permit application indicates the proposed modification of the facility will meet all the requirements of the application rules and regulations when operated in accordance to the permit application. Therefore, the writer recommends granting Clearon Corporation a Rule 13 modification permit for their replacement Tank T-1003 located at the South Charleston Chlorinated Dry Bleach Plant in South Charleston, WV.



Edward S. Andrews, P.E.
Engineer

December 28, 2015
Date

Engineering Evaluation of R13-2050G
Clearon Corporation
South Charleston Chlorinated Dry Bleach Plant
Non-confidential

West Virginia Department of Environmental Protection
Earl Ray Tomblin
Governor

Division of Air Quality

Randy C. Huffman
Cabinet Secretary

Permit to Modify



R13-2050G

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 above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

Clearon Corporation
South Charleston Chlorinated Dry Bleach Plant
039-00011

William F. Durham
Director

*Issued: **DRAFT***

This permit will supercede and replace Permit R13-2050F.

Facility Location: 95 MacCorkle Avenue
South Charleston, Kanawha County, West Virginia
Mailing Address: Same as Above
Facility Description: Chemical Manufacturing
NAICS Codes: 325180
UTM Coordinates: 438.4 km Easting • 4,246.6 km Northing • Zone 17
Permit Type: Modification
Description of Change: This action is for the replacement of Tank T-1003 at the facility.

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 subject to 45CSR30. Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement of the operations authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per 45CSR30.

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
F-1801	ST-1808	F-1801 Kiln D Offgas to D-1801 Urea Scrubber	1997	13 cu Ft	F-1804
		T-151 Urea Dissolution Tank	1997	10,000 gal	
		T-191 Urea Dissolution Tank	1997	10,000 gal	
		T-1001 Urea Dissolution Tank	1997	40,000 gal	
		T-381 Ammonia Removal Tank to partial condenser	1986	2,000 gal	
		T-382 Ammonia Removal Tank to partial condenser	1986	2,000 gal	
		T-156A Captive Water Tank	1976	28,000 gal	
		T-157A Demister Water Tank	1976	500 gal	
		T-126 Ammonia Sump (Relined in 2010)	2010	1,500 gal	
		T-103 Crude CA Storage Tank	1997	178,000 gal	
		T-1826 Sump Tank	1997	1,066 cu. Ft	
		T-1802 D Kiln Recycle Bin	1997	624 cu. Ft	
		C-1811 D Kiln Discharge Screw	1997	27,000 lbs/hr	
		C-1812 D Kiln Feed Screw	1997	63,000 lbs/hr	
		C-1801 D Kiln Elevator	1997	624 cu. Ft	
		C-1813 D Kiln Recycle Feed Bin	1997	660 cu. Ft/hr	
		C-1806 Receiver Bin Discharge Conveyor	1997	660 cu. Ft/hr	
		C-1814 D Kiln Screw Conveyor	1997	624 cu. Ft/hr	
	C-1803 D Kiln Receiver Conveyor	1997	624 cu. Ft/hr		
	ST-1802	F-1801 D Kiln Zones A, B, & C	1997	27,000 lbs/hr	None
T-151	F-176	T-151 Urea Dissolution Tank	1997	10,000 gal	S-151-A
T-191		T-191 Dissolution Tank	1997	10,000 gal	S-195
	D-222	T-285 Digester or T-275 Spare Digester to T-203 or T-245 High Pressure Flash Tanks	1996	21,000 gal	H-204**

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
H-204		H-204 Digestion Barometric Condenser	1989	12 ¾" Diameter	D-232**
T-230		T-230 Slurry Tank	1983	2,500 gal	
T-350		T-350 Acid Mix Tank	1986	11,000 gal	
T-233		T-233 Spare Digester	1969	11,000 gal	
D-232		D-232 Venturi Water Scrubber	1988	18" Diameter	D-222
T-349		T-349 Cold Acid Purge Tank	1986	550 gal	
T-334		T-334 Recycle Acid Tank	1995	3,800 gal	
T-387		T-387 Purge Acid Cooling Tank	1986	2,800 gal	
CE-301		Centrifuge	1962	48" Diameter x 24"	
CE-302		Centrifuge	1997	60" Diameter x 24"	
CE-321	Centrifuge	1972			
CE-322	Centrifuge	1995			
CE-324, S-343	S-301, S-302, S-321, S-322, S-324, S-343 Centrifuges	1973	355 cubic feet per hour		
T-1204 & T-234	T-1204 & T-234 Centrifuge Feed Tanks				
T-1003	T-1003	Sulfuric Acid Storage Tank	2016	3,031 gallons	None
T-1007	T-1007	Sulfuric Acid Storage Tank	1983	18,000 gallons	None
EG-100	EG-100	Diesel Fired Emergency Generator Set Mfg: Cummins	1997	1,340 hp	None

** - Product/Process Recovery Device

F-1804	Ammonia Incinerator
S-151-A	Fabric Filter Baghouse
S-195	Fabric Filter Baghouse
D-222	Packed Bed Water Scrubber

2.0. General Conditions

2.1. Definitions

- 2.1.1. All references to the “West Virginia Air Pollution Control Act” or the “Air Pollution Control Act” mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The “Clean Air Act” means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. “Secretary” means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary’s designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM_{2.5}	Particulate Matter less than 2.5 μm in diameter
C.F.R. or CFR	Code of Federal Regulations	PM₁₀	Particulate Matter less than 10μm in diameter
CO	Carbon Monoxide	Ppb	Pounds per Batch
C.S.R. or CSR	Codes of State Rules	Pph	Pounds per Hour
DAQ	Division of Air Quality	Ppm	Parts per Million
DEP	Department of Environmental Protection	Ppm_v or ppm_v	Parts per Million by Volume
dscm	Dry Standard Cubic Meter	PSD	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	Psi	Pounds per Square Inch
HAP	Hazardous Air Pollutant	SIC	Standard Industrial Classification
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
M	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
MDHI	Maximum Design Heat Input	USEPA	United States Environmental Protection Agency
MM	Million	UTM	Universal Transverse Mercator
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VEE	Visual Emissions Evaluation
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOC	Volatile Organic Compounds
NA	Not Applicable	VOL	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		

NESHAPS National Emissions Standards
for Hazardous Air Pollutants

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Act W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.4. Term and Renewal

- 2.4.1. This permit supersedes and replaces previously issued Permit R13-2050F. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-185, R13-474, R13-1462, R13-2050, R13-2050A, R13-2050B, R13-2050C, R13-2050D, R13-2050E, R13-2050F, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to; [45CSR§§13-5.11 and 10.3.]
- 2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;
- 2.5.3. 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;
- 2.5.4. 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.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of

confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

- 2.12.1. An “emergency” means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- 2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are met.
- 2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
 - d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

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

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

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.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1.]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management, and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]
- 3.1.4. **Odor.** 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.
[45CSR§4-3.1] *[State Enforceable Only]*
- 3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

[Reserved]

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary 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. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
 - b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
 - c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.
 - d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary

of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language;
2. The result of the test for each permit or rule condition; and,
3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
- 3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. *State Enforceable Only.*]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:
Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

If to the US EPA:
Associate Director
Office of Air Enforcement and Compliance Assistance
(3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. **Operating Fee**

- 3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.
- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous 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 Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

- 4.1.1. The emissions from F-1804 Ammonia Incinerator shall not exceed the following emission limits, as well as the venting arrangements, set forth in Table 1.0 of this permit. Any reference to an annual limit in this permit refers to any consecutive twelve (12) month period.
- a. NO_x emissions from the incinerator shall not exceed 6.90 pounds per hour and 30.2 tpy.
 - b. CO emissions from the incinerator 0.78 pounds per hour and 3.40 tpy.
 - c. VOC emissions from the incinerator 0.06 pounds per hour and 0.27 tpy.
 - d. PM emissions from the incinerator 0.30 pounds per hour and 1.33 tpy.
[45 CSR §6-4.1.]
 - e. SO₂ emissions from the incinerator 0.01 pounds per hour and 0.06 tpy.
 - f. Ammonia emissions from the incinerator 28 pounds per hour and 122.6 tpy.
 - g. The incinerator shall not exhibit visible emissions of twenty (20) percent opacity of greater on a six minute average.
[45 CSR §6-4.3.]
- 4.1.2. The permittee shall vent the emission units to the Ammonia Incinerator, F-1804 as indicated in Table 1.0 at all times except when no process-generated emissions are occurring. In the event of an unavoidable malfunction such as a power outage, or during periods of routine on-line rodding out, process generated emissions to the atmosphere shall be minimized by the permittee taking the following actions:
- a. Continue to operate the Ammonia Incinerator, F-1804, if practical.
 - b. If the Ammonia Incinerator, F-1804, operating temperature falls below 950°C or rises above 1050°C, then the permittee shall:
 - i. Halt urea feed to the urea Kiln D, F-1801.
 - ii. Minimize process-generated emissions by switching quench sprays on the D-1801 Urea Scrubber to captive water.
- 4.1.3. The maximum hourly amount of urea fed to Kiln D (F-1801) shall not exceed 6,200 pounds urea (dry weight basis) per hour from storage.
- 4.1.4. The maximum hourly and annual plant wide production of cyanuric acid (CA) from Kilns A, B, C, and D shall not exceed 11,900 pounds per hour and 52,122 tons per year.

- 4.1.5. The maximum natural gas usage for Kiln D shall not exceed 13,075 scf/hr and 114.5 MMscf/yr.
- 4.1.6. The permittee shall install, calibrate, and maintain a device to continuously monitor and record the operating temperature of Ammonia Incinerator F-1804. Except during startup/shutdown of Ammonia Incinerator F-1804, or as allowed by Condition 4.1.2. of this permit, the operating temperature of Ammonia Incinerator F-1804 shall be maintained at the following conditions while process-generated emissions from units as indicated to be vented to the Ammonia Incinerator in Table 1.0 are occurring:
- a. The minimum operating temperature shall be 950°C.
 - b. The maximum operating temperature shall be 1,050°C.
- 4.1.7. Ammonia incinerator F-1804 shall maintain a minimum ammonia destruction efficiency of 98.7%.
- 4.1.8. A maximum of 1,200,000 lb/day urea shall be unloaded via railcar or truck to the facility. Rail car and truck unloading operations shall not occur simultaneously.
- 4.1.9. The maximum of annual quantity of materials delivered to the facility shall not exceed the following:
- a. 83,000 tons of urea per year via railcars or trucks; and
 - b. 25,000 tons of crude cyanuric acid per year via railcars.
- 4.1.10. Particulate matter emissions from emission point F-176 shall not exceed 0.22 pounds per hour and 0.38 tons per year. Compliance with these limits is based on proper operation of the associated control devices (S-151-A and S-195). The permittee shall install, calibrate, and maintain monitoring equipment to demonstrate that the following parameters are met during all times of operation for the following baghouses:

Baghouse Identification	Minimum Static Pressure Drop (inches water column)
S-151-A	2.0
S-195	2.0

- a. Monitoring and recordkeeping for each baghouse and for each parameter listed above shall be performed at a minimum of once per week to determine compliance with the permitted limits.
 - b. The permittee shall be granted exception from this requirement for 24 hours following new bag(s) startup.
- 4.1.11. The permittee shall install, calibrate, and maintain monitoring equipment on-site to demonstrate, at the permittee's discretion or upon request of Division of Air Quality personnel, that the following parameters are met during the operation of the following baghouses:

Baghouse Identification	Maximum Air Flow Rate (acfm)
S-151-A	1,290
S-195	1,290

- 4.1.12. The maximum concentration of sulfuric acid mist from the venturi water scrubber D-222 (emission point D-222) shall not exceed 70 mg/dscm, which equates to concentration of 17.2 ppmvd. Sulfur acid emissions from emission point D-222 shall not exceed 0.42 pounds per hour and 1.80 tons per year.
 [45 CSR §7-4.2. and Table 45-7B of 45 CSR 7]
- 4.1.13. The maximum concentration of sulfuric acid mist from Tanks T-1003 and T-1007 shall not exceed 35 mg/dscm, which equates to a concentration of 8.6 ppmvd. Compliance with limit is satisfied by storing sulfuric acid in the vessel of a concentration at or less than 93% by weight.
 [45 CSR §7-4.2. and Table 45-7B of 45 CSR 7]
- 4.1.14. Hourly and annual emissions from the EG-100 Emergency Generator shall not exceed the maximum limits given in the table below.

Pollutant	Emission Factors ¹ (lb/hp-hr) (power output)	Uncontrolled Maximum Emissions	
		(lb/hr)	(TPY ²)
PM	0.0007	0.938	0.23
VOC	0.000705	0.945	0.24
CO	0.0055	7.37	1.84
NO _x	0.024	32.16	8.04
SO ₂ ³	0.00809	10.84	2.71

- | | |
|---|---|
| 1 | Emission factors from EPA's AP-42, Chapter 3.4 "Large Stationary Diesel and All Stationary Dual-fuel Engines," Table 3.4-1 "Gaseous Emission Factors for Large Stationary Diesel and All Stationary Dual-Fuel Engines." |
| 2 | Based on operating the EG-100 emergency generator 500 hours per year. |
| 3 | Clearon calculated the SO ₂ emission factor based on 1% by weight sulfur in #2 fuel oil (diesel). |

- 4.1.15. **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.]

4.2. Monitoring Requirements

- 4.2.1. To determine compliance with permitted natural gas fuel use limits, raw material (urea) limits, product (purified CA) limits, and vendor received crude cyanuric acid limits, the permittee shall maintain records of daily, monthly, and annual throughputs. In addition the permittee shall maintain records of air pollution control devices to show compliance with the parameters identified of Conditions 4.1.1. of this permit. Such records must be maintained in accordance with Condition 3.4.1.
- 4.2.2. For the purpose of determining compliance with the maximum emission rate limitations established for the emergency generator/diesel engine as set forth in Condition 4.1.14., the permittee shall keep daily, monthly, and annual records of hours of operation, and any and all maintenance work performed on the generator/engine. Such records must be maintained in accordance with Condition 3.4.1.

4.3. Testing Requirements

[Reserved]

4.4. Recordkeeping Requirements

- 4.4.1. **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.
- 4.4.2. **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.
- 4.4.3. **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.

- 4.4.4. For the purpose of complying with Condition 4.1.13., the permittee shall maintain records of concentration of the sulfuric acid received by the facility and stored either in T-1003 or T-1007 or other documentation that demonstrates that the sulfuric acid stored in Tanks T-1003 and T-1007 does not exceed the sulfuric acid mist concentration standard stated in Condition 4.1.13. Such records shall be maintained in accordance with Condition 3.4.1.

4.5. Reporting Requirements

[Reserved]

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.

Signature¹ _____ Date _____
(please use blue ink) Responsible Official or Authorized Representative

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

Telephone No. _____ Fax No. _____

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 U.S. EPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.

Andrews, Edward S

From: Marcks, Amanda K <Amanda.Marcks@Icl-Group.com>
Sent: Friday, January 15, 2016 12:05 PM
To: Andrews, Edward S
Subject: Final comments of R13-2050 permit modification
Attachments: R13-2050G preDRAFT-Final comments.docx; R13-2050 table of emissions

Ed,

Sorry it took so long but I have the final comments from the 2050F permit modification. I am attaching the document, please note that I sent you the updated Table of Emissions Units in a previous e-mail and the Table 1.0 in this document has not been changed. Thank you for allowing Clearon to have an input in the update and modification of this permit. I look forward to hearing from you.

Thanks,

Amanda Marcks
Environmental Engineer
Mobile: +1-304-550-8028
Office: +1-304-746-3046
Fax: +1-304-746-3034
Amanda.Marcks@icl-Group.com

ID # 39-11
Reg R13-2050G
Company Clearon
Facility S.B. Initials EA



Confidentiality Notice: This email is confidential, may be legally privileged, and is for the intended recipient only. Access, disclosure, copying, or distribution by or to unauthorized persons is prohibited and may be a criminal offense. Please delete if obtained in error and notify the sender of your receipt of this email. This e-mail does not constitute a contract or an offer or acceptance of an offer to enter into a contract. Further, this e-mail may not be used to modify, supplement, novate, or waive any rights with respect to an existing contract or other binding commercial terms.

Entire Document
NON-CONFIDENTIAL

This permit will supercede and replace Permit R13-2050F.

Facility Location: 95 MacCorkle Avenue
South Charleston, Kanawha County, West Virginia
Mailing Address: Same as Above
Facility Description: Chemical Manufacturing
NAICS Codes: 325180
UTM Coordinates: 438.4 km Easting • 4,246.6 km Northing • Zone 17
Permit Type: Modification
Description of Change: This action is for the replacement of Tank T-1003 at the facility.

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 subject to 45CSR30. Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement of the operations authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per 45CSR30.

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
F-1801	ST-1808	F-1801 Kiln D Offgas to D-1801 Urea Scrubber	1997		F-1804
T-151		T-151 Urea Dissolution Tank			
T-191		T-191 Urea Dissolution Tank			
T-1001		T-1001 Urea Dissolution Tank			
T-381		T-381 Ammonia Removal Tank to partial condenser			
T-382		T-382 Ammonia Removal Tank to partial condenser			
T-156A		T-156A Captive Water Tank			
T-157A		T-157A Demister Water Tank			
T-126		T-126 Ammonia Sump			
T-103		T-103 Crude CA Storage Tank			
T-1826		T-1826 Sump Tank			
T-1802		T-1802 D Kiln Recycle Bin			
C-1811		C-1811 D Kiln Discharge Screw			
C-1812		C-1812 D Kiln Feed Screw			
C-1801		C-1801 D Kiln Elevator			
C-1813		C-1813 D Kiln Recycle Feed Bin			
C-1806		C-1806 Receiver Bin Discharge Conveyor			
C-1814		C-1814 D Kiln Screw Conveyor			
C-1815		C-1815 D Kiln Screw Conveyor			
C-1803		C-1803 D Kiln Receiver Conveyor			
F-1801	ST-1802	F-1801 D Kiln Zones A, B, & C			None
T-151	F-176	T-151 Urea Dissolution Tank			S-151-A
T-191		T-191 Dissolution Tank			S-195
	D-222	T-285 Digester or T-275 Spare Digester to T-203 or T-245 High Pressure Flash Tanks	1996		H-204**
H-204		H-204 Digestion Barometric Condenser	1989	12 3/4" Diameter	D-232**
T-230		T-230 Slurry Tank	1983	2,500 gal	
T-350		T-350 Acid Mix Tank	1986	11,000 gal	

Commented [AKM1]: See the attached Excel table

Commented [AKM1]: See the attached Excel table

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
T-233		T-233 Spare Digester	1969	11,000 gal	D-222
D-232		D-232 Venturi Water Scrubber	1988	18" Diameter	
T-349		T-349 Cold Acid Purge Tank	1986	550 gal	
T-334		T-334 Recycle Acid Tank	1995	3,800 gal	
T-387		T-387 Purge Acid Cooling Tank	1986	2,800 gal	
S-301, S-302, S-321, S-322, S-324, S-343		S-301, S-302, S-321, S-322, S-324, S-343 Centrifuges		355 cubic feet per hour	
T-1204 & T-234		T-1204 & T-234 Centrifuge Feed Tanks			
T-1003	T-1003	Sulfuric Acid Storage Tank	2015	3,031 gallons	None
T-1007	T-1007	Sulfuric Acid Storage Tank	1983	18,000 gallons	None
EG-100	EG-100	Diesel Fired Emergency Generator Set Mfg. Cummins	1997	1,340 hp	None

** - Product/Process Recovery Device

F-1804	Ammonia Incinerator
S-151-A	Fabric Filter Baghouse
S-195	Fabric Filter Baghouse
D-222	Packed Bed Water Scrubber

2.0. General Conditions

2.1. Definitions

- 2.1.1. All references to the “West Virginia Air Pollution Control Act” or the “Air Pollution Control Act” mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The “Clean Air Act” means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. “Secretary” means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary’s designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM_{2.5}	Particulate Matter less than 2.5 µm in diameter
C.F.R. or CFR	Code of Federal Regulations	PM₁₀	Particulate Matter less than 10µm in diameter
CO	Carbon Monoxide		
C.S.R. or CSR	Codes of State Rules		
DAQ	Division of Air Quality	Ppb	Pounds per Batch
DEP	Department of Environmental Protection	Pph	Pounds per Hour
		Ppm	Parts per Million
dscm	Dry Standard Cubic Meter	Ppmv or ppmv	Parts per Million by Volume
FOIA	Freedom of Information Act	PSD	Prevention of Significant Deterioration
HAP	Hazardous Air Pollutant		
HON	Hazardous Organic NESHAP	Psi	Pounds per Square Inch
HP	Horsepower	SIC	Standard Industrial Classification
lbs/hr	Pounds per Hour		
LDAR	Leak Detection and Repair	SIP	State Implementation Plan
M	Thousand	SO₂	Sulfur Dioxide
MACT	Maximum Achievable Control Technology	TAP	Toxic Air Pollutant
		TPY	Tons per Year
MDHI	Maximum Design Heat Input	TRS	Total Reduced Sulfur
MM	Million	TSP	Total Suspended Particulate
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	USEPA	United States Environmental Protection Agency
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour		
NA	Not Applicable	UTM	Universal Transverse Mercator
NAAQS	National Ambient Air Quality Standards	VEE	Visual Emissions Evaluation
		VOC	Volatile Organic Compounds
		VOL	Volatile Organic Liquids

NESHAPS National Emissions Standards
for Hazardous Air Pollutants

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Act W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.4. Term and Renewal

- 2.4.1. This permit supersedes and replaces previously issued Permit R13-2050F. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-185, R13-474, R13-1462, R13-2050, R13-2050A, R13-2050B, R13-2050C, R13-2050D, R13-2050E, R13-2050F, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to; [45CSR§§13-5.11 and 10.3.]
- 2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;
- 2.5.3. 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;
- 2.5.4. 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.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along

with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

- 2.12.1. An “emergency” means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- 2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are met.
- 2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
 - d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

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

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

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.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1.]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management, and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]
- 3.1.4. **Odor.** 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.
[45CSR§4-3.1] *[State Enforceable Only]*
- 3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

[Reserved]

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary 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. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
 - b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
 - c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.
 - d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a

summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language;
2. The result of the test for each permit or rule condition; and,
3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
- 3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. *State Enforceable Only.*]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

If to the US EPA:

Associate Director
Office of Air Enforcement and Compliance Assistance
(3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. Operating Fee

3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous 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 Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

- 4.1.1. The emissions from F-1804 Ammonia Incinerator shall not exceed the following emission limits, as well as the venting arrangements, set forth in Table 1.0 of this permit. Any reference to an annual limit in this permit refers to any consecutive twelve (12) month period.
- a. NO_x emissions from the incinerator shall not exceed 6.90 pounds per hour and 30.2 tpy.
 - b. CO emissions from the incinerator 0.78 pounds per hour and 3.40 tpy.
 - c. VOC emissions from the incinerator 0.06 pounds per hour and 0.27 tpy.
 - d. PM emissions from the incinerator 0.30 pounds per hour and 1.33 tpy.
[45 CSR §6-4.1.]
 - e. SO₂ emissions from the incinerator 0.01 pounds per hour and 0.06 tpy.
 - f. Ammonia emissions from the incinerator ~~286.04~~ pounds per hour and ~~122.60-06~~ tpy.
 - g. The incinerator shall not exhibit visible emissions of twenty (20) percent opacity of greater on a six minute average.
[45 CSR §6-4.3.]
- 4.1.2. The permittee shall vent all process-generated pollutants specified in Table 1.0 to the Ammonia Incinerator, F-1804, at all times except when no process-generated emissions are occurring. In the event of an unavoidable malfunction such as a power outage, or during periods of routine on-line rodding out, process generated emissions to the atmosphere shall be minimized by the permittee taking the following actions:
- a. Continue to operate the Ammonia Incinerator, F-1804, if practical.
 - b. If the Ammonia Incinerator, F-1804, operating temperature falls below 950°C or rises above 1050°C, then the permittee shall:
 - i. Halt urea feed to the urea Kiln D, F-1801.
 - ii. Minimize process-generated emissions by switching quench sprays on the D-1801 Urea Scrubber to captive water.
- 4.1.3. The maximum hourly amount of urea fed to Kiln D (F-1801) shall not exceed 6,200 pounds urea (dry weight basis) per hour from storage.
- 4.1.4. The maximum hourly and annual plant wide production of cyanuric acid (CA) from Kilns A, B, C, and D shall not exceed 11,900 pounds per hour and 52,122 tons per year.

Commented [AKM2]: The emissions limits for Ammonia are incorrect. The emissions used were SO₂ emissions and not Ammonia emissions limits.

Commented [AKM3]: 1) There are no pollutants specified in Table 1.0 as emissions calc's that were included in Appendix A are now within the text. 2) There is more equipment than just F-1804 referenced in Table 1.0 and, as specified in the table, they do not vent to F-1804.

- 4.1.5. The maximum natural gas usage for Kiln D shall not exceed 13,075 scf/hr and 114.5 MMscf/yr.
- 4.1.6. The permittee shall install, calibrate, and maintain a device to continuously monitor and record the operating temperature of Ammonia Incinerator F-1804. Except during startup/shutdown of Ammonia Incinerator F-1804, or as allowed by Condition 4.1.2. of this permit, the operating temperature of Ammonia Incinerator F-1804 shall be maintained at the following conditions while process-generated emissions listed in [Condition 4.1.1 Appendix A](#) are occurring:
- a. The minimum operating temperature shall be 950°C.
 - b. The maximum operating temperature shall be 1,050°C.
- 4.1.7. Ammonia incinerator F-1804 shall maintain a minimum ammonia destruction efficiency of 98.7%.
- 4.1.8. A maximum of 1,200,000 lb/day **prilled urea** shall be unloaded via railcar or truck to the facility. Rail car and truck unloading operations shall not occur simultaneously.
- 4.1.9. The maximum of annual quantity of materials delivered to the facility shall not exceed the following:
- a. 83,000 tons of **prilled urea** per year via railcars or trucks; and
 - b. 25,000 tons of crude cyanuric acid per year via railcars.
- 4.1.10. Particulate matter emissions from emission point F-176 shall not exceed 0.22 pounds per hour and 0.38 tons per year. Compliance with these limits is based on proper operation of the associated control devices (S-151-A and S-195). The permittee shall install, calibrate, and maintain monitoring equipment to demonstrate that the following parameters are met during all times of operation for the following baghouses:

Commented [AKM4]: Combined two railcar requirements Sections A 9 and A 16 — Seems an odd spot to bring in Crude CA

Baghouse Identification	Minimum Static Pressure Drop (inches water column)
S-151-A	2.0
S-195	2.0

- a. Monitoring and recordkeeping for each baghouse and for each parameter listed above shall be performed at a minimum of once per week to determine compliance with the permitted limits.
 - b. The permittee shall be granted exception from this requirement for 24 hours following new bag(s) startup.
- 4.1.11. The permittee shall install, calibrate, and maintain monitoring equipment on-site to demonstrate, at the permittee's discretion or upon request of Division of Air Quality personnel, that the following parameters are met during the operation of the following baghouses:

Baghouse Identification	Maximum Air Flow Rate (acfm)
S-151-A	1,290
S-195	1,290

- 4.1.12. The maximum concentration of sulfuric acid mist from the venturi water scrubber D-222 (emission point D-222) shall not exceed 70 mg/dscm, which equates to concentration of 17.2 ppmvd. Sulfuric acid emissions from emission point D-222 shall not exceed 0.42 pounds per hour and 1.80 tons per year.
 [45 CSR §7-4.2. and Table 45-7B of 45 CSR 7]
- 4.1.13. The maximum concentration of sulfuric acid mist from Tanks T-1003 and T-1007 shall not exceed 35 mg/dscm, which equates to a concentration of 8.6 ppmvd. Compliance with limit is satisfied by storing sulfuric acid in the vessel of a concentration at or less than 93% by weight.
 [45 CSR §7-4.2. and Table 45-7B of 45 CSR 7]
- 4.1.14. Hourly and annual emissions from the EG-100 Emergency Generator shall not exceed the maximum limits given in the table below.

Commented [AKM5]: Not what 2050G said, it was naming the tank "93% sulfuric acid tank T-1007" but there was no limit on concentration. Clearon uses the nominal concentration of 93% Sulfuric Acid in the process, nevertheless, there are slight variances in the concentration at each unloading

Pollutant	Emission Factors ¹ (lb/hp-hr) (power output)	Uncontrolled Maximum Emissions	
		(lb/hr)	(TPY ²)
PM	0.0007	0.938	0.23
VOC	0.000705	0.945	0.24
CO	0.0055	7.37	1.84
NOx	0.024	32.16	8.04
SO ₂ ³	0.00809	10.84	2.71

1 Emission factors from EPA's AP-42, Chapter 3.4 "Large Stationary Diesel and All Stationary Dual-fuel Engines," Table 3.4-1 "Gaseous Emission Factors for Large Stationary Diesel and All Stationary Dual-Fuel Engines."
 2 Based on operating the EG-100 emergency generator 500 hours per year.
 3 Clearon calculated the SO₂ emission factor based on 1% by weight sulfur in #2 fuel oil (diesel).

- 4.1.15. **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.]

4.2. Monitoring Requirements

- 4.2.1. To determine compliance with permitted natural gas fuel use limits, raw material (prilled-urea) limits, product (purified CA) limits, and vendor received crude cyanuric acid limits, the permittee shall maintain records of daily, monthly, and annual throughputs. In addition the permittee shall maintain records of air pollution control devices to show compliance with the parameters identified of Conditions 4.1.1. of this permit. Such records must be maintained in accordance with Condition 3.4.1.
- 4.2.2. For the purpose of determining compliance with the maximum emission rate limitations established for the emergency generator/diesel engine as set forth in Condition 4.1.14., the permittee shall keep daily, monthly, and annual records of hours of operation, and any and all maintenance work performed on the generator/engine. Such records must be maintained in accordance with Condition 3.4.1.

4.3. Testing Requirements

[Reserved]

4.4. Recordkeeping Requirements

- 4.4.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:
- The date, place as defined in this permit, and time of sampling or measurements;
 - The date(s) analyses were performed;
 - The company or entity that performed the analyses;
 - The analytical techniques or methods used;
 - The results of the analyses; and
 - The operating conditions existing at the time of sampling or measurement.
- 4.4.2. **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.
- 4.4.3. **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:
- The equipment involved.
 - Steps taken to minimize emissions during the event.
 - The duration of the event.
 - 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.

4.4.4. For the purpose of complying with Condition 4.1.13, the permittee shall maintain records of concentration of the sulfuric acid received by the facility and stored either in T-1003 or T-1007. Such records shall be maintained in accordance with Condition 3.4.1.

4.5. Reporting Requirements

[Reserved]

Commented [AKM6]: Clearon wishes to decline this requirement. Each batch of 93% Sulfuric acid has a slight +/- variance in concentration, as stated in a previous comment, however, we only use the normal concentration of 93% in our process. What is the rationale behind needing this?

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.

Signature¹ _____
(please use blue ink) Responsible Official or Authorized Representative Date

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

Telephone No. _____ Fax No. _____

-
- 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 U.S. EPA); or
 - d. The designated representative delegated with such authority and approved in advance by the Director.

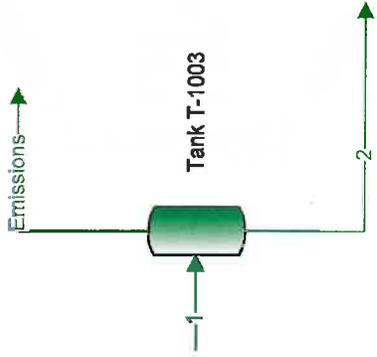
Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
F-1801	ST-1806	F-1801 Kiln D offgas to D-1801 Urea Scrubber	1997	13 cu. Ft	F-1804
		T-151 Urea Dissolution Tank	1997	10,000 gal	
		T-191 Dissolution Tank	1997	10,000 gal	
		T-1001 Urea Dissolution Tank	1997	40,000 gal	
		T-381 Ammonia Removal Tank to partial condenser	1986	2,000 gal	
		T-382 Ammonia Removal Tank to partial condenser	1986	2,000 gal	
		T-156A Captive Water Tank	1976	28,000 gal	
		T-157A Demister Water Tank	1976	500 gal	
		T-126 Ammonia Sump (relined in 2010)	2010	1,500 gal	
		T-103 Crude CA Storage Tank	1995	178,000 lbs	
		T-1826 Sump Tank	1997	1,170 gal	
		T-1802 D Kiln Recycle Bin	1997	1,066 cu. Ft	
		C-1811 D Kiln Discharge Screw	1997	624 cu. Ft	
		C-1812 D Kiln Feed Screw	1997	27,000 lbs/hr	
		C-1801 D Kiln Elevator	1997	63,000 lbs/hr	
		C-1813 D Kiln Recycle Feed Bin	1997	624 cu. Ft	
		C-1806 Receiver Bin Discharge Conveyor	1997	660 cu. Ft/hr	
		C-1814 D Kiln Screw Conveyor	1997	624 cu. Ft/hr	
		C-1815 D Kiln Screw Conveyor-Does not exist			
		ST-1802	F-1801 D Kiln Zones A, B, & c	1997	27,000 lbs/hr
T-151	ST-176 (F-176)	T-151 Urea Dissolution Tank	1997	10,000 gal	S-151-A
T-191		T-191 Dissolution Tank	1997	10,000 gal	S-195
T-285	D-222	T-285 Digester	1996	21,000 gal	H-204
T-275		T-275 Digester	1988	11,000 gal	
T-203		T-203 Flash Tank	1987	11,000 gal	
T-245		T-245 Flash Tank	1986	11,000 gal	
H-204	D-222	H-204 Digestion Barometric Condenser	1989	12.75" Diameter	D-232
T-230		T-230 Slurry Tank	1983	2,500 gal	
T-350		T-350 Acid Mix Tank	1986	11,000 gal	
T-233		T-233 Spare Digester-Not in service	1969	11,000 gal	
D-232	D-222	D-232 Venturi Water Scrubber	1988	18" Diameter	D-222
T-349		T-349 Cold Acid Purge Tank	1986	550 gal	
T-334		T-334 Recycle Acid Tank	1995	3,800 gal	
T-387		T-387 Purge Acid Cooling Tank	1986	2,800 gal	
CE-301		Centrifuge	1962	48" Diameter x 24"	
CE-302		Centrifuge	1997	60" Diameter x 40"	
CE-321		Centrifuge	1972	48" Diameter x 24"	
CE-322		Centrifuge	1995	60" Diameter x 40"	
CE-324		Centrifuge	1997	60" Diameter x 40"	
CE-343		Centrifuge	1973	48" Diameter x 24"	
T-1204	Centrifuge Feed Tank	2002	2,100 gal		
T-234	Centrifuge Feed Tank	1995	2,100 gal		
T-1007	T-1007	93% Sulfuric Acid Storage Tank	1983	18,000 gal	None
T-1003	T-1003	93% Sulfuric Acid Storage Tank	2016	3,031 gal	None

Table 1.1 Control Devices

F-1804	Ammonia Incinerator
S-151-A	Fabric Filter Baghouse
S-195	Fabric Filter Baghouse

D-222	Packed Bed Water Scrubber
D-232	Venturi Water Scrubber
H-204	Digestion Barometric Condenser

ID # 039-00011
Reg R13-1620506
Company Clearon
Facility S.C. PH Initials ER



Tank loss calculations for "1"
Total working and breathing losses from the Vertical Cylinder are 0.008022 ton/yr.
Flashing losses are 0 ton/yr.

Tank-1

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Promax AP-42 Emissions Report
Annual Emissions

Vertical Cylinder

Components	Working Losses (ton/yr)	Breathing Losses (ton/yr)	Total Losses (ton/yr)
Mixture	0.007882	0.0001402	0.008022
Sulfuric Acid	8.317E-07	1.479E-08	8.465E-07
Water	0.007881	0.0001402	0.008021

The screenshot displays a software interface for a process simulation. A window titled 'Tank 1-1002' is open, showing a table of emission data. The table has four columns: 'Component', 'Working Losses (ton/yr)', 'Breathing Losses (ton/yr)', and 'Total Losses (ton/yr)'. The data rows are: Mixture (0.007882, 0.0001402, 0.008022), Sulfuric Acid (8.317E-07, 1.479E-08, 8.465E-07), and Water (0.007881, 0.0001402, 0.008021). The interface also includes a process flow diagram with a tank icon and various control panels.

Component	Working Losses (ton/yr)	Breathing Losses (ton/yr)	Total Losses (ton/yr)
Mixture	0.007882	0.0001402	0.008022
Sulfuric Acid	8.317E-07	1.479E-08	8.465E-07
Water	0.007881	0.0001402	0.008021



October 30, 2015

Mr. Ed Andrews
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, West Virginia, 25304

ID # 39-11
Reg R13-20506
Company Clearon
Facility S. S. 7th initials EM

**RE: Rule 13 Permit Modification
Clearon Corporation
South Charleston Chlorinated Dry Bleach Plant**

Mr Andrews,

Please find the enclosed original notarize affidavit and original newspaper clipping of the Air Quality Public Notice for the South Charleston Chlorinated Dry Bleach Plant for Clearon Corporation.

Should you have any comments or questions, please contact me at 304-757-4777 x109 or at Grant.morgan@erm.com.

Sincerely,

Grant Morgan
ERM

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CHARLESTON NEWSPAPERS

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SALES REP ID	0055
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ISSUE DATE	AD TYPE	PUB	DESCRIPTION	AD NUMBER	AD SIZE		RATE	GROSS AMOUNT	NET AMOUNT
					TOTAL RUN	5.00			
10/24	LEG	SA	151047001 - Clearon C 971047001	0613247	IX0500	5.00	9.10	45.50	45.50
TOTAL INVOICE AMOUNT									45.50

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WV DEPT OF ENVIRONMENTAL PROTECTION

State of West Virginia

AFFIDAVIT OF PUBLICATION

ADVERTISEMENT
Attachment P
AIR QUALITY PERMIT NOTICE
Notice of Application

Notice is given that Clearon Corporation has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Modification Permit for a chlorinated dry bleach plant located on MacCorkle Avenue, South Charleston, Kanawha County, West Virginia. The latitude and longitude coordinates are: 38.36784, -81.70657.

The applicant estimates the potential to discharge the following regulated air pollutants on a facility-wide basis will be:

Sulfuric Acid = <0.01 tpy

Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th 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 24th day of October, 2015.

By:
Clearon Corporation
John Kadlec
Director of Operations
95 MacCorkle Avenue
South Charleston, WV 25303
(613247)



Subscribed and sworn to before me this 27th day of October, 2015
1(s) and during the dates listed below: 10/24/15-10/24/15

Notary Public of Kanawha County, West Virginia

Andrews, Edward S

From: Ward, Beth A
Sent: Thursday, October 22, 2015 3:32 PM
To: Andrews, Edward S
Subject: CLEARON CORPORATION PERMIT APPLICATION FEE

This is the receipt for payment received from:

CLERON CORPORATION, SOUTH CHARLESTON, CHECK NUMBER 100013299, CHECK DATE 10/07/2015, \$1000.00
R13-2050G ID# 039-00011

OASIS Deposit CR 1600044925

Beth Ward

WV DEPARTMENT OF ENVIRONMENTAL PROTECTION
601 57TH STREET SE
CHARLESTON, WV 25304
(304) 926-0499 EXT 1846
beth.a.ward@wv.gov

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Adkins, Sandra K

From: Adkins, Sandra K
Sent: Wednesday, October 21, 2015 12:14 PM
To: 'amanda.marcks@icl-group.com'; 'grant.morgan@erm.com'
Cc: McKeone, Beverly D; Andrews, Edward S
Subject: WV DAQ Permit Application Status for Clearon Corporation; South Charleston

**RE: Application Status
Clearon Corporation
South Charleston
Plant ID No. 039-00011
Application No. R13-2050G**

Ms. Marcks,

Your application for a modification permit for the South Charleston location was received by this Division on October 19, 2015, and was assigned to Ed Andrews. The following item was not included in the initial application submittal:

Original affidavit for Class I legal advertisement not submitted.

This item is necessary for the assigned permit writer to continue the 30-day completeness review.

Within 30 days, you should receive a letter from Ed stating the status of the permit application and, if complete, given an estimated time frame for the agency's final action on the permit.

Any determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit decision.

Should you have any questions, please contact the assigned engineer, Ed Andrews, at 304-926-0499, extension 1214.

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