



**PERMIT**  
**Under the Environmental Conservation Law (ECL)**

**IDENTIFICATION INFORMATION**

Permit Type: Air Title V Facility  
Permit ID: 9-2911-00112/00233  
Effective Date: 03/14/2014 Expiration Date: 03/13/2019

Permit Issued To: OCCIDENTAL CHEMICAL CORP  
5005 LBJ FREEWAY  
DALLAS, TX 75244

Contact: OXYCHEM NIAGARA  
OCCIDENTAL CHEMICAL CORP  
PO BOX 344  
NIAGARA FALLS, NY 14302-0344  
(716) 278-7534

Facility: OCCIDENTAL CHEMICAL CORP - NIAGARA PLANT  
BUFFALO AVE AND 47TH ST  
NIAGARA FALLS, NY 14302-0344

Contact: JAMES J CZAPLA  
OCCIDENTAL CHEMICAL CORPORATION  
PO BOX 344  
NIAGARA FALLS, NY 14302-0344  
(716) 278-7534

**Description:**

Occidental Chemical Corporation's Niagara Falls Facility consists of two main sections: chlorine/caustic production and Dechlorane Plus production/Remedial Areas. Each of these two main sections is covered by a separate Title V Permit. The other specialty chemicals facilities and liquid waste incinerator formerly operated by the facility have been shut down and demolished, and the plant remedial activities which were previously included in the chlorine/caustic production permit are now grouped with the Dechlorane Plus production activities. Permit application DEC ID 9-2911-00112/00234 is for the Dechlorane Plus production/Remedial Areas portion.

This permit, DEC ID 9-2911-00112/00233, is a renewal of the existing Title V permit for the chlorine/caustic production portion of the facility. The renewal includes a permit modification regarding the addition of a new emission unit, C-00006, consisting of hydrochloric (HCl) acid synthesis and HCl acid concentration, proofing, and storage processes, to Occidental Chemical Corporation's Niagara Plant chlorine/caustic production. The renewal also includes the installation of two emergency backup diesel powered generators as part of Emission Unit C-00001 ("C" Area Chlor-Alkali Process Scrubbers).

Air emission points are associated with both the production area and the support facilities for the chlorine/caustic portion of the facility as follows:



A. Chlorine and Caustic - Chemicals produced in this area include but are not limited to the following:

1. Chlorine
2. Sodium Hydroxide
3. Hydrogen
4. Sodium Hypochlorite
5. Gypsum (by-product)
6. Hydrogen Chloride.

B. Support Facilities include:

1. Waste Storage (< 90 days)
2. General Building Ventilation Systems
3. Product Loading/Packaging
4. Maintenance Facilities
5. Cell Reconstruction
6. Cooling Towers
7. Portable Scrubbers.

Emission units associated with plant operations are as follows:

- B-00001 Chlor-Alkali Hydrogen vents
- B-00002 Chlor-Alkali Process Acid Storage Tanks
- B-00003 Chlor-Alkali Process Miscellaneous
- C-00001 "C" Area Chlor-Alkali Process Scrubbers
- C-00006 HCl Acid Synthesis and Storage Unit
- E-00001 HCl Acid Scrubber Vent
- H-00001 "H" Area Chlor-Alkali Process Scrubbers
- I-00001 Bulk Material Storage Building Ventilation Systems
- J-00001 Chlor-Alkali Process Cell Construction
- Z-00001 Facility Refrigeration Systems
- Z-00002 Facility Fugitive Emissions
- Z-00003 Transfer Operations
- Z-00004 Miscellaneous Exempt Combustion Sources

The facility operation is permitted primarily under the following regulations:

- 1) 6 NYCRR Part 201-6 requires the facility to obtain a Title V permit
- 2) 6 NYCRR Part 212 requires process sources to install air emission control devices depending on the type of contaminant emitted and the emission rate potential
- 3) 6 NYCRR Part 229 regulates volatile organic liquid storage tanks
- 4) 40 CFR 61 Subpart M National Emissions Standards for Asbestos
- 5) 40 CFR 60 Subpart 61 FF National Emission Standard for Benzene Waste Operations
- 6) 40 CFR 60 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
- 7) 40 CFR 63 Subpart ZZZZ National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines



8) 6 NYCRR Part 201-7.1 governs facility-wide emission limits (addressed in DEC ID 9-2911-00112/00234) for Total HAPs, perchloroethylene, hexachlorocyclopentadiene, and hydrogen chloride to cap the facility out of major status for the applicability of 40 CFR 63 Subpart FFFF. The following is a list of Emission Units that contribute to each emission cap:

Total HAPs

Permit 233: B-00002, C-00001, C-00006, E-00001, J-00001, Z-00002, Z-00003, Z-00004  
Permit 234: A-00002, A-00003, A-00009, D-00002, F-00001, M-00002, M-00003.

The individual HAPs which contribute to total HAP emissions include the three HAPs for which individual caps are included in this permit (perchloroethylene, hexachlorocyclopentadiene, and hydrogen chloride) as well as other HAPs for which potential emissions are below the individual 10 tons/year threshold (including but not limited to chlorine, asbestos, benzene, hydrogen fluoride, and lead).

Perchloroethylene

Permit 233: Z-00003  
Permit 234: A-00002, A-00003, D-00002, M-00002, M-00003.

Hexachlorocyclopentadiene

Permit 233: Z-00003  
Permit 234: A-00002, A-00003, D-00002, M-00002, M-00003.

Hydrogen Chloride

Permit 233: B-00002, C-00001, C-00006, E-00001, Z-00002, Z-00003  
Permit 234: A-00003, F-00001.

HCl emissions from Permit 234 sources are minor and are tracked for EU F-00001 - "F" Area Ground Water Storage and Treatment System through records of quantities and chemical analyses of groundwater that is processed and for EU A-00003 - Portable/Semi-Permanent Vacuum Units through records of material processed. HCl emissions from Permit 233 sources associated with the HCl Synthesis Unit (Emission Units C-00006 and E-00001) are primarily limited by the control efficiency and emission rate limitations of the "C" Area, "E" Area and Tails Tower Scrubbers as well as the "E" Area loading and unloading limit of 163,000 tons per year of acid as specified in permit conditions cited under 6 NYCRR Part 212.9(b). Additional permit conditions address specific operating requirements for these scrubbers, as well as for existing scrubbers in Emission Units B-00002 and C-00001. Scrubber liquor characteristics such as temperature, specific gravity, and concentration, and operating parameters such as scrubber liquor flow rate and pump pressure are monitored and adjusted as needed to maintain operation within established ranges. The facility implements an extensive program of standard operating and maintenance procedures to ensure permit compliance. Compliance with these conditions and procedures ensures that the 9.9 tons per year emissions cap is not exceeded.

The facility has submitted a Notification of Non-Applicability for 40 CFR 63 Subpart VVVVVV, National Emissions Standards for Hazardous Air Pollutants Area Source Standards for Chemical Manufacturing, by letter dated August 20, 2012. In February 2012 they had determined they were subject to certain requirements due to their use of nickel chloride, a catalyst which triggered rule applicability, and submitted an initial notification. Since February 2012 the facility has successfully eliminated this catalyst from their process and is no longer subject to the rule.



By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator:            DOUGLAS E BORSCHEL  
   270 MICHIGAN AVE  
   BUFFALO, NY 14203-2915

Authorized Signature: \_\_\_\_\_ Date: \_\_\_ / \_\_\_ / \_\_\_\_\_



**Notification of Other State Permittee Obligations**

**Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification**

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the compliance permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in any compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

**Item B: Permittee's Contractors to Comply with Permit**

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

**Item C: Permittee Responsible for Obtaining Other Required Permits**

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

**Item D: No Right to Trespass or Interfere with Riparian Rights**

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



**LIST OF CONDITIONS**

**DEC GENERAL CONDITIONS**

**General Provisions**

- Facility Inspection by the Department
- Relationship of this Permit to Other Department Orders and Determinations
- Applications for permit renewals, modifications and transfers
- Permit modifications, suspensions or revocations by the Department

**Facility Level**

- Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS



**DEC GENERAL CONDITIONS**

**\*\*\*\* General Provisions \*\*\*\***

**For the purpose of your Title V permit, the following section contains state-only enforceable terms and conditions.**

**GENERAL CONDITIONS - Apply to ALL Authorized Permits.**

**Condition 1: Facility Inspection by the Department**

**Applicable State Requirement: ECL 19-0305**

**Item 1.1:**

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

**Item 1.2:**

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

**Item 1.3:**

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

**Condition 2: Relationship of this Permit to Other Department Orders and Determinations**

**Applicable State Requirement: ECL 3-0301 (2) (m)**

**Item 2.1:**

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

**Condition 3: Applications for permit renewals, modifications and transfers**

**Applicable State Requirement: 6 NYCRR 621.11**

**Item 3.1:**

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

**Item 3.2:**

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

**Item 3.3:**

Permits are transferrable with the approval of the department unless specifically prohibited by



the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

**Condition 4: Permit modifications, suspensions or revocations by the Department**  
**Applicable State Requirement: 6 NYCRR 621.13**

**Item 4.1:**

The Department reserves the right to exercise all available authority to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

**\*\*\*\* Facility Level \*\*\*\***

**Condition 5: Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS**  
**Applicable State Requirement: 6 NYCRR 621.6 (a)**

**Item 5.1:**

Submission of applications for permit modification or renewal are to be submitted to:  
NYSDEC Regional Permit Administrator  
Region 9 Headquarters  
Division of Environmental Permits  
270 Michigan Avenue  
Buffalo, NY 14203-2915  
(716) 851-7165



**New York State Department of Environmental Conservation**

Permit ID: 9-2911-00112/00233

Facility DEC ID: 9291100112



**Permit Under the Environmental Conservation Law (ECL)**

**ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT**

**IDENTIFICATION INFORMATION**

Permit Issued To: OCCIDENTAL CHEMICAL CORP  
5005 LBJ FREEWAY  
DALLAS, TX 75244

Facility: OCCIDENTAL CHEMICAL CORP - NIAGARA PLANT  
BUFFALO AVE AND 47TH ST  
NIAGARA FALLS, NY 14302-0344

Authorized Activity By Standard Industrial Classification Code:  
2812 - ALKALIES AND CHLORINE  
2819 - INDUSTRIAL INORGANIC CHEMICALS  
2869 - INDUSTRIAL ORGANIC CHEMICALS, NEC

Permit Effective Date: 03/14/2014

Permit Expiration Date: 03/13/2019



## LIST OF CONDITIONS

### FEDERALLY ENFORCEABLE CONDITIONS

#### Facility Level

- 1 6 NYCRR 200.6: Acceptable Ambient Air Quality
- 2 6 NYCRR 201-6.4 (a) (7): Fees
- 3 6 NYCRR 201-6.4 (c): Recordkeeping and Reporting of Compliance Monitoring
- 4 6 NYCRR 201-6.4 (c) (2): Records of Monitoring, Sampling, and Measurement
- 5 6 NYCRR 201-6.4 (c) (3) (ii): Compliance Certification
- 6 6 NYCRR 201-6.4 (e): Compliance Certification
- 7 6 NYCRR 202-2.1: Compliance Certification
- 8 6 NYCRR 202-2.5: Recordkeeping requirements
- 9 6 NYCRR 215.2: Open Fires - Prohibitions
- 10 6 NYCRR 200.7: Maintenance of Equipment
- 11 6 NYCRR 201-1.7: Recycling and Salvage
- 12 6 NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 13 6 NYCRR 201-3.2 (a): Exempt Sources - Proof of Eligibility
- 14 6 NYCRR 201-3.3 (a): Trivial Sources - Proof of Eligibility
- 15 6 NYCRR 201-6.4 (a) (4): Requirement to Provide Information
- 16 6 NYCRR 201-6.4 (a) (8): Right to Inspect
- 17 6 NYCRR 201-6.4 (f) (6): Off Permit Changes
- 18 6 NYCRR 202-1.1: Required Emissions Tests
- 19 40 CFR Part 68: Accidental release provisions.
- 20 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 21 6 NYCRR Subpart 201-6: Emission Unit Definition
- 22 6 NYCRR Subpart 201-6: Compliance Certification
- 23 6 NYCRR 201-6.4 (d) (4): Progress Reports Due Semiannually
- 24 6 NYCRR 211.1: Air pollution prohibited
- 25 6 NYCRR 212.6 (a): Compliance Certification
- 26 6 NYCRR 212.9 (b): Compliance Certification
- 27 6 NYCRR 212.9 (b): Compliance Certification
- 28 40CFR 61, NESHAP Subpart A: Compliance Certification
- 29 40CFR 61, NESHAP Subpart FF: Compliance Certification
- 30 40CFR 68.10(d), Subpart A: Program 3 - applicability
- 31 40CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC)
- 32 40CFR 82, Subpart G: Significant New Alternatives Policy Program

#### Emission Unit Level

- 33 6 NYCRR Subpart 201-6: Emission Point Definition By Emission Unit
- 34 6 NYCRR Subpart 201-6: Process Definition By Emission Unit

#### EU=B-00001

- 35 6 NYCRR 212.4 (c): Compliance Certification

#### EU=B-00002,Proc=B02

- 36 6 NYCRR 212.9 (b): Compliance Certification

#### EU=B-00002,Proc=B03



37 6 NYCRR 212.9 (b): Compliance Certification

**EU=B-00003,Proc=B04**

38 6 NYCRR 229.3 (e) (2) (v): Compliance Certification

**EU=B-00003,Proc=B05**

39 6 NYCRR 212.9 (b): Compliance Certification

**EU=C-00001**

40 6 NYCRR Subpart 201-6: Compliance Certification

41 40CFR 60, NSPS Subpart A: Compliance Certification

42 40CFR 60, NSPS Subpart IIII: Compliance Certification

43 40CFR 63, Subpart ZZZZ: Compliance Certification

**EU=C-00001,EP=C0612,Proc=C01**

44 6 NYCRR 212.9 (b): Compliance Certification

**EU=C-00001,EP=C0613,Proc=C02**

45 6 NYCRR 212.9 (b): Compliance Certification

**EU=C-00001,EP=C3101,Proc=C03**

46 6 NYCRR 212.9 (b): Compliance Certification

**EU=C-00001,EP=C3102,Proc=C04**

47 6 NYCRR 212.9 (b): Compliance Certification

**EU=C-00001,EP=C3410,Proc=C05**

48 6 NYCRR 212.9 (b): Compliance Certification

**EU=C-00006,EP=C5101,Proc=C25,ES=C2503**

49 6 NYCRR 212.9 (b): Compliance Certification

50 6 NYCRR 212.9 (b): Compliance Certification

51 6 NYCRR 212.9 (b): Compliance Certification

**EU=C-00006,EP=C5102,Proc=C26,ES=C2607**

52 6 NYCRR 212.9 (b): Compliance Certification

53 6 NYCRR 212.9 (b): Compliance Certification

54 6 NYCRR 212.9 (b): Compliance Certification

**EU=E-00001**

55 6 NYCRR 212.9 (b): Compliance Certification

56 6 NYCRR 212.9 (b): Compliance Certification

57 6 NYCRR 212.9 (b): Compliance Certification

58 6 NYCRR 212.9 (b): Compliance Certification

59 6 NYCRR 212.9 (b): Compliance Certification

**EU=H-00001,EP=H2401,Proc=H01**

60 6 NYCRR 212.4 (c): Compliance Certification

**EU=H-00001,EP=H2402,Proc=H02**

61 6 NYCRR 212.4 (c): Compliance Certification

**New York State Department of Environmental Conservation**

Permit ID: 9-2911-00112/00233

Facility DEC ID: 9291100112



**EU=H-00001,EP=H2403,Proc=H02**

62 6 NYCRR 212.4 (c): Compliance Certification

**EU=J-00001**

63 40CFR 61, NESHAP Subpart M: Compliance Certification

**STATE ONLY ENFORCEABLE CONDITIONS**

**Facility Level**

64 ECL 19-0301: Contaminant List

65 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities

66 6 NYCRR 211.2: Visible Emissions Limited

67 6 NYCRR 211.2: Compliance Demonstration

**Emission Unit Level**

**EU=C-00006,EP=C5103,Proc=C25,ES=C2505**

68 6 NYCRR 201-1.4: Compliance Demonstration



**FEDERALLY ENFORCEABLE CONDITIONS**  
**\*\*\*\* Facility Level \*\*\*\***

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**  
**The items listed below are not subject to the annual compliance certification requirements under Title V. Permittees may also have other obligations under regulations of general applicability.**

**Item A: Emergency Defense - 6 NYCRR 201-1.5**

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the facility owner or operator can identify the cause(s) of the emergency;

(2) The equipment at the permitted facility causing the emergency was at the time being properly operated and maintained;

(3) During the period of the emergency the facility owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) The facility owner or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

**Item B: Public Access to Recordkeeping for Title V Facilities - 6 NYCRR 201-1.10 (b)**

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6 NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.



**Item C: Timely Application for the Renewal of Title V Permits - 6 NYCRR 201-6.2 (a) (4)**

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

**Item D: Certification by a Responsible Official - 6 NYCRR 201-6.2 (d) (12)**

Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

**Item E: Requirement to Comply With All Conditions - 6 NYCRR 201-6.4 (a) (2)**

The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

**Item F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR 201-6.4 (a) (3)**

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

**Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 201-6.4 (a) (5)**

It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

**Item H: Property Rights - 6 NYCRR 201-6.4 (a) (6)**

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



**Item I: Severability - 6 NYCRR 201-6.4 (a) (9)**

If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

**Item J: Permit Shield - 6 NYCRR 201-6.4 (g)**

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

**Item K: Reopening for Cause - 6 NYCRR 201-6.4 (i)**

This Title V permit shall be reopened and revised under any of the following circumstances:

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is



three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

**Item L: Permit Exclusion - ECL 19-0305**

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York





(NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

**Item M: Federally Enforceable Requirements - 40 CFR 70.6 (b)**  
All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS  
SUBJECT TO ANNUAL CERTIFICATIONS AT ALL TIMES**

**The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements at all times.**

**Condition 1: Acceptable Ambient Air Quality**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 200.6**

**Item 1.1:**

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

**Condition 2: Fees**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (7)**

**Item 2.1:**

The owner and/or operator of a stationary source shall pay fees to the Department consistent with the fee schedule authorized by ECL 72-0303.

**Condition 3: Recordkeeping and Reporting of Compliance Monitoring**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (c)**



**Item 3.1:**

The following information must be included in any required compliance monitoring records and reports:

- (i) The date, place, and time of sampling or measurements;
- (ii) The date(s) analyses were performed;
- (iii) The company or entity that performed the analyses;
- (iv) The analytical techniques or methods used including quality assurance and quality control procedures if required;
- (v) The results of such analyses including quality assurance data where required; and
- (vi) The operating conditions as existing at the time of sampling or measurement.

Any deviation from permit requirements must be clearly identified in all records and reports. Reports must be certified by a responsible official, consistent with Section 201-6.2 of Part 201.

**Condition 4: Records of Monitoring, Sampling, and Measurement  
Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement: 6 NYCRR 201-6.4 (c) (2)**

**Item 4.1:**

Compliance monitoring and recordkeeping shall be conducted according to the terms and conditions contained in this permit and shall follow all quality assurance requirements found in applicable regulations. Records of all monitoring data and support information must be retained for a period of at least 5 years from the date of the monitoring, sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

**Condition 5: Compliance Certification  
Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement: 6 NYCRR 201-6.4 (c) (3) (ii)**

**Item 5.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 5.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

To meet the requirements of this facility permit with respect to reporting, the permittee must:



Submit reports of any required monitoring at a minimum frequency of every 6 months, based on a calendar year reporting schedule. These reports shall be submitted to the Department within 30 days after the end of a reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the responsible official for this facility.

Notify the Department and report permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations shall be submitted to the permitting authority based on the following schedule:

- (1) For emissions of a hazardous air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
- (2) For emissions of any regulated air pollutant, excluding those listed in paragraph (1) of this section, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
- (3) For all other deviations from permit requirements, the report shall be contained in the 6 month monitoring report required above.
- (4) This permit may contain a more stringent reporting requirement than required by paragraphs (1), (2) or (3) above. If more stringent reporting requirements have been placed in this permit or exist in applicable requirements that apply to this facility, the more stringent reporting requirement shall apply.

If above paragraphs (1) or (2) are met, the source must notify the permitting authority by telephone during normal business hours at the Regional Office of jurisdiction for this permit, attention Regional Air Pollution Control Engineer (RAPCE) according to the timetable listed in paragraphs (1) and (2) of this section. For deviations and incidences that must be reported outside of normal business hours, on weekends, or holidays, the DEC Spill



Hotline phone number at 1-800-457-7362 shall be used. A written notice, certified by a responsible official consistent with 6 NYCRR Part 201-6.2(d)(12), must be submitted within 10 working days of an occurrence for deviations reported under (1) and (2). All deviations reported under paragraphs (1) and (2) of this section must also be identified in the 6 month monitoring report required above.

The provisions of 6 NYCRR 201-1.4 shall apply if the permittee seeks to have a violation excused unless otherwise limited by regulation. In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets. Notwithstanding any recordkeeping and reporting requirements in 6 NYCRR 201-1.4, reports of any deviations shall not be on a less frequent basis than the reporting periods described in paragraphs (1) and (4) above.

In the case of any condition contained in this permit with a reporting requirement of "Upon request by regulatory agency" the permittee shall include in the semiannual report, a statement for each such condition that the monitoring or recordkeeping was performed as required or requested and a listing of all instances of deviations from these requirements.

In the case of any emission testing performed during the previous six month reporting period, either due to a request by the Department, EPA, or a regulatory requirement, the permittee shall include in the semiannual report a summary of the testing results and shall indicate whether or not the Department or EPA has approved the results.

All semiannual reports shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office). Mailing addresses for the above referenced persons are contained in the monitoring condition for 6 NYCRR Part 201-6.4(e), contained elsewhere in this permit.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).



**Condition 6: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement: 6 NYCRR 201-6.4 (e)**

**Item 6.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 6.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Requirements for compliance certifications with terms and conditions contained in this facility permit include the following:

- i. Compliance certifications shall contain:
  - the identification of each term or condition of the permit that is the basis of the certification;
  - the compliance status;
  - whether compliance was continuous or intermittent;
  - the method(s) used for determining the compliance status of the facility, currently and over the reporting period consistent with the monitoring and related recordkeeping and reporting requirements of this permit;
  - such other facts as the Department may require to determine the compliance status of the facility as specified in any special permit terms or conditions; and
  - such additional requirements as may be specified elsewhere in this permit related to compliance certification.
- ii. The responsible official must include in the annual certification report all terms and conditions contained in this permit which are identified as being subject to certification, including emission limitations, standards, or work practices. That is, the provisions labeled herein as "Compliance Certification" are not the only provisions of this permit for which an annual certification is required.
- iii. Compliance certifications shall be submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department.

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Permit ID: 9-2911-00112/00233

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iv. All compliance certifications shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office). Please send annual compliance certifications to Chief of the Stationary Source Compliance Section, the Region 2 EPA representative for the Administrator, at the following address:

USEPA Region 2  
Air Compliance Branch  
290 Broadway  
New York, NY 10007-1866

The address for the RAPCE is as follows:

NYSDEC Region 9 Headquarters  
270 Michigan Avenue  
Buffalo, NY 14203-2915

The address for the BQA is as follows:

NYSDEC  
Bureau of Quality Assurance  
625 Broadway  
Albany, NY 12233-3258

Monitoring Frequency: ANNUALLY  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2015.  
Subsequent reports are due on the same day each year

**Condition 7: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 202-2.1**

**Item 7.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 7.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:

Emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year.

Monitoring Frequency: ANNUALLY



Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due by April 15th for previous calendar year

**Condition 8: Recordkeeping requirements**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 202-2.5**

**Item 8.1:**

(a) The following records shall be maintained for at least five years:

- (1) a copy of each emission statement submitted to the department; and
- (2) records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used.

(b) These records shall be made available at the facility to the representatives of the department upon request during normal business hours.

**Condition 9: Open Fires - Prohibitions**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 215.2**

**Item 9.1:**

Except as allowed by Title 6 NYCRR Section 215.3, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

**Item 9.2**

Per Section 215.3, burning in an open fire, provided it is not contrary to other law or regulation, will be allowed as follows:

- (a) On-site burning in any town with a total population less than 20,000 of downed limbs and branches (including branches with attached leaves or needles) less than six inches in diameter and eight feet in length between May 15th and the following March 15th. For the purposes of this subdivision, the total population of a town shall include the population of any village or portion thereof located within the town. However, this subdivision shall not be construed to allow burning within any village.
- (b) Barbecue grills, maple sugar arches and similar outdoor cooking devices when actually used for cooking or processing food.
- (c) Small fires used for cooking and camp fires provided that only charcoal or untreated wood is used as fuel and the fire is not left unattended until extinguished.
- (d) On-site burning of agricultural wastes as part of a valid agricultural operation on contiguous agricultural lands larger than five acres actively devoted to agricultural or horticultural use, provided such waste is actually grown or generated on those lands and such waste is capable of being fully burned within a 24-hour period.
- (e) The use of liquid petroleum fueled smudge pots to prevent frost damage to crops.
- (f) Ceremonial or celebratory bonfires where not otherwise prohibited by law, provided that only untreated wood or other agricultural products are used as fuel and the fire is not left unattended until extinguished.
- (g) Small fires that are used to dispose of a flag or religious item, and small fires or other smoke producing process where not otherwise prohibited by law that are used in connection with a religious ceremony.



- (h) Burning on an emergency basis of explosive or other dangerous or contraband materials by police or other public safety organization.
- (i) Prescribed burns performed according to Part 194 of this Title.
- (j) Fire training, including firefighting, fire rescue, and fire/arson investigation training, performed under applicable rules and guidelines of the New York State Department of State's Office of Fire Prevention and Control. For fire training performed on acquired structures, the structures must be emptied and stripped of any material that is toxic, hazardous or likely to emit toxic smoke (such as asbestos, asphalt shingles and vinyl siding or other vinyl products) prior to burning and must be at least 300 feet from other occupied structures. No more than one structure per lot or within a 300 foot radius (whichever is bigger) may be burned in a training exercise.
- (k) Individual open fires as approved by the Director of the Division of Air Resources as may be required in response to an outbreak of a plant or animal disease upon request by the commissioner of the Department of Agriculture and Markets, or for the destruction of invasive plant and insect species.
- (l) Individual open fires that are otherwise authorized under the environmental conservation law, or by rule or regulation of the Department.

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS  
SUBJECT TO ANNUAL CERTIFICATIONS ONLY IF APPLICABLE**

**The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements only if effectuated during the reporting period.**

**[NOTE: The corresponding annual compliance certification for those conditions not effectuated during the reporting period shall be specified as "not applicable".]**

**Condition 10: Maintenance of Equipment**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 200.7**

**Item 10.1:**

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications, required to operate such device effectively.

**Condition 11: Recycling and Salvage**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 201-1.7**

**Item 11.1:**

Where practical, the owner or operator of an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of the ECL.

**Condition 12: Prohibition of Reintroduction of Collected Contaminants to the air**





**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 201-1.8**

**Item 12.1:**

No person shall unnecessarily remove, handle or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

**Condition 13: Exempt Sources - Proof of Eligibility**

**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 201-3.2 (a)**

**Item 13.1:**

The owner or operator of an emission source or activity that is listed as being exempt may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all records necessary for demonstrating compliance with this Subpart on-site for a period of five years, and make them available to representatives of the department upon request.

**Condition 14: Trivial Sources - Proof of Eligibility**

**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 201-3.3 (a)**

**Item 14.1:**

The owner or operator of an emission source or activity that is listed as being trivial in this Section may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request.

**Condition 15: Requirement to Provide Information**

**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (4)**

**Item 15.1:**

The owner and/or operator shall furnish to the department, within a reasonable time, any information that the department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the administrator along with a claim of confidentiality, if the administrator initiated the request for information or otherwise has need of it.

**Condition 16: Right to Inspect**

**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (8)**



**Item 16.1:**

The department or an authorized representative shall be allowed upon presentation of credentials and other documents as may be required by law to:

(i) enter upon the permittee's premises where a facility subject to the permitting requirements of this Subpart is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(ii) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(iii) inspect at reasonable times any emission sources, equipment (including monitoring and air pollution control equipment), practices, and operations regulated or required under the permit; and

(iv) sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

**Condition 17: Off Permit Changes**

**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (f) (6)**

**Item 17.1:**

No permit revision will be required for operating changes that contravene an express permit term, provided that such changes would not violate applicable requirements as defined under this Part or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting, or compliance certification permit terms and conditions. Such changes may be made without requiring a permit revision, if the changes are not modifications under any provision of title I of the act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions) provided that the facility provides the administrator and the department with written notification as required below in advance of the proposed changes within a minimum of seven days. The facility owner or operator, and the department shall attach each such notice to their copy of the relevant permit.

(i) For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

(ii) The permit shield described in section 6 NYCRR 201-6.4 shall not apply to any change made pursuant to this paragraph.

**Condition 18: Required Emissions Tests**

**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 202-1.1**

**Item 18.1:**

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For the purpose of ascertaining compliance or non-compliance with any air pollution control code, rule or regulation, the commissioner may require the person who owns such air contamination source to submit an acceptable report of measured emissions within a stated time.

**Condition 19: Accidental release provisions.**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:40 CFR Part 68**

**Item 19.1:**

If a chemical is listed in Tables 1,2,3 or 4 of 40 CFR §68.130 is present in a process in quantities greater than the threshold quantity listed in Tables 1,2,3 or 4, the following requirements will apply:

- a) The owner or operator shall comply with the provisions of 40 CFR Part 68 and;
- b) The owner or operator shall submit at the time of permit issuance (if not previously submitted) one of the following, if such quantities are present:
  - 1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR §68.10(a) or,
  - 2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan. Information should be submitted to:

Risk Management Plan Reporting Center  
C/O CSC  
8400 Corporate Dr  
Carrollton, Md. 20785

**Condition 20: Recycling and Emissions Reduction**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:40CFR 82, Subpart F**

**Item 20.1:**

The permittee shall comply with all applicable provisions of 40 CFR Part 82.

**The following conditions are subject to annual compliance certification requirements for Title V permits only.**

**Condition 21: Emission Unit Definition**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**



**Item 21.1:**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: B-00001

Emission Unit Description:

**Chlor-Alkali Hydrogen Vents**

Hydrogen is produced by the electrolysis of brine in the No. 1 and No. 2 cell rooms using H4 diaphragm cells. Heat from the hydrogen is used to warm the incoming brine. The hydrogen cooler is a direct contact spray tower (Note: Brine is sprayed directly into the hot hydrogen stream). Under normal operation, the hydrogen is compressed and piped to local manufacturers. Hydrogen is also consumed in the facility's new HCl Acid Synthesis process in EU C-00006. The hydrogen that can not be consumed is automatically vented through the hydrogen vent EPBR001.

Additional hydrogen venting can also occur as follows:

- 1) EP-B2405 and EP-B1801 (No.1 and No.2 compressor automatic hydrogen vents): Hydrogen vents through an automatic valve at the discharge of each compressor to maintain pressure and avoid pressure increase that could overload a compressor motor or a pressure decrease that would draw in air;
- 2) EP-B2402 and EP-B2403 (No. 1 Cell Room seal vent stacks) : The hydrogen gas stream is maintained at a slight positive pressure to prevent influx of air. If excessive pressure is reached in the hydrogen discharge piping from the cells, the water or brine seal will blow and hydrogen will be vented to the atmosphere;
- 3) EPB2503 (No. 2 cell room seal vent stack): The hydrogen gas stream is maintained at a slight positive pressure to prevent influx of air. If excessive pressure is reached in the hydrogen discharge piping from the cells, the water or brine seal will blow and hydrogen will be vented to the atmosphere;
- 4) EP-B2404 and EP-B2504 (No. 1 and No. 2 Cell Room low pressure hydrogen vents): Low pressure hydrogen vents are utilized to vent hydrogen that cannot be handled by the process (Note: Normally about 5 percent of production). Hydrogen is vented when the hydrogen cooling/compression system is down for maintenance, startup or shutdown.

Notes:

- 1) Hydrogen emissions are trivial activities per 6 NYCRR Part 201-3.3(c)(94).
- 2) A negligible amount of sodium chloride/sodium hydroxide is entrained as particulates with the hydrogen gas.

Building(s): B18  
B24  
B25



N OF A3

**Item 21.2:**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: B-00002

Emission Unit Description:

Chlor-Alkali Process Acid Storage Tanks

The chlor-alkali process utilizes both sulfuric acid and aqueous hydrochloric acid. The sulfuric acid (98%), used for chlorine drying, is delivered to the plant in bulk shipments. During filling of the plant storage tanks, displaced air is emitted to the atmosphere. No provisions are provided for controlling these intermittent emissions.

Aqueous Hydrochloric Acid (<37%) is utilized to neutralize excess NaOH and Na<sub>2</sub>CO<sub>3</sub> in the cell feed brine, and brine sludge acidification to remove Na<sub>2</sub>SO<sub>4</sub> and recover CO<sub>2</sub>. Dilute HCl is used to clean cell parts. This acid is either produced at the Niagara Plant or shipped in from offsite and is transferred into Chlor-Alkali storage tanks as required. Tank vents are routed to the cell liquor sump where a spray of cell liquor (NaOH and NaCl) is utilized to scrub out and neutralize any HCl contained in the gas stream.

Building(s): B25

N OF B19

**Item 21.3:**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: B-00003

Emission Unit Description:

Chlor-Alkali Process Miscellaneous

This emission unit contains emission points, emission sources, and processes which support the Chlor-Alkali Process but are not part of the five main chlor-alkali production emission units (B-00001, B-00002, C-00001, H-00001, and J-00001). Process B04 encompasses the chlorine liquefaction refrigeration systems and the associated OXSOL coolant storage tank. Process B05 encompasses the caustic concentration, purification and storage systems which handle the cell liquor resulting from the electrolysis of brine. Cell liquor at 12-15% NaOH is evaporated to 50% and stored in a series of tanks.

Building(s): B19

**Item 21.4:**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: C-00001



Emission Unit Description:

"C" Area Chlor-Alkali Process Scrubbers

The "C" Area Chlor-Alkali process scrubbers are utilized to scrub out and neutralize chlorine contained in the off gas vent streams from several sources within the No. 1 and No. 2 Chlor-Alkali Process Cell Rooms. These vents include the following:

- 1) Vent gas from No. 1 and No. 2 chlorine liquefaction facilities
- 2) Vent from waste sulfuric acid storage tanks
- 3) Blow down from tank car unloading facilities
- 4) Off gas from bleach reactor and vent from bleach storage tank
- 5) Off gases from purging equipment involved with chlorine handling systems prior to implementing maintenance procedures
- 6) Emergency chlorine header seal blow vents from No. 1 and No. 2 Circuits (B Area)

The emission points contained in this emission unit include the following:

- 1) C0612: Scrubbed gases from the sparge tanks, waste sulfuric acid trailer loading system, and the waste sulfuric acid storage tanks vents which are tied into a spray tower (West After Scrubber). The spray tower removes any chlorine that may have passed through the sparge tanks. Emissions from the trailer and acid tanks are negligible. This system operates in conjunction with emission point C3101.
- 2) C3101: Scrubbed gases from the sparge tanks, one bleach reactor, and one bleach storage tank are passed through a spray tower (East After Scrubber). The spray tower removes any chlorine that may have passed through the sparge tanks or is vented from the bleach reactor or storage tank. This system operates in conjunction with emission point C0612.
- 3) C3410: This vent is the exit from a vent scrubber (Cell Brine Head Tank Scrubber) that is scrubbing CO<sub>2</sub>, HCl and Cl<sub>2</sub> gases from the brine head tank vent. Alkaline sodium chloride brine is the scrubbing liquid. Alkaline brine contact removes the CO<sub>2</sub> and a small amount of HCl and Cl<sub>2</sub>. The scrubber liquid is returned to the process.
- 4) C0613 (No. 1 EVS) and C3102 (No. 2 EVS): Emergency scrubbers for No.1 and No. 2 Chlorine header seal blows.

It should be noted that the tanks associated with emission points C0612 and C3101 are interchangeable and the process can operate with one After Scrubber (East or West) (caustic scrubbers associated with these emission points) down for maintenance.



Two emergency generators (ES-C0204 and ES-C0404) provide backup power for the Circuits No. 1 and 2 Header Seal Emergency Scrubbers.

Building(s): B33A  
C50A  
NEAR C31  
NEAR C6  
S OF C39

**Item 21.5:**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: C-00006

Emission Unit Description:

HCl Acid Synthesis and Storage Unit

HCl Acid Synthesis and Storage unit consists of a Chlorine Vaporizer, an HCl Combustion Unit with integrated Acid Absorber, and a Tails Tower. HCl (hydrogen chloride) is produced by the combustion of chlorine (Cl<sub>2</sub>) and hydrogen (H<sub>2</sub>) gas. An excess of approximately 15% H<sub>2</sub> is used to insure that all the chlorine is consumed. The combustion unit is immediately followed by an integrated acid absorbing unit. The acid absorber uses weak acid from both the tails tower and the storage tank scrubbers as the absorbing medium, producing 163,000 tons per year of 35.2% HCl. Following the absorber, the excess H<sub>2</sub> is vented to the atmosphere through the Tails Tower, a packed tower scrubber, that will reduce the emissions of HCl.

The 35.2% acid will be collected in a 1700 gallon pump tank and then transferred to one of two 55,000 gallon proof tanks. The product will be held in the proof tanks for concentration adjustment and quality checks. Acid will then be transferred to the two 210,000 gallon product storage tanks before loading and shipping. All the vessels in the HCl synthesis and storage unit are vented to packed tower scrubbers for acid gas control.

Potential annual hydrogen chloride emissions associated with the HCl Acid Synthesis Project are primarily due to the Tails Tower Vent, the "C" Scrubber, and the "E" Scrubber. Controlled annual potential emissions, based on 99.5% scrubber efficiency and 8,760 hours of operation per year, are 4.2 tons.

Building(s): C51

**Item 21.6:**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: E-00001

Emission Unit Description:



HCl Acid Scrubber Vent

A scrubber (packed tower) is utilized to remove hydrogen chloride from contaminated vapor generated by the HCl storage and unloading operations. Emission sources include the following:

- 1) Two (30,000 gallon each) Hydrochloric Acid (<37%) storage tanks,
- 2) Four Hydrochloric Acid tank car loading hoods,
- 3) Two Hydrochloric Acid tank trailer loading hoods.

The circulating scrubber liquid is a weak solution of Hydrochloric Acid (up to 20% weight percent HCl, specific gravity 1.1).

Building(s): E2

**Item 21.7:**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: H-00001

Emission Unit Description:

"H" Area Chlor-Alkali Process Scrubbers

Cell liquor, produced by the diaphragm cell electrolysis of the brine, typically is a 12-15 percent solution of sodium hydroxide and contains, roughly, an equivalent amount of unreacted salt. During the caustic concentration process, salt crystallizes and is removed by primary centrifuges. The salt is reslurried with water for sulfate removal and the salt is separated by the secondary centrifuges.

Building(s): H24

**Item 21.8:**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: I-00001

Emission Unit Description:

Bulk Material Storage Building Ventilation System

Currently this building (T28) is used as a storage area for gypsum, product, raw material and equipment. Fans can be used to ventilate the building.

Building(s): T28

**Item 21.9:**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: J-00001

Emission Unit Description:

Chlor-Alkali Process Cell Construction

Diaphragms used in the electrolytic diaphragm cells have a limited life and must be renewed periodically. The cathode is stripped of the spent wet diaphragm asbestos by washing with high pressure water. The spent slurry is





filtered and the wet filter cake is sent off-site for disposal at a permitted industrial landfill. The cathode is then repaired and redeposited with an asbestos diaphragm.

The dry asbestos is unwrapped in a sealed glove box. The asbestos is then sucked into a vacuum mix tank using a vacuum compressor to completely wet the asbestos. A polymer is added to the slurry prior to its vacuum deposition onto a cathode. Any asbestos entrained in the exit line from the tank is either removed in the screen prior to the centrifugal compressor or in the water discharge from the compressor. The reconstituted diaphragm is placed in a natural gas fired oven to both dry and heat the polymer which binds the asbestos coating together.

Building(s): J13

**Condition 22: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 22.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 22.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The facility is authorized to perform regulated processes under this permit for:

1) Facility Refrigeration Systems - Emission Unit  
Z00001

Class I and Class II substances (e.g., R-12, R-22) are utilized as refrigerants in the facility's processing operations. Class I and Class II refrigerant emissions at the facility are primarily fugitive in nature and occur as incidental losses. The amounts of such emissions are estimated solely on the basis of material balances. Records maintained by the OxyChem personnel in conjunction with those provided by service contractors indicate the amount of refrigerant added to the various systems and the amounts recycled or recovered. The amounts of refrigerant added to the refrigeration systems are assumed to be equal to the amounts lost to the atmosphere.



OxyChem will comply with all the applicable requirements under 40CFR 82 (Stratospheric Ozone Depleting Substances).

This will include (as applicable) product labeling, maintenance, service, repair, and disposal of refrigerant containing equipment, appliances, and motor vehicles; leak repair requirements; and record keeping requirements for refrigerant purchased.

Buildings: Plantwide

2) Facility Fugitive Emissions - Emission Unit Z00002

The facility contains a variety of potential sources of fugitive emissions.

For purposes of emission inventory completeness, additional fugitive emissions resulting from various maintenance activities (equipment opening, welding, painting, sandblasting, degreasing, and chemical cleaning, etc.) and spills may be included in this emission unit. Also includes leaks from piping, refrigeration units, equipment, valves, connectors, compressors, pumps, portable scrubber tanks, rectifiers, back pressure, adsorbers, and other leaks of a fugitive nature.

Buildings: Plantwide

3) Transfer Operations - Emission Unit Z00003

The facility conducts transfer operations involving the transfer of compounds into or from a tank truck, rail car, or other portable container.

Buildings: Plantwide

4) Miscellaneous Exempt Combustion Sources - Emission Unit Z00004

The facility contains several combustion sources which are exempt from permitting. However, they are incorporated into the facility's emission inventory reporting requirements. Such sources include space heaters, ovens, small boiler, etc.

Buildings: Plantwide

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 23: Progress Reports Due Semiannually**



**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 201-6.4 (d) (4)**

**Item 23.1:**

Progress reports consistent with an applicable schedule of compliance are to be submitted at least semiannually, or at a more frequent period if specified in the applicable requirement or by the department. Such progress reports shall contain the following:

(i) dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

(ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

**Condition 24: Air pollution prohibited**

**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 211.1**

**Item 24.1:**

No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.

**Condition 25: Compliance Certification**

**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 212.6 (a)**

**Item 25.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 25.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

No person shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source, except only the emission of uncombined water. Compliance with this requirement shall be determined by the facility owner/operator conducting daily survey (non-method 9 observation, non-quantitative opacity reading) of visible emissions from facility operating sources. If any



atypical visible emissions are identified, corrective action is required as appropriate for the source. Records of daily survey of visible emissions must be retained for five years. The Department reserves the right to perform or require the performance of a Method 9 opacity evaluation by firm representative.

Emission points that must be visually inspected daily include:

Emission Pt.	Description
EP-B2502	HCl Storage Scrubber Vent
EP-C0612	West After Scrubber (formerly called West No. 1 EVS Junior)
EP-C3101	East After Scrubber (formerly called East No. 2 EVS Junior)
EP-C3410	Cell Brine Head Tank Scrubber
EP-C5101	Tails Tower Scrubber
EP-C5102	"C" Area Scrubber
EP-E2001	Hydrochloric Acid Scrubber
EP-H2401	Scrubber Vent from Salt Removal Process Tank Vents
EP-H2402	Scrubber Vent from Primary Centrifuges
EP-H2403	Scrubber Vent from Secondary Centrifuges

The following groups of emission points do NOT require visual daily inspection according to this permit condition for the reasons stated below.

The following emission points are already being monitored on a daily basis because of the Asbestos NESHAP, 40 CFR 61 Subpart M:

Emission Point	Description
EP-J1301	Happ Oven Vent
EP-J1304	Exhaust from Vacuum Compressor on Asbestos Mix Tank
EP-J1305	Oven Recirculation Fan Vent

The emission of hydrogen from the following emission points is exempt according to 6NYCRR 201-3.3, trivial activities.

Emission Point	Description
EP-BR001	H2 Return Vent
EP-B2402	No. 1 Cell Room H2 Seal Vent
EP-B2403	No. 1 Cell Room H2 Seal Vent
EP-B2404	No. 1 Cell Room Low Pressure H2 Vent
EP-B2405	No. 1 Compressor Automatic H2 Vent
EP-B2503	No. 2 Cell Room H2 Seal Vent
EP-B2504	No. 2 Cell Room Low Pressure H2 Vent

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EP-B1801 No. 2 Compressor Automatic H2 Vent

The following emission points are inorganic storage tanks that do not have the potential to emit a visual plume.

Emission Point	Description
EP-B1901	West No. 1 98% Sulfuric Acid Storage Tank Vent
EP-B1902	East No. 2 98% Sulfuric Acid Storage Tank Vent
EP-B0501	E008 North Cell Liquor Tank
EP-B0502	E009 Middle Cell Liquor Tank
EP-B0503	E010 South Cell Liquor Tank
EP-B0504	G001 Caustic Tank #174
EP-B0505	G002 Caustic Tank #173
EP-B0506	N060 Caustic Tank #601
EP-B0507	N076 Caustic Tank #602
EP-B0508	U022 Cell Liquor Tank

The following emission points are very minor sources.

Emission Point	Description
EP-10001	Vent from Bagged Gypsum Storage Building T-28
EP-L0201	Paint Booth
EP-B1903	OXSOL Surge Tank Vent
EP-C5103	Emergency Vent
EP-B33A1	Backup Generator
EP-C50A1	Backup Generator
EP-C0613	No. 1 EVS (Scrubber)
EP-C3102	No. 2 EVS (Scrubber)

Parameter Monitored: OPACITY  
 Upper Permit Limit: 20 percent  
 Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
 Averaging Method: 6-MINUTE AVERAGE (METHOD 9)  
 Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
 Reports due 30 days after the reporting period.  
 The initial report is due 7/30/2014.  
 Subsequent reports are due every 6 calendar month(s).

**Condition 26: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 212.9 (b)**

**Item 26.1:**  
 The Compliance Certification activity will be performed for the Facility.

**Item 26.2:**  
 Compliance Certification shall include the following monitoring:



Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The facility uses vacuum units to perform a variety of functions to ensure a safe and environmentally secure work place. Examples of these activities include the following:

- 1) Maintenance activities which require: a) fugitive emission control during a line break; evacuation of a vessel before entry; and/or, providing vacuum on a system.
- 2) Fugitive emission control during maintenance activities, process upset conditions, and sampling activities.
- 3) Material transfer operations (e.g. , residue drum loading, trailer loading) where industrial hygiene, odor or other environmental or safety concerns which require additional controls.
- 4) Emergency response for spills, line breaks, or leaks.

The truck-mounted units are exempt from permitting because they are portable.

However, some of the other units (e.g. trailer and skid-mounted units) may be used at a single plant location for an extended period of time. Furthermore, some of the utilities provided to the units need to be "hard piped" in order to meet facility safety requirements. As such, some units may be viewed as permanent air pollution control devices. The intention of this condition is to cover these units.

Before a vacuum unit is placed into service, a determination will be made as to (1) the type of unit which will be used and (2) the type and quantities of contaminants which may be vented to the unit. Examples of items which will be considered include:

- a) Should the vacuum unit be charged with water or caustic?
- b) Is a carbon bed necessary on the exhaust of the vacuum unit?

If caustic is used in the vacuum unit its concentration will be checked daily when in use. If the total alkalinity is less than 10 grams per liter, additional reagent will be added to adjust the concentration back into the appropriate range and/or the reagent will be



removed and the scrubber will be charged with fresh reagent. If carbon is used on the system, its discharge will be checked with a portable VOC instrument on a weekly basis for breakthrough. If the VOC reading is 50 ppm or greater, than the carbon vapor pack will be changed out.

The sampling records will be recorded, retained for five years and will be available for inspection when requested by the agency.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 27: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 212.9 (b)**

**Item 27.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: C-00001                      Emission Point: C0612

Emission Unit: C-00001                      Emission Point: C3101

Regulated Contaminant(s):

CAS No: 007782-50-5                      CHLORINE  
CAS No: 007647-01-0                      HYDROGEN CHLORIDE

**Item 27.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Performance tests of specified scrubbers which control hydrogen chloride and/or chlorine emissions from processes at the facility must be completed once during the term of the Title V permit. The facility shall submit a written plan for the performance tests to the Department within two years after issuance of the Title V permit renewal.

Scrubbers in Emission Units C-00006 and E-00001 which are associated with the HCl Synthesis Unit operations are addressed separately in emission unit level conditions included elsewhere in this permit and do not need to be



incorporated into this plan.

Control parameter operating limits shall be re-established during the performance tests. Control parameter data must be collected every 15 minutes during the entire period of the performance tests. Hourly averages of the parameters shall be used to re-establish the operating limits for the scrubber systems.

A performance test protocol shall be submitted to the Department for approval at least 60 days prior to the start of the test program. The Department must be notified at least 30 days prior to the scheduled test date so that a Department representative may be present during the test.

The results of the performance tests shall be submitted to the Department within 60 days following completion of the performance tests.

A review of the measured control parameters shall be submitted to the Department within 60 days following completion of the performance test. The review shall re-establish the operating and monitoring limits for each emission source.

A DAR-1 analysis and AERSCREEN or approved equivalent modeling evaluation shall be completed using the performance test emission results to determine the short-term and annual guidance impact levels.

If the operating and monitoring limits have changed based on the performance test and modeling analysis, the facility submit an application to the Department to update the permit to reflect the changes.

Performance testing will be required once per permit term.

Lower Permit Limit: 99.5 percent reduction

Reference Test Method: Per Department-approved methods

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 28: Compliance Certification**





Effective between the dates of 03/14/2014 and 03/13/2019

Applicable Federal Requirement:40CFR 61, NESHAP Subpart A

**Item 28.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 000071-43-2 BENZENE

CAS No: 001332-21-4 ASBESTOS

**Item 28.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

All applicable requirements of 40CFR Part 61 Subpart A  
-General Provisions apply to Occidental Chemical Corp.'s  
chlorine/caustic Chlor-Alkali Plant section due to the  
applicability of the standards of 40CFR Part 61 Subpart M  
- National Emissions Standards for Asbestos and 40CFR Part  
61 Subpart FF - National Emission Standards for Benzene  
Waste Operations.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 29: Compliance Certification**

Effective between the dates of 03/14/2014 and 03/13/2019

Applicable Federal Requirement:40CFR 61, NESHAP Subpart FF

**Item 29.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 000071-43-2 BENZENE

**Item 29.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The total annual benzene quantity in the process waste at  
the OXY Chlor-Alkali Plant is less than 1 Mg/yr (<2200  
lbs/ yr). Per 40CFR Part 61.355 (a)(5)(i) OXY will comply  
with the record keeping requirements of 40CFR Part 61.356



and the reporting requirements of 40CFR Part 61.357. Per 40CFR Part 61.355(a)(5)(ii), OXY will repeat the determination of total annual benzene quantity from the facility waste - whenever there is a change in the process(es) generating the waste(s) that could cause the total annual benzene quantity from the facility to increase to 1 Mg/yr or more. In the event that the total annual amount of benzene changes, the owner will be required to meet the appropriate requirement in 40CFR Part 61.355(a) that apply to that amount and notify the Administrator of the change in applicable requirements.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: ANNUAL TOTAL

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2015.

Subsequent reports are due every 12 calendar month(s).

**Condition 30: Program 3 - applicability**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:40CFR 68.10(d), Subpart A**

**Item 30.1:**

Program 3 eligibility requirements. A covered process is subject to Program 3 if the process does not meet the requirements of paragraph (b) of §68.10, and if either of the following conditions is met:

- (1) The process is in SIC code 2611, 2812, 2819, 2821, 2865, 2869, 2873, 2879, or 2911; or
- (2) The process is subject to the OSHA process safety management standard, 29 CFR 1910.119.

The New York State Department of Environmental Conservation is not implementing the Chemical Accident Prevention Program (Part 68). All questions and plan submittals should be sent to the US Environmental Protection Agency, Region 2, New York City.

**Condition 31: Servicing of Motor Vehicle Air Conditioners (MVAC)**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:40CFR 82, Subpart B**

**Item 31.1:**

If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used



on passenger buses using HCFC-22 refrigerant.

**Condition 32: Significant New Alternatives Policy Program**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:40CFR 82, Subpart G**

**Item 32.1:**

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program.

**\*\*\*\* Emission Unit Level \*\*\*\***

**Condition 33: Emission Point Definition By Emission Unit**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 33.1:**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: B-00001

Emission Point: B1801  
Height (ft.): 60 Diameter (in.): 6  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: B18

Emission Point: B2402  
Height (ft.): 65 Diameter (in.): 30  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: B24

Emission Point: B2403  
Height (ft.): 65 Diameter (in.): 30  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: B24

Emission Point: B2404  
Height (ft.): 65 Diameter (in.): 30  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: B24

Emission Point: B2405  
Height (ft.): 60 Diameter (in.): 8  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: B24

Emission Point: B2503  
Height (ft.): 65 Diameter (in.): 30  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: B25

Emission Point: B2504  
Height (ft.): 65 Diameter (in.): 30  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: B25

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Emission Point: BR001  
Height (ft.): 60 Diameter (in.): 10  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: N OF A3

**Item 33.2:**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: B-00002

Emission Point: B1901  
Height (ft.): 20 Diameter (in.): 3  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: N OF B19

Emission Point: B1902  
Height (ft.): 20 Diameter (in.): 3  
NYTMN (km.): 4777.9 NYTME (km.): 171.9 Building: N OF B19

Emission Point: B2502  
Height (ft.): 0 Diameter (in.): 4  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: B25

**Item 33.3:**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: B-00003

Emission Point: B0501  
Height (ft.): 53 Diameter (in.): 12  
NYTMN (km.): 4777.9 NYTME (km.): 171.1

Emission Point: B0502  
Height (ft.): 53 Diameter (in.): 12  
NYTMN (km.): 4777.9 NYTME (km.): 171.9

Emission Point: B0503  
Height (ft.): 53 Diameter (in.): 12  
NYTMN (km.): 4777.9 NYTME (km.): 171.1

Emission Point: B0504  
Height (ft.): 2 Diameter (in.): 2  
NYTMN (km.): 4777.9 NYTME (km.): 171.1

Emission Point: B0505  
Height (ft.): 2 Diameter (in.): 2  
NYTMN (km.): 4777.9 NYTME (km.): 171.1

Emission Point: B0506  
Height (ft.): 2 Diameter (in.): 6  
NYTMN (km.): 4777.9 NYTME (km.): 171.1

Emission Point: B0507



Height (ft.): 2 Diameter (in.): 8  
NYTMN (km.): 4777.9 NYTME (km.): 171.1

Emission Point: B0508  
Height (ft.): 52 Diameter (in.): 6  
NYTMN (km.): 4777.9 NYTME (km.): 171.1

Emission Point: B1903  
Height (ft.): 43 Diameter (in.): 2  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: B19

**Item 33.4:**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: C-00001

Emission Point: B33A1  
Height (ft.): 12 Diameter (in.): 6  
NYTMN (km.): 4777.567 NYTME (km.): 173.751 Building: B33A

Emission Point: C0612  
Height (ft.): 38 Diameter (in.): 42  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: NEAR C6

Emission Point: C0613  
Height (ft.): 53 Diameter (in.): 54  
NYTMN (km.): 4777.9 NYTME (km.): 171.1

Emission Point: C3101  
Height (ft.): 43 Diameter (in.): 36  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: NEAR C31

Emission Point: C3102  
Height (ft.): 53 Diameter (in.): 60  
NYTMN (km.): 4777.9 NYTME (km.): 171.1

Emission Point: C3410  
Height (ft.): 62 Diameter (in.): 12  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: S OF C39

Emission Point: C50A1  
Height (ft.): 12 Diameter (in.): 6  
NYTMN (km.): 4777.567 NYTME (km.): 173.751 Building: C50A

**Item 33.5:**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: C-00006

Emission Point: C5101  
Height (ft.): 103 Diameter (in.): 6  
NYTMN (km.): 4777.567 NYTME (km.): 173.751 Building: C51



Emission Point: C5102  
Height (ft.): 103 Diameter (in.): 4  
NYTMN (km.): 4777.567 NYTME (km.): 173.751 Building: C51

Emission Point: C5103  
Height (ft.): 20 Diameter (in.): 14  
NYTMN (km.): 4777.567 NYTME (km.): 173.751 Building: C51

**Item 33.6:**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: E-00001

Emission Point: E2001  
Height (ft.): 49 Diameter (in.): 10  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: E2

**Item 33.7:**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: H-00001

Emission Point: H2401  
Height (ft.): 83 Diameter (in.): 12  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: H24

Emission Point: H2402  
Height (ft.): 77 Diameter (in.): 10  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: H24

Emission Point: H2403  
Height (ft.): 77 Diameter (in.): 10  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: H24

**Item 33.8:**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: I-00001

Emission Point: I0001  
Height (ft.): 36 Length (in.): 33 Width (in.): 33  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: T28

**Item 33.9:**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: J-00001

Emission Point: J1301  
Height (ft.): 30 Diameter (in.): 12  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: J13



Emission Point: J1304  
Height (ft.): 28 Diameter (in.): 6  
NYTMN (km.): 4777.9 NYTME (km.): 173.6 Building: J13

Emission Point: J1305  
Height (ft.): 30 Diameter (in.): 24  
NYTMN (km.): 4777.9 NYTME (km.): 171.1 Building: J13

**Condition 34: Process Definition By Emission Unit**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR Subpart 201-6**

**Item 34.1:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: B-00001  
Process: B01 Source Classification Code: 3-01-071-03  
Process Description:

Hydrogen is produced in No. 1 and No. 2 diaphragm cell circuits via the electrolysis of brine. The gas is maintained at a slight positive pressure to prevent influx of air. Both circuit hydrogen headers are equipped with water or brine seals for pressure relief. During high pressure upsets, the hydrogen is vented to the atmosphere. The hydrogen is passed through direct contact brine spray coolers. The two hydrogen streams are then compressed and sent to customers, consumed onsite, or vented to the atmosphere. A negligible amount of sodium chloride/sodium hydroxide is entrained as particulates with the hydrogen gas.

Emission Source/Control: B0101 - Process

Emission Source/Control: B0102 - Process

Emission Source/Control: B0103 - Process

Emission Source/Control: B0104 - Process

Emission Source/Control: B0105 - Process

Emission Source/Control: B0106 - Process

Emission Source/Control: B0107 - Process

Emission Source/Control: B0108 - Process

**Item 34.2:**

This permit authorizes the following regulated processes for the cited Emission Unit:



Emission Unit: B-00002  
Process: B02 Source Classification Code: 3-01-870-09  
Process Description:

Sulfuric acid (98%) is shipped to the Niagara Plant in bulk shipments (primarily by tank trucks). During filling of the plant storage tanks, displaced air from the tanks is emitted to the atmosphere. The acid is used primarily for chlorine gas drying in the chlor-alkali process. There is no provision for controlling the intermittent emissions from these tanks.

Emission Source/Control: B0201 - Process

Emission Source/Control: B0202 - Process

**Item 34.3:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: B-00002  
Process: B03 Source Classification Code: 3-01-870-34  
Process Description:

Aqueous Hydrochloric Acid (<37%) is utilized to neutralize excess NaOH and Na<sub>2</sub>CO<sub>3</sub> in the cell feed brine, and brine sludge acidification to remove Na<sub>2</sub>SO<sub>4</sub> and recover CO<sub>2</sub>. Dilute HCl is used to clean cell parts. This acid is either produced at the Niagara Plant or shipped in from offsite and is transferred into Chlor-Alkali storage tanks as required. Tank vents are routed to the cell liquor sump where a spray of cell liquor (NaOH and NaCl) is utilized to scrub out and neutralize any HCl contained in the gas stream.

Emission Source/Control: B0303 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: B0301 - Process

Emission Source/Control: B0302 - Process

**Item 34.4:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: B-00003  
Process: B04 Source Classification Code: 5-04-106-21  
Process Description:

The chlor-alkali process utilizes OXSOL 1000 (3,4-dichlorobenzotrifluoride) as the heat transfer material in the Cell No. 1 and Cell No. 2 liquefaction





plant's cooling systems.

Emission Source/Control: B0402 - Control  
Control Type: CONSERVATION VENT

Emission Source/Control: B0401 - Process

**Item 34.5:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: B-00003  
Process: B05 Source Classification Code: 3-01-008-99  
Process Description:

Sodium hydroxide is produced in the H-4 Chlor-Alkali Process diaphragm cell circuits via the electrolysis of brine. The cell liquor resulting from this process contains approximately 12-15% caustic and roughly an equivalent amount of unreacted NaCl. The liquor is evaporated up to 50 percent caustic using a quadruple effect evaporator system. The caustic is then cooled using non contact cooling. During the evaporation and cooling steps, additional salt crystallizes and is removed using settling, centrifuge and filtration. The concentration, purification, and storage of the caustic includes a number of tanks which are vented to the atmosphere. The utilization of these tanks results in the emission of small quantities of particulates consisting of Sodium Hydroxide and Sodium Chloride.

Emission Source/Control: B0501 - Process

Emission Source/Control: B0502 - Process

Emission Source/Control: B0503 - Process

Emission Source/Control: B0504 - Process

Emission Source/Control: B0505 - Process

Emission Source/Control: B0506 - Process

Emission Source/Control: B0507 - Process

Emission Source/Control: B0508 - Process

**Item 34.6:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: C-00001  
Process: C01 Source Classification Code: 3-01-008-01  
Process Description:



The vent gases from the final step of the chlorine liquefaction processes are sparged into one or more of the six vent absorber tanks. These tanks contain sodium hydroxide and catalyst (note: aids in decomposition of hypochlorite). Off gases from these absorbers are vented to a spray scrubber which also uses an alkaline solution to scrub out any remaining chlorine prior to discharge into the atmosphere. Vents from the chlorine storages, and tank car blow down are also sparged into one of the six vent absorber tanks. In addition vents from the intermittent sources such as the waste sulfuric acid storage tanks, waste sulfuric acid trailer and tank car loading and equipment evacuations prior to maintenance are vented directly to the spray scrubber. Also, the bleach reactor and bleach storage tanks can be vented directly to the spray scrubber. The above sources operate in conjunction with Process Unit C03 Chlorine Scrubbing, East After Scrubber.

It should be noted that the tanks associated with emission points C0612 and C3101 are interchangeable and the process can operate with one After Scrubber (East or West) (caustic scrubbers associated with these emission points) down for maintenance.

Emission Source/Control: C0101 - Control  
Control Type: SODIUM-ALKALI SCRUBBING

Emission Source/Control: C0102 - Control  
Control Type: SODIUM-ALKALI SCRUBBING

Emission Source/Control: C0103 - Control  
Control Type: SODIUM-ALKALI SCRUBBING

Emission Source/Control: C0104 - Control  
Control Type: SODIUM-ALKALI SCRUBBING

Emission Source/Control: C0105 - Control  
Control Type: MIST ELIMINATOR

Emission Source/Control: C0110 - Control  
Control Type: SODIUM-ALKALI SCRUBBING

Emission Source/Control: C0106 - Process

Emission Source/Control: C0107 - Process

Emission Source/Control: C0108 - Process

Emission Source/Control: C0109 - Process

**Item 34.7:**



This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: C-00001  
Process: C02 Source Classification Code: 3-01-008-01  
Process Description:

The chlor-alkali circuit No. 1 contains a water seal on the main chlorine header. If an emergency occurs with the resultant excessive pressure, the seal is blown and the chlorine is routed to an emergency scrubber. A caustic solution neutralizes the chlorine released to the scrubber during periods of excessive system pressure. In addition, this scrubber, in the future, may occasionally be utilized to remove chlorine from miscellaneous vent streams.

A diesel powered emergency backup generator, ES-C0204, provides backup power to the Circuit No. 1 Header Seal Emergency Scrubber (ES-C0203).

Emission Source/Control: C0204 - Combustion

Emission Source/Control: C0203 - Control  
Control Type: SODIUM-ALKALI SCRUBBING

Emission Source/Control: C0201 - Process

Emission Source/Control: C0202 - Process

**Item 34.8:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: C-00001  
Process: C03 Source Classification Code: 3-01-008-01  
Process Description:

The vent gases from the final step of the chlorine liquefaction processes are sparged into one or more of the six vent absorber tanks. These tanks contain sodium hydroxide and catalyst (note: aids in decomposition of hypochlorite). Off gases from these absorbers are vented to a spray scrubber which also uses an alkaline solution to scrub out any remaining chlorine prior to discharge into the atmosphere. Vents from the chlorine storages and tank car blow down are also sparged into one of the six vent absorber tanks. In addition vents from the bleach reactor and bleach storage tanks are vented directly to the spray scrubber. Also the intermittent sources such as the waste sulfuric acid storage tanks, waste sulfuric acid trailer and tank car loading and equipment evacuations prior to maintenance are vented directly to the spray scrubber. The above sources operate in conjunction with



Process Unit C01- Chlorine Scrubbing, West After Scrubber.

It should be noted that the tanks associated with emission points C0612 and C3101 are interchangeable and the process can operate with one After Scrubber (East or West) (caustic scrubbers associated with these emission points) down for maintenance.

Emission Source/Control: C0301 - Control  
Control Type: SODIUM-ALKALI SCRUBBING

Emission Source/Control: C0302 - Control  
Control Type: SODIUM-ALKALI SCRUBBING

Emission Source/Control: C0305 - Control  
Control Type: MIST ELIMINATOR

Emission Source/Control: C0308 - Control  
Control Type: SODIUM-ALKALI SCRUBBING

Emission Source/Control: C0303 - Process

Emission Source/Control: C0304 - Process

Emission Source/Control: C0306 - Process

Emission Source/Control: C0307 - Process

**Item 34.9:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: C-00001  
Process: C04 Source Classification Code: 3-01-008-01  
Process Description:

The chlor-alkali circuit No. 2 contains a water seal on the main chlorine header. If an emergency occurs with resultant excessive pressure, the seal is blown and the chlorine is routed to an emergency scrubber. A caustic solution neutralizes the chlorine released to the scrubber during periods of excessive system pressure. In addition, the scrubber in the future may occasionally be utilized to remove chlorine from miscellaneous vent streams.

A diesel powered emergency backup generator, ES-C0404, provides backup power to the Circuit No. 1 Header Seal Emergency Scrubber (ES-C0403).

Emission Source/Control: C0404 - Combustion

Emission Source/Control: C0403 - Control  
Control Type: SODIUM-ALKALI SCRUBBING



Emission Source/Control: C0401 - Process

Emission Source/Control: C0402 - Process

**Item 34.10:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: C-00001

Process: C05

Source Classification Code: 3-01-008-99

Process Description:

Either alkaline brine or acidic brine can be used in the chlorine production process. When it is desirable to use acidic brine, brine is acidified in the brine head tank using hydrochloric acid. During the acidizing process, carbon dioxide and small quantities of both hydrochloric acid and chlorine may be liberated. A spray type scrubber is utilized when adding acid to brine to scrub the vent from the brine head tank using alkaline brine. The scrubber exit brine is returned to the process. On occasion condensate could be used as a substitute for the brine.

Emission Source/Control: C0502 - Control

Control Type: WET SCRUBBER

Emission Source/Control: C0501 - Process

**Item 34.11:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: C-00006

Process: C25

Source Classification Code: 3-01-011-99

Process Description:

The Hydrochloric Acid (HCl) Synthesis Process consists of a Chlorine Vaporizer, an HCl Combustion Unit (ES-C2501) with integrated Acid Absorber (ES-C2502), and a Tails Tower (ES-C2503). HCl is produced by the combustion of chlorine (Cl<sub>2</sub>) and hydrogen (H<sub>2</sub>) gas. An excess of H<sub>2</sub> is used to insure that all the chlorine is consumed. The combustion unit is immediately followed by an integrated acid absorbing unit. The acid absorber uses weak acid from both the tails tower and the storage tank scrubber as the absorbing medium, producing 163,000 tons per year of 35.2% HCl. Following the acid absorber, the excess H<sub>2</sub> is vented to the Tails Tower, a packed tower scrubber, that will reduce the emissions of HCl Prior to release to the atmosphere through the Tails Tower Vent (EP-C5101).

The HCl Synthesis unit also includes a rupture disc which is designed to allow the release of HCl emissions if there



is a malfunction in the process. In this scenario the release of HCl and Cl<sub>2</sub> will pass through the rupture disc and these emissions will be collected in a surge tank (ES-C2504) and passed through a scrubber (ES-C2505) prior to being released to the atmosphere through the emergency vent (EP-C5103).

Emission Source/Control: C2503 - Control  
Control Type: GAS SCRUBBER (GENERAL, NOT CLASSIFIED)

Emission Source/Control: C2505 - Control  
Control Type: GAS SCRUBBER (GENERAL, NOT CLASSIFIED)

Emission Source/Control: C2501 - Process  
Design Capacity: 163,000 tons per year

Emission Source/Control: C2502 - Process

Emission Source/Control: C2504 - Process

**Item 34.12:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: C-00006  
Process: C26 Source Classification Code: 3-01-011-98  
Process Description:

35% Hydrochloric Acid (HCl) from the synthesis unit will be collected in a 1700 gallon pump tank and then transferred to one of two 55,000 gallon proof tanks. HCl will be held in the proof tanks for concentration adjustment and quality checks. Acid will then be transferred to two 210,000 gallon product storage tanks before loading and shipping. All the HCl storage tanks are vented to a packed tower scrubber (EC-C2607) for acid gas control.

Emission Source/Control: C2607 - Control  
Control Type: GAS SCRUBBER (GENERAL, NOT CLASSIFIED)

Emission Source/Control: C2601 - Process

Emission Source/Control: C2602 - Process  
Design Capacity: 1,700 gallons

Emission Source/Control: C2603 - Process  
Design Capacity: 55,000 gallons

Emission Source/Control: C2604 - Process  
Design Capacity: 55,000 gallons

Emission Source/Control: C2605 - Process  
Design Capacity: 210,000 gallons



Emission Source/Control: C2606 - Process  
Design Capacity: 210,000 gallons

Emission Source/Control: C2608 - Process

**Item 34.13:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: E-00001  
Process: E01 Source Classification Code: 3-01-011-98  
Process Description:

Product grade hydrochloric acid (<37%) is stored in tanks (2 @ 30,000 gallons each). The HCl loading system can either load tank cars or trailers for shipment or can receive HCl from tank cars or trailers. Vents from these storage tanks and transfer system are vented to a packed scrubber (EC-E0106) which utilizes weak acid (<20%, specific gravity 1.1) as the circulating scrubber liquid.

Emission Source/Control: E0105 - Control  
Control Type: SINGLE CYCLONE

Emission Source/Control: E0106 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: E0101 - Process

Emission Source/Control: E0102 - Process

Emission Source/Control: E0103 - Process

Emission Source/Control: E0104 - Process

**Item 34.14:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: H-00001  
Process: H01 Source Classification Code: 3-01-008-99  
Process Description:

Several process tanks contained in the caustic evaporation and salt removal process are vented to a water scrubber. These tanks include filter cake, hot surge tank, centrifuge feed, primary salt slurry, and secondary salt slurry tanks. The vents from these tanks are tied together. An exhaust fan pulls air from these vents which is contaminated with trace quantities of sodium chloride and sodium hydroxide through the scrubber system, which utilizes water sprays to remove the entrained contaminants



from the gas stream.

Emission Source/Control: H0106 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: H0101 - Process

Emission Source/Control: H0102 - Process

Emission Source/Control: H0103 - Process

Emission Source/Control: H0104 - Process

Emission Source/Control: H0105 - Process

**Item 34.15:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: H-00001  
Process: H02 Source Classification Code: 3-01-008-99  
Process Description:

The "H" Area salt removal centrifuges include two primary and two secondary centrifuges which remove salt from the caustic streams during the caustic concentration process. The exhaust air from the centrifuges is contaminated with small quantities of sodium chloride and sodium hydroxide. The exhaust air from the primary centrifuges is fed to a spray type scrubber to remove any entrained sodium chloride and sodium hydroxide before the air is exhausted to the atmosphere. A similar air exhaust and scrubber system is utilized with the secondary centrifuges.

Emission Source/Control: H0203 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: H0206 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: H0201 - Process

Emission Source/Control: H0202 - Process

Emission Source/Control: H0204 - Process

Emission Source/Control: H0205 - Process

**Item 34.16:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: I-00001  
Process: I04 Source Classification Code: 3-01-830-01





Process Description:

One bulk material storage building (T28) is located on the south side of Buffalo Avenue at the Niagara facility. This building is vented by ventilation fans to the atmosphere. Currently, the building is used to store gypsum, product, raw materials, salt and equipment.

Emission Source/Control: I0103 - Process

**Item 34.17:**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: J-00001

Process: J01

Source Classification Code: 3-01-008-99

Process Description:

Each H4 diaphragm cell must be periodically removed from service, disassembled, and rebuilt. One of the primary reasons for doing this is to replace the asbestos diaphragm that is attached to the cell's cathode. The first step in the diaphragm renewal is to wash the old diaphragm off the cathode with high pressure water. The removed asbestos is then dewatered and sent to an industrial landfill. The bare cathode is immersed in a bath of hydrochloric acid for rust removal, if needed. The cathode is then ready for the diaphragm depositing. A vacuum pump is utilized to transfer asbestos to the wet mix tank. The cathode is connected to the vacuum source and immersed in an asbestos slurry. The vacuum draws the slurry through the cathode and deposits the asbestos on the cathode screen. Once the depositing is complete, the cathode is allowed to air dry. Lastly, the cathode is placed in a natural gas fired oven and baked. This not only dries and hardens the asbestos diaphragm, but also fuses the polymers that bind the asbestos coating together.

Emission Source/Control: J0101 - Process

Emission Source/Control: J0102 - Process

Emission Source/Control: J0103 - Process

Emission Source/Control: J0104 - Process

Emission Source/Control: J0105 - Process

**Condition 35: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement: 6 NYCRR 212.4 (c)**

**New York State Department of Environmental Conservation**

Permit ID: 9-2911-00112/00233

Facility DEC ID: 9291100112



**Item 35.1:**

The Compliance Certification activity will be performed for:

Emission Unit: B-00001

Regulated Contaminant(s):

CAS No: 0NY075-00-0      PARTICULATES

**Item 35.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Hydrogen emissions are trivial activities per 6 NYCRR Part 201-3.3(c)(94). Concentration of the entrained particulate matter (NaCl/NaOH) must not exceed 0.05 gr/dscf uncorrected. Per calculations, process emissions are negligible.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 36: Compliance Certification**

**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 212.9 (b)**

**Item 36.1:**

The Compliance Certification activity will be performed for:

Emission Unit: B-00002

Process: B02

Regulated Contaminant(s):

CAS No: 007664-93-9      SULFURIC ACID

**Item 36.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Per calculations, process emissions are negligible. Maintain records necessary to perform annual emissions and discharge reporting.

**New York State Department of Environmental Conservation**

Permit ID: 9-2911-00112/00233

Facility DEC ID: 9291100112



Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: CALENDAR YEAR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 37: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement: 6 NYCRR 212.9 (b)**

**Item 37.1:**

The Compliance Certification activity will be performed for:

Emission Unit: B-00002

Process: B03

Regulated Contaminant(s):

CAS No: 007647-01-0 HYDROGEN CHLORIDE

**Item 37.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Aqueous Hydrochloric Acid (<37%) is utilized to neutralize excess NaOH and Na<sub>2</sub>CO<sub>3</sub> in the cell feed brine, and for brine sludge acidification to remove Na<sub>2</sub>SO<sub>4</sub> and recover CO<sub>2</sub>. Dilute HCl is used to clean cell parts. This acid is either produced at the Niagara Plant or shipped in from offsite and is transferred into Chlor-Alkali storage tanks as required. Tank vents are routed to the cell liquor sump where a spray of cell liquor (NaOH and NaCl) is utilized to scrub out and neutralize any HCl contained in the gas stream. The cell liquor will be sampled on a weekly basis. If the total alkalinity is less than 10 grams per liter, additional reagent will be added to adjust the concentration back into the appropriate range and/or the reagent will be removed and the scrubber will be charged with fresh reagent. Scrubber must be in operation while conducting transfers into the storage tank. Sampling records will be recorded and available for inspection when requested by the agency.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: SOLUTION

Parameter Monitored: CONCENTRATION

**New York State Department of Environmental Conservation**

Permit ID: 9-2911-00112/00233

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Lower Permit Limit: 10 grams per liter  
Monitoring Frequency: WEEKLY  
Averaging Method: MINIMUM - NOT TO FALL BELOW STATED  
VALUE - SEE MONITORING DESCRIPTION  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2014.  
Subsequent reports are due every 6 calendar month(s).

**Condition 38: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 229.3 (e) (2) (v)**

**Item 38.1:**

The Compliance Certification activity will be performed for:

Emission Unit: B-00003  
Process: B04

Regulated Contaminant(s):  
CAS No: 0NY998-00-0 VOC

**Item 38.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The Chlor-Alkali Process utilizes OXSOL 1000 (3,4 - Dichlorobenzotrifluoride) as the heat transfer material in the Cell No. 1 and Cell No. 2 Chlorine Liquefaction Plants Cooling System. The surge tank that is part of this system has a conservation vent that emits to the atmosphere. The conservation vent is incorporated in the facility's preventive maintenance (PM) program and the maintenance procedures listed in the PM program for this conservation vent must be followed. Records of required maintenance must be retained for five years.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 39: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 212.9 (b)**

**Item 39.1:**

**New York State Department of Environmental Conservation**

Permit ID: 9-2911-00112/00233

Facility DEC ID: 9291100112



The Compliance Certification activity will be performed for:

Emission Unit: B-00003

Process: B05

Regulated Contaminant(s):

CAS No: 001310-73-2      SODIUM HYDROXIDE

**Item 39.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Maintain records necessary to perform annual emissions and discharge reporting.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: CALENDAR YEAR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 40: Compliance Certification**

**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement: 6 NYCRR Subpart 201-6**

**Item 40.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00001

**Item 40.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

This condition applies to the two identical 619 HP (461 kW) Caterpillar Model C15 diesel powered emergency generators (Model Year 2010, displacement 2.53 liters/cylinder, EPA Tier 3, Emergency Stationary) which were installed in 2011 to provide backup power for the two Header Seal Emergency Scrubbers. The Circuit No. 1 scrubber is associated with the engine defined as ES C0204/EP C50A1/Process C02, and the Circuit No. 2 scrubber is associated with the engine defined as ES C0404/EP B33A1/Process C04.

The engines are subject to several requirements of 40 CFR



60 Subpart IIII, identified in a separate condition elsewhere in this permit. Subpart IIII does not contain explicit monitoring and recordkeeping requirements for some of these compliance standards; however, 6 NYCRR Subpart 201-6 Title V Air Permit regulations require compliance verification. The following monitoring and recordkeeping requirements associated with the standards of 40 CFR 60 Subpart IIII apply to each of these engines.

#### I. OPERATIONAL LIMITATIONS

##### A. Emission Limits/Engine Technical Information

1. The permittee (i.e., owner or operator) is authorized to install, operate, and maintain a stationary compression ignition (CI) internal combustion engine (ICE) emergency diesel generator (emergency generator) that (1) is certified by the manufacturer to be at least a model year 2010, and (2) has a maximum engine power of 461 kilowatts (kW) (or 619 horsepower or HP), and a displacement of less than 10 liters per cylinder.

#### II. MONITORING REQUIREMENTS

##### A. Sulfur Content in Fuel

1. The permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 15 ppm and has either a minimum cetane index of 40 or a maximum aromatic content of 35% by volume.

##### B. Engine Operational Characteristics

1. During periods of operation for maintenance, testing, and readiness testing, the permittee shall monitor the operational characteristics of the engine (i.e., emergency generator) as recommended by the manufacturer.

#### III. RECORDKEEPING REQUIREMENTS

##### A. Hourly Operational Records and Operational Characteristics Record

1. The permittee shall maintain monthly records of emergency and non-emergency operation for the emergency generator. Records shall include the number of hours of emergency operation, the date and number of hours of testing, maintenance, and readiness testing operations, the purpose of operation and records of operational characteristic monitoring.



B. Fuel Type and Usage Record

1. The permittee shall keep monthly records of fuel type and usage.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 41: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:40CFR 60, NSPS Subpart A**

**Item 41.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00001

**Item 41.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

This condition applies to the two identical 619 HP (461 kW) Caterpillar Model C15 diesel powered emergency generators (Model Year 2010, displacement 2.53 liters/cylinder, EPA Tier 3, Emergency Stationary) which were installed in 2011 to provide backup power for the two Header Seal Emergency Scrubbers. The Circuit No. 1 scrubber is associated with the engine defined as ES C0204/EP C50A1/Process C02, and the Circuit No. 2 scrubber is associated with the engine defined as ES C0404/EP B33A1/Process C04.

The following standards from 40 CFR 60 Subpart A apply to each of these engines.

As specified at 40 CFR 60. 4218, the permittee shall comply with certain sections of 40 CFR 60 Subpart A, "General Provisions". These sections shall include, but not be limited to, the following:

1. All requests, reports, applications, submittals, and

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other communications to the Administrator pursuant to Part 60 shall be submitted in duplicate to the Regional Office of U.S. Environmental Protection Agency. Submit information to Director, Division of Enforcement & Compliance Assistance, U.S. EPA Region 2, 290 Broadway, New York, NY 10007-1866. [40 CFR 60.4(a)]

2. Copies of all correspondence submitted to the EPA Administrator pursuant to 40 CFR Part 60 shall also be submitted to the NYSDEC Regional Office issuing this permit (see address at the beginning of this permit) and to the following address: NYSDEC, Bureau of Quality Assurance, 625 Broadway, Albany, NY 12233-3258. [40 CFR 60.4(b)]

3. No owner or operator subject to NSPS standards in Part 60, shall build, erect, install, or use any article, machine, equipment, or process, the use of which conceals an emission, which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard, which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12]

4. An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate. The owner or operator shall notify the Administrator of proposed replacement of components if the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the requirements of 40 CFR 60.15(d)(1-7). [40 CFR 60.15]

5. Changes in time periods for submittal of information and postmark deadlines set forth in this subpart, may be made only upon approval by the Administrator and shall follow procedures outlined in 40 CFR Part 60.19. [40 CFR 60.19]

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 42: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**





**Applicable Federal Requirement:40CFR 60, NSPS Subpart IIII**

**Item 42.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00001

Regulated Contaminant(s):

CAS No: 000630-08-0	CARBON MONOXIDE
CAS No: 0NY508-00-0	40 CFR 60 SUBPART IIII - NMHC + NOX
CAS No: 0NY075-00-0	PARTICULATES

**Item 42.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

This condition applies to the two identical 619 HP (461 kW) Caterpillar Model C15 diesel powered emergency generators (Model Year 2010, displacement 2.53 liters/cylinder, EPA Tier 3, Emergency Stationary) which were installed in 2011 to provide backup power for the two Header Seal Emergency Scrubbers. The Circuit No. 1 scrubber is associated with the engine defined as ES C0204/EP C50A1/Process C02, and the Circuit No. 2 scrubber is associated with the engine defined as ES C0404/EP B33A1/Process C04.

The following standards from 40 CFR 60 Subpart IIII apply to each of these engines.

**I. OPERATIONAL LIMITATIONS**

**A. Emission Limits/Engine Technical Information**

1. The emergency generator must comply with: (1) the certification emissions standards in 40 CFR 89.112 for the same model year and maximum engine power as follows: NMHC + NOx less than or equal to 4.0 g/kW-hr, CO less than or equal to 3.5 g/kW-hr, and PM less than or equal to 0.2 g/kW-hr; and (2) the certification smoke standards in 40 CFR 89.113. [40 CFR 60.4205(b), referencing 40 CFR 60.4202(a)(2)]

2. The permittee must operate and maintain the emergency generator to achieve the emissions standards specified at 40 CFR 60.4205(b) over the entire life of the engines. [40 CFR 60.4206]

**B. Fuel Requirements**



1. The sulfur content of diesel fuel burned in the emergency generator shall not exceed 15 ppm (0.0015 % by weight), and either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent, as required by 40 CFR 80.510 (b). [40 CFR 60.4207(b)]

## II. EMERGENCY DESIGNATION

1. The emergency generator must be operated in accordance with the requirements of 40 CFR 60.4211 (f) (1) through (3). Otherwise, the emergency generator will not be considered emergency engines under 40 CFR 60 Subpart IIII and must meet all requirements for non-emergency engines. [40 CFR 60. 4211(f)]

2. Any operation of the emergency generator, other than emergency operation, maintenance, and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described at 40 CFR 60. 4211 (f) (1) through (3), is prohibited. [40 CFR 60. 4211(f)]

3. There is no time limit on the use of emergency generator in emergency situations unless otherwise prohibited by other permit conditions. [40 CFR 60.4211 (f) (1)]

4. The emergency generator may be operated for any combination of the purposes specified at 40 CFR 60. 4211(f) (2) (i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 60.4211 (f) (3) counts as part of the 100 hours per calendar year. [40 CFR 60. 4211(f) (2)]

5. The emergency generator may be operated for the purposes of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of the emergency generator is limited to 100 hours per year, each. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of the emergency generator beyond 100 hours per year. [40 CFR 60.4211(f) (2) (i)]

6. The emergency generator may operate for emergency demand response in accordance with the requirements



specified at 40 CFR 60.4211(f)(2)(ii). [40 CFR 60.4211(f)(2)(ii)].

7. The emergency generator may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 60.4211(f)(2)(iii)]

8. The emergency generator may operate up to 50 hours/year in non-emergency situations, each, but those 50 hours are counted toward the 100 hours/year provided for maintenance and testing. The 50 hours/year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. [40 CFR 60.4211(f)(3)]

9. The emergency generator must meet all of the following criteria as described in the definition of Emergency Stationary Internal Combustion Engine in 40 CFR 60.4219:

a. The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.

b. The stationary ICE is operated under limited circumstances for situations not included in paragraph 9.a above, as specified in §60.4211(f).

c. The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph 9.a above only as allowed in 40 CFR 60.4211(f)(2)(ii) or (iii) and 40 CFR 60.4211(f)(3)(i).

[40 CFR 60.4219]

### III. COMPLIANCE

1. The permittee must: (1) operate and maintain the emergency generator according to the manufacturer's emission-related written instructions; (2) change only those emission-related setting settings that are permitted by the manufacturer; and (3) meet the requirements of 40 CFR part 89, 94 and /or 1068, as applicable. [40 CFR



60.4211(a)]

2. The permittee must demonstrate compliance with the emergency generator's emissions standards specified at 40 CFR 60.4205(b) by purchasing an engine certified to the emissions standards in 40 CFR 60.4205(b), for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications. [40 CFR 60.4211(c)]

3. Since the engine ( i.e., emergency generator) is an emergency stationary ICE, the Permittee is not required to submit an initial notification. [40 CFR 60.4214(b)]

4. The permittee shall comply with the applicable provisions of 40 CFR 60 Subpart A "General Provisions", as required by table 8 of 40 CFR 60 Subpart IIII. [40 CFR 60.4218]

#### IV. MONITORING REQUIREMENTS

##### A. Hour Meter Installation

1. The permittee must install non-resettable hour meters prior to the startup of the emergency generator. [40 CFR 60.4209(a)]

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 43: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:40CFR 63, Subpart ZZZZ**

#### **Item 43.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00001

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

CAS No: 0NY100-00-0 TOTAL HAP

#### **Item 43.2:**

Compliance Certification shall include the following monitoring:

New York State Department of Environmental Conservation

Permit ID: 9-2911-00112/00233

Facility DEC ID: 9291100112



Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

This condition applies to the two identical 619 HP (461 kW) Caterpillar Model C15 diesel powered emergency generators (Model Year 2010, displacement 2.53 liters/cylinder, EPA Tier 3, Emergency Stationary) which were installed in 2011 to provide backup power for the two Header Seal Emergency Scrubbers. The Circuit No. 1 scrubber is associated with the engine defined as ES C0204/EP C50A1/Process C02, and the Circuit No. 2 scrubber is associated with the engine defined as ES C0404/EP B33A1/Process C04.

The following standards from 40 CFR 63 Subpart ZZZZ apply to each of these engines.

The emergency generator is a new affected source as defined under 40 CFR 63 Subpart ZZZZ, and the facility is an area source of HAPs emissions as defined at 40 CFR 63.2. The permittee shall meet the requirements at 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII. No further requirements of 40 CFR 63 Subpart ZZZZ apply to the emergency generator. [40 CFR 63.6590(c)]

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 44: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 212.9 (b)**

**Item 44.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00001  
Process: C01

Emission Point: C0612

Regulated Contaminant(s):  
CAS No: 007782-50-5 CHLORINE

**Item 44.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE



Monitoring Description:

The vent gases from the final step of the chlorine liquefaction processes are sparged into one or more of the six vent absorber tanks. These tanks contain sodium hydroxide and catalyst (note: aids in decomposition of hypochlorite). Off gases from these absorbers are vented to a spray scrubber, West After Scrubber, which also uses an alkaline solution to scrub out any remaining chlorine prior to discharge into the atmosphere. Vents from the chlorine storages, and tank car blow down are also sparged into one of the six vent absorber tanks. In addition vents from the intermittent sources such as the waste sulfuric acid storage tanks, waste sulfuric acid trailer and tank car loading and equipment evacuations prior to maintenance are vented directly to the spray scrubber. Also, the bleach reactor and bleach storage tanks can be vented directly to the spray scrubber. The above sources operate in conjunction with Process Unit C03 Chlorine Scrubbing, East After Scrubber. Since the West After Scrubber is the last scrubber providing control, the monitoring of the scrubber strength provides assurance that the overall unit is operating as intended. The West After Scrubber will be sampled on a daily basis. If the total alkalinity is less than 10 grams per liter, additional reagent will be added to adjust the concentration back into the appropriate range and/or the reagent will be removed and the scrubber will be charged with fresh reagent. The pump pressure of the circulating scrubber fluid will be monitored and recorded on a daily basis with a pressure range of approximately 25- 40 psi. The sampling records will be retained for five years and be available for inspection when requested by the agency.

Note: It should be noted that the tanks associated with emission points C0612 and C3101 are interchangeable and the process can operate with one After Scrubber (East or West) (caustic scrubbers associated with these emission points) down for maintenance.

Work Practice Type: PARAMETER OF PROCESS MATERIAL  
Process Material: SOLUTION  
Parameter Monitored: CONCENTRATION  
Lower Permit Limit: 10 grams per liter  
Monitoring Frequency: DAILY  
Averaging Method: MINIMUM - NOT TO FALL BELOW STATED  
VALUE - SEE MONITORING DESCRIPTION  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2014.  
Subsequent reports are due every 6 calendar month(s).

**Condition 45: Compliance Certification**



Effective between the dates of 03/14/2014 and 03/13/2019

Applicable Federal Requirement: 6 NYCRR 212.9 (b)

**Item 45.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00001 Emission Point: C0613  
Process: C02

Regulated Contaminant(s):  
CAS No: 007782-50-5 CHLORINE

**Item 45.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The Chlor-Alkali Circuit No. 1 contains a water seal on the main chlorine header. If an emergency occurs with resultant excessive pressure, the seal is blown and the chlorine is routed to an emergency scrubber, No. 1 EVS. A caustic solution neutralizes the chlorine released to the scrubber during periods of excessive system pressure. In addition, this scrubber in the future may be occasionally utilized to remove chlorine from miscellaneous vent streams and maintenance activities. The No. 1 EVS will be sampled on a weekly basis. If the total alkalinity is less than 10 grams per liter, additional reagent will be added to adjust the concentration back into the appropriate range and/or the reagent will be removed and the scrubber will be charged with fresh reagent. The pump pressure of the circulating scrubbing fluid will be monitored and recorded on a weekly basis with a pressure range of approximately 25-45 psi. The sampling records will be retained for five years and be available for inspection when requested by the agency.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: SOLUTION

Parameter Monitored: CONCENTRATION

Lower Permit Limit: 10 grams per liter

Monitoring Frequency: WEEKLY

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED  
VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 46: Compliance Certification**



Effective between the dates of 03/14/2014 and 03/13/2019

Applicable Federal Requirement:6 NYCRR 212.9 (b)

**Item 46.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00001 Emission Point: C3101  
Process: C03

Regulated Contaminant(s):  
CAS No: 007782-50-5 CHLORINE

**Item 46.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The vent gases from the final step of the chlorine liquefaction processes are sparged into one or more of the six vent absorber tanks. These tanks contain sodium hydroxide and catalyst (note: aids in decomposition of hypochlorite). Off gases from these absorbers are vented to a spray scrubber, East After Scrubber, which also uses an alkaline solution to scrub out any remaining chlorine prior to discharge into the atmosphere. Vents from the chlorine storages, and tank car blow down are also sparged into one of the six vent absorber tanks. In addition vents from the intermittent sources such as the waste sulfuric acid storage tanks, waste sulfuric acid trailer and tank car loading and equipment evacuations prior to maintenance are vented directly to the spray scrubber. Also, the bleach reactor and bleach storage tanks can be vented directly to the spray scrubber. The above sources operate in conjunction with Process Unit C01 Chlorine Scrubbing, West After Scrubber. Since the East After Scrubber is the last scrubber providing control, the monitoring of the scrubber strength provides assurance that the overall unit is operating as intended. The East After Scrubber will be sampled on a daily basis. If the total alkalinity is less than 10 grams per liter, additional reagent will be added to adjust the concentration back into the appropriate range and/or the reagent will be removed and the scrubber will be charged with fresh reagent. The pump pressure of the circulating scrubber fluid will be monitored and recorded on a daily basis with a pressure range of approximately 25- 40 psi. The sampling records will be retained for five years and be available for inspection when requested by the agency.

Note: It should be noted that the tanks associated with



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emission points C0612 and C3101 are interchangeable and the process can operate with one After Scrubber (East or West) (caustic scrubbers associated with these emission points) down for maintenance.

Work Practice Type: PARAMETER OF PROCESS MATERIAL  
Process Material: SOLUTION  
Parameter Monitored: CONCENTRATION  
Lower Permit Limit: 10 grams per liter  
Monitoring Frequency: DAILY  
Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE - SEE MONITORING DESCRIPTION  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2014.  
Subsequent reports are due every 6 calendar month(s).

**Condition 47: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement: 6 NYCRR 212.9 (b)**

**Item 47.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00001                      Emission Point: C3102  
Process: C04

Regulated Contaminant(s):  
CAS No: 007782-50-5                      CHLORINE

**Item 47.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The Chlor-Alkali Circuit No. 2 contains a water seal on the main chlorine header. If an emergency occurs with resultant excessive pressure, the seal is blown and the chlorine is routed to an emergency scrubber, No. 2 EVS. A caustic solution neutralizes the chlorine released to the scrubber during periods of excessive system pressure. In addition, this scrubber in the future may be occasionally utilized to remove chlorine from miscellaneous vent streams and maintenance activities. The No. 2 EVS will be sampled on a weekly basis. If the total alkalinity is less than 10 grams per liter, additional reagent will be added to adjust the concentration back into the appropriate range and/or the reagent will be removed and the scrubber will be charged with fresh reagent. The pump pressure of the circulating scrubbing fluid will be

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monitored and recorded on a weekly basis with a pressure range of approximately 32-52 psi. The sampling records will be retained for five years and be available for inspection when requested by the agency.

Work Practice Type: PARAMETER OF PROCESS MATERIAL  
Process Material: SOLUTION  
Parameter Monitored: CONCENTRATION  
Lower Permit Limit: 10 grams per liter  
Monitoring Frequency: WEEKLY  
Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE - SEE MONITORING DESCRIPTION  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2014.  
Subsequent reports are due every 6 calendar month(s).

**Condition 48: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 212.9 (b)**

**Item 48.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00001                      Emission Point: C3410  
Process: C05

Regulated Contaminant(s):  
CAS No: 007782-50-5                      CHLORINE

**Item 48.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Either alkaline brine or acidic brine can be used in the chlorine production process. When it is desirable to use acidic brine, brine is acidified in the brine head tank using hydrochloric acid. During the acidizing process, carbon dioxide and small quantities of both hydrochloric acid and chlorine may be liberated. A spray type scrubber is utilized when adding acid to brine to scrub the vent from the brine head tank using alkaline brine. The scrubber exit brine is returned to the process. On occasion condensate could be used as a substitute for the brine. When acidic brine is being produced, the scrubber will be sampled on a daily basis. If the total alkalinity is less than 100 ppm as sampled at the brine pretreater tank, additional reagent will be added to adjust the concentration back into the appropriate range and/or the

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reagent will be removed and the scrubber will be charged with fresh reagent. The sampling records will be retained for five years and be available for inspection when requested by the agency.

Work Practice Type: PARAMETER OF PROCESS MATERIAL  
Process Material: SOLUTION  
Parameter Monitored: CONCENTRATION  
Lower Permit Limit: 100 parts per million (by volume)  
Monitoring Frequency: DAILY  
Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE - SEE MONITORING DESCRIPTION  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2014.  
Subsequent reports are due every 6 calendar month(s).

**Condition 49: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement: 6 NYCRR 212.9 (b)**

**Item 49.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00006                      Emission Point: C5101  
Process: C25                                      Emission Source: C2503

Regulated Contaminant(s):  
CAS No: 007647-01-0                      HYDROGEN CHLORIDE

**Item 49.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

A performance test of the Tails Tower Scrubber must be completed within 180 days after initial startup of the HCl Synthesis unit to evaluate compliance with current ambient air quality standards.

The performance test must be conducted at the maximum normal operating process load. The performance test is required to demonstrate a minimum hydrogen chloride control efficiency of 99.5% or a maximum emission rate of 0.9 pounds per hour. Compliance will be demonstrated by achieving either of these limits during emission testing, but not necessarily both.

Control parameter operating limits shall be re-established during the three-run performance test, including product acid strength and temperature. Control parameter data



must be collected every 15 minutes during the entire period of the performance tests. Hourly averages of the parameters shall be used to re-establish the operating limits for the scrubber system.

A performance test protocol shall be submitted to the Department for approval at least 60 days prior to the start of the test. The Department must be notified at least 30 days prior to the scheduled test date so that a Department representative may be present during the test.

The results of the performance test shall be submitted to the Department within 60 days following completion of the performance test.

A review of the measured control parameters shall be submitted to the Department within 60 days following completion of the performance test. The review shall re-establish the operating and monitoring limits for this emission source.

A DAR-1 analysis and AERSCREEN or approved equivalent modeling evaluation shall be completed using the performance test emission results to determine the short-term and annual guidance impact levels.

If the operating and monitoring limits have changed based on the performance test and modeling analysis, the facility submit an application to the Department to update the permit to reflect the changes.

Performance testing will be required once per permit term.

Lower Permit Limit: 99.5 percent reduction  
Reference Test Method: Per Department-approved method  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2014.  
Subsequent reports are due every 6 calendar month(s).

**Condition 50: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement: 6 NYCRR 212.9 (b)**

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Permit ID: 9-2911-00112/00233

Facility DEC ID: 9291100112



**Item 50.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00006  
Process: C25

Emission Point: C5101  
Emission Source: C2503

Regulated Contaminant(s):  
CAS No: 007647-01-0      HYDROGEN CHLORIDE

**Item 50.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The Tails Tower scrubber is a packed scrubber for which we conservatively use 99.5% control efficiency of HCl for emission determinations. The tails tower scrubber is a once through scrubber that uses fresh water as the scrubber medium. Strength and temperature of the product acid will be monitored to ensure that the scrubber is working effectively. Product acid strength will be controlled to < 37.2% by weight and product acid temperature will be controlled to < 120 degrees F. These parameters are controlled by adjusting scrubber fresh water flow. Acid strength and temperature will be recorded at least once per shift. Records of the product acid strength and temperature readings will be maintained onsite and provided to the DEC upon request. Deviations will be reported in the semiannual monitoring reports.

Parameter Monitored: ACID STRENGTH

Upper Permit Limit: 37.2 percent by weight

Monitoring Frequency: PER SHIFT

Averaging Method: AVERAGING METHOD - SEE MONITORING  
DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 51: Compliance Certification**

**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 212.9 (b)**

**Item 51.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00006  
Process: C25

Emission Point: C5101  
Emission Source: C2503

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Permit ID: 9-2911-00112/00233

Facility DEC ID: 9291100112



Regulated Contaminant(s):  
CAS No: 007647-01-0 HYDROGEN CHLORIDE

**Item 51.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The Tails Tower scrubber is a packed scrubber for which we conservatively use 99.5% control efficiency of HCl for emission determinations. The tails tower scrubber is a once through scrubber that uses fresh water as the scrubber medium. Strength and temperature of the product acid will be monitored to ensure that the scrubber is working effectively. Product acid strength will be controlled to < 37.2 % by weight and product acid temperature will be controlled to < 120 degrees F. These parameters are controlled by adjusting scrubber fresh water flow. Acid strength and temperature will be recorded at least once per shift. Records of the product acid strength and temperature readings will be maintained onsite and provided to the DEC upon request. Deviations will be reported in the semiannual monitoring reports.

Parameter Monitored: TEMPERATURE

Upper Permit Limit: 120 degrees Fahrenheit

Monitoring Frequency: PER SHIFT

Averaging Method: AVERAGING METHOD - SEE MONITORING  
DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 52: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 212.9 (b)**

**Item 52.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00006                      Emission Point: C5102  
Process: C26                                      Emission Source: C2607

Regulated Contaminant(s):  
CAS No: 007647-01-0 HYDROGEN CHLORIDE

**Item 52.2:**

Compliance Certification shall include the following monitoring:



Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

A performance test of the "C" Area Scrubber (EC-C2607) must be completed within 180 days after initial startup of the HCl Synthesis unit to evaluate compliance with current ambient air quality standards. Percent removal and pounds per hour of emissions shall be evaluated.

The performance test must be conducted at the maximum normal anticipated load. The performance test is required to demonstrate minimum hydrogen chloride control efficiency of 99.5% or a maximum emission rate of 0.03 pounds per hour. Compliance will be demonstrated by achieving either of these limits during emission testing, but not necessarily both.

Control parameter operating limits shall be re-established during the three-run performance test, including specific gravity of the scrubbing acid and scrubber liquor circulation rate. Control parameter data must be collected every 15 minutes during the entire period of the performance tests. Hourly averages of the parameters shall be used to re-establish the operating limits for the scrubber system.

A performance test protocol shall be submitted to the Department for approval at least 60 days prior to the start of the test. The Department must be notified at least 30 days prior to the scheduled test date so that a Department representative may be present during the test.

The results of the performance test shall be submitted to the Department within 60 days following completion of the performance test.

A review of the measured control parameters shall be submitted to the Department within 60 days following completion of the performance test. The review shall re-establish the operating and monitoring limits for this emission source.

A DAR-1 analysis and AERSCREEN or approved equivalent modeling evaluation shall be completed using the performance test emission results to determine the short-term and annual guidance impact levels.

If the operating and monitoring limits have changed based on the performance test and modeling analysis, the facility shall submit an application to the Department to update the permit to reflect the changes.



Performance testing will be required once per permit term.

Lower Permit Limit: 99.5 percent reduction

Reference Test Method: Per Department-approved method

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST

METHOD INDICATED

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 53: Compliance Certification**

**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 212.9 (b)**

**Item 53.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00006

Emission Point: C5102

Process: C26

Emission Source: C2607

Regulated Contaminant(s):

CAS No: 007647-01-0

HYDROGEN CHLORIDE

**Item 53.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The "C" Area scrubber (EC-C2607) is a packed scrubber for which we conservatively use 99.5% control efficiency of HCl for emission determinations. Specific gravity of scrubbing acid and the circulation rate will be monitored to ensure that the scrubber is working effectively. The specific gravity will be controlled between 1.0 and 1.1 (corrected to 60 degrees F). The scrubber liquor circulation rate will be maintained between 10 and 60 gallons per minute.

In the event that a flow meter is not working then the horsepower of the pump motor will be monitored to demonstrate compliance of the flow rate. A lower limit of 1.3 horsepower and an upper limit of 2.5 horsepower are equal to 10 gallons per minute and 60 gallons per minute respectively. If this occurs the flow meter will be repaired as soon as practical.



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The specific gravity and flow rate will be recorded once per shift. Records of the liquor circulation rate and specific gravity readings (and pump motor horsepower, in the event of flow meter failure) will be maintained onsite and provided to the DEC upon request. Deviations will be reported in the semiannual monitoring reports.

Parameter Monitored: FLOW RATE

Lower Permit Limit: 10 gallons per minute

Upper Permit Limit: 60 gallons per minute

Monitoring Frequency: PER SHIFT

Averaging Method: RANGE - NOT TO FALL OUTSIDE OF STATED RANGE AT ANY TIME

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 54: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement: 6 NYCRR 212.9 (b)**

**Item 54.1:**

The Compliance Certification activity will be performed for:

Emission Unit: C-00006

Emission Point: C5102

Process: C26

Emission Source: C2607

Regulated Contaminant(s):

CAS No: 007647-01-0

HYDROGEN CHLORIDE

**Item 54.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The "C" Area scrubber is a packed scrubber (EC-C2607) for which we conservatively use 99.5% control efficiency of HCl for emission determinations. Specific gravity of scrubbing acid and the circulation rate will be monitored to ensure that the scrubber is working effectively. The specific gravity will be controlled between 1.0 and 1.1 (corrected to 60 degrees F). The scrubber liquor circulation rate will be maintained between 10 and 60 gallons per minute. Records of the liquor circulation rate and specific gravity readings will be maintained onsite and provided to the DEC upon request. Deviations will be reported in the semiannual monitoring reports.

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Parameter Monitored: SPECIFIC GRAVITY  
Lower Permit Limit: 1.0 Unitless  
Upper Permit Limit: 1.1 Unitless  
Monitoring Frequency: PER SHIFT  
Averaging Method: RANGE - NOT TO FALL OUTSIDE OF STATED RANGE AT ANY TIME  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2014.  
Subsequent reports are due every 6 calendar month(s).

**Condition 55: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement: 6 NYCRR 212.9 (b)**

**Item 55.1:**

The Compliance Certification activity will be performed for:

Emission Unit: E-00001

Regulated Contaminant(s):

CAS No: 007647-01-0 HYDROGEN CHLORIDE

**Item 55.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

This condition shall be used to demonstrate compliance of Emission Unit E-00001 until this emission unit is modified as part of the construction of the HCl Synthesis Unit which is included as a minor modification in this permit action. Once the HCl Synthesis Unit begins operation, conditions included elsewhere in this permit will be used to demonstrate compliance for Emission Unit E-00001.

A scrubber (packed tower) is utilized to remove hydrogen chloride from contaminated vapor generated by the HCl storage and transfer system. Product grade hydrochloric acid (<37% weight percent) is stored in tanks (2 @ 30,000 gallons each). The HCl loading system can either load tank cars or trailers for shipment or can receive HCl from tank cars or trailers. The circulating scrubber liquor is typically a weak solution of hydrochloric acid (less than 3.0 weight percent HCl) but is acceptable to range as high as 32% by weight. The scrubber will be sampled on a weekly basis and the liquor will be replaced/adjusted with water or weak acid as appropriate. The flow meter on the scrubber will be checked once per shift when unloading operations are in progress to ensure the flow is



approximately 25 gallons per minute or more. The sampling records will be retained for five years and be available for inspection when requested by the agency. In cases where >37% HCl is being transferred from trailers/tank cars to the storage tanks the scrubber will be charged with fresh water prior to the transfer. This will be noted in the operating record, retained for five years and be available for inspection when requested by the agency.

Parameter Monitored: VOLUMETRIC FLOW RATE

Lower Permit Limit: 25 gallons per minute

Monitoring Frequency: PER SHIFT

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 56: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement: 6 NYCRR 212.9 (b)**

**Item 56.1:**

The Compliance Certification activity will be performed for:

Emission Unit: E-00001

Regulated Contaminant(s):

CAS No: 007647-01-0 HYDROGEN CHLORIDE

**Item 56.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

This condition shall be used to demonstrate compliance of Emission Unit E-00001 after the new HCl Synthesis Unit, which is included as a minor modification in this permit action, begins operation.

The purpose of this condition is to limit the annual emissions from the E Area scrubber on a 12-month rolling basis by limiting tons of hydrochloric acid that can be loaded or unloaded in accord with information provided in the permit application for the hydrogen chloride synthesis and storage emission unit. Records of tons loaded and unloaded during operation will be maintained onsite and will be used to calculate annual emissions from this source. Records will be maintained onsite and will be provided to the DEC upon request. Deviations will be



reported in the semiannual monitoring reports.

The E Area scrubber (EC-E0106) is a packed scrubber used to remove hydrogen chloride from contaminated vapor generated by the HCl storage and transfer system. Product grade hydrochloric acid (<37.2 % by weight) is stored in tanks (2 @ 30,000 gallons each). The HCl loading system can either load tank cars or trailers for shipment or can receive HCl from tank cars or trailers. Hourly emissions from the scrubber are limited under intermittent emission testing monitoring conditions elsewhere in this permit.

Based on information provided in the permit application, potential emissions were estimated assuming 163,000 tons of 35.2% HCl produced per 12-month period and anticipated hourly emissions during peak loading of two trailers and two trucks simultaneously. These values were used in a DAR-1 analysis and AERSCREEN modeling evaluation to determine the short-term and annual guidance impact levels. These values have been used in this permit to establish initial operating requirements.

The results of the performance test of the "E" Area Scrubber to be carried out under the intermittent emission testing monitoring conditions may be used to re-establish the operating and monitoring limits.

A DAR-1 analysis and AERSCREEN or approved equivalent modeling evaluation shall be completed using the performance test emission results to determine the short-term and annual guidance impact levels.

If the operating and monitoring limits have changed based on the performance test and modeling analysis, the facility may submit an application to the Department to update the permit to reflect the changes.

Parameter Monitored: ACID  
Upper Permit Limit: 163000 tons  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: 12-MONTH TOTAL, ROLLED MONTHLY  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2014.  
Subsequent reports are due every 6 calendar month(s).

**Condition 57: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 212.9 (b)**

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**Item 57.1:**

The Compliance Certification activity will be performed for:

Emission Unit: E-00001

Regulated Contaminant(s):

CAS No: 007647-01-0 HYDROGEN CHLORIDE

**Item 57.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

This condition shall be used to demonstrate compliance of Emission Unit E-00001 after the new HCl Synthesis Unit, which is included as a minor modification in this permit action, begins operation.

The E Area scrubber (EC-E0106) is a packed scrubber used to remove hydrogen chloride from contaminated vapor generated by the HCl storage and transfer system. Product grade hydrochloric acid (<37.2 % by weight) is stored in tanks (2 @ 30,000 gallons each). The HCl loading system can either load tank cars or trailers for shipment or can receive HCl from tank cars or trailers.

The specific gravity of scrubbing acid and the circulation rate will be monitored to ensure that the scrubber is working effectively. The specific gravity will be controlled between 1.0 and 1.1 (corrected to 60 degrees F). The circulation rate will be maintained between 25 and 75 gallons per minute. The specific gravity and flow rate will be recorded once per shift. Records of the liquor circulation rate and specific gravity readings will be maintained onsite and will be provided to the DEC upon request. Deviations will be reported in the semiannual monitoring reports.

Parameter Monitored: SPECIFIC GRAVITY

Lower Permit Limit: 1.0 Unitless

Upper Permit Limit: 1.1 Unitless

Monitoring Frequency: PER SHIFT

Averaging Method: AVERAGING METHOD - SEE MONITORING  
DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 58: Compliance Certification**



Effective between the dates of 03/14/2014 and 03/13/2019

Applicable Federal Requirement: 6 NYCRR 212.9 (b)

**Item 58.1:**

The Compliance Certification activity will be performed for:

Emission Unit: E-00001

Regulated Contaminant(s):  
CAS No: 007647-01-0 HYDROGEN CHLORIDE

**Item 58.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This condition shall be used to demonstrate compliance of Emission Unit E-00001 after the new HCl Synthesis Unit, which is included as a minor modification in this permit action, begins operation.

A performance test of the "E" Area Scrubber (EC-E0106) must be completed within 180 days after initial startup of the HCl Synthesis unit to evaluate compliance with current ambient air quality standards. Percent removal and pounds per hour of emissions shall be evaluated.

The performance test must be conducted at the maximum normal anticipated load. The performance test is required to demonstrate a minimum hydrogen chloride control efficiency of 99.5% or a maximum emission rate of 0.6 pounds per hour. Compliance will be demonstrated by achieving either of these limits during emission testing, but not necessarily both.

Control parameter operating limits shall be re-established during the three-run performance test, including specific gravity of the scrubbing acid and scrubber liquor circulation rate. Control parameter data must be collected every 15 minutes during the entire period of the performance tests. Hourly averages of the parameters shall be used to re-establish the operating limits for the scrubber system.

A performance test protocol shall be submitted to the Department for approval at least 60 days prior to the start of the test. The Department must be notified at least 30 days prior to the scheduled test date so that a Department representative may be present during the test.

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The results of the performance test shall be submitted to the Department within 60 days following completion of the performance test.

A review of the measured control parameters shall be submitted to the Department within 60 days following completion of the performance test. The review shall re-establish the operating and monitoring limits for this emission source.

A DAR-1 analysis and AERSCREEN or approved equivalent modeling evaluation shall be completed using the performance test emission results to determine the short-term and annual guidance impact levels.

If the operating and monitoring limits have changed based on the performance test and modeling analysis, the facility submit an application to the Department to update the permit to reflect the changes.

Performance testing will be required once per permit term.

Lower Permit Limit: 99.5 percent reduction  
Reference Test Method: Per Department-approved method  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2014.  
Subsequent reports are due every 6 calendar month(s).

**Condition 59: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 212.9 (b)**

**Item 59.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: E-00001

Regulated Contaminant(s):  
CAS No: 007647-01-0 HYDROGEN CHLORIDE

**Item 59.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL



DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

This condition shall be used to demonstrate compliance of Emission Unit E-00001 after the new HCl Synthesis Unit, which is included as a minor modification in this permit action, begins operation.

The E Area scrubber (EC-E0106) is a packed scrubber used to remove hydrogen chloride from contaminated vapor generated by the HCl storage and transfer system. Product grade hydrochloric acid (<37.2 % by weight) is stored in tanks (2 @ 30,000 gallons each). The HCL loading system can either load tank cars or trailers for shipment or can receive HCl from tank cars or trailers.

The specific gravity of scrubbing acid and the circulation rate will be monitored to ensure that the scrubber is working effectively. The specific gravity will be controlled between 1.0 and 1.1 (corrected to 60 degrees F). The circulation rate will be maintained between 25 and 75 gallons per minute.

In the event that a flow meter is not working then the horsepower of the pump motor will be monitored to demonstrate compliance of the flow rate. A lower limit of 3.4 horsepower and an upper limit of 5.0 horsepower are equal to 25 gallons per minute and 75 gallons per minute respectively. If this occurs the flow meter will be repaired as soon as practical.

The specific gravity and flow rate will be recorded once per shift. Records of the liquor circulation rate and specific gravity readings (and pump motor horsepower, in the event of flow meter failure) will be maintained onsite and will be provided to the DEC upon request. Deviations will be reported in the semiannual monitoring reports.

Parameter Monitored: VOLUMETRIC FLOW RATE

Lower Permit Limit: 25 gallons per minute

Upper Permit Limit: 75 gallons per minute

Monitoring Frequency: PER SHIFT

Averaging Method: RANGE - NOT TO FALL OUTSIDE OF STATED RANGE AT ANY TIME

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 60: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement: 6 NYCRR 212.4 (c)**



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**Item 60.1:**

The Compliance Certification activity will be performed for:

Emission Unit: H-00001

Emission Point: H2401

Process: H01

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

**Item 60.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Several process tanks contained in the caustic evaporation and salt removal process are vented to a water scrubber. These tanks include filter cake, hot surge tank, centrifuge feed, primary salt slurry, and secondary salt slurry tanks. The vents from these tanks are tied together. An exhaust fan pulls air from these vents which is contaminated with trace quantities of sodium chloride and sodium hydroxide through the scrubber system, which utilizes water sprays to remove entrained contaminants from the gas stream. The scrubber will be in operation (according to its design and with proper maintenance) whenever the exhaust fan is in operation. The water flow to the scrubber will be monitored by a rotameter once each day and the low range of the flow will be approximately 2 gallons per minute. This flowrate will be noted in the operating log, retained for five years and be available for inspection when requested by the Agency.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 61: Compliance Certification**

**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 212.4 (c)**

**Item 61.1:**

The Compliance Certification activity will be performed for:

Emission Unit: H-00001

Emission Point: H2402

Process: H02



Regulated Contaminant(s):  
CAS No: 0NY075-00-0 PARTICULATES

**Item 61.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES  
Monitoring Description:

The "H" Area Salt Removal Centrifuges include two primary centrifuges which remove salt from caustic streams during the caustic concentration process. The exhaust air from the centrifuges is contaminated with small quantities of sodium chloride and sodium hydroxide. The exhaust air from the primary centrifuges are fed to a spray type scrubber to remove any entrained sodium chloride and sodium hydroxide before the air is exhausted to the atmosphere. The primary salt centrifuge water scrubber must be in operation (according to its design and with proper maintenance) whenever the primary centrifuges are in operation. The water flow to the scrubber will be monitored by a rotameter once each day and the low range of the flow will be approximately 2 gallons per minute. This flowrate will be noted in the operating log, retained for five years and be available for inspection when requested by the Agency.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 62: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:6 NYCRR 212.4 (c)**

**Item 62.1:**

The Compliance Certification activity will be performed for:

Emission Unit: H-00001 Emission Point: H2403  
Process: H02

Regulated Contaminant(s):  
CAS No: 0NY075-00-0 PARTICULATES

**Item 62.2:**

Compliance Certification shall include the following monitoring:



Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The "H" Area Salt Removal Centrifuges includes two secondary centrifuges which remove salt from caustic streams during the caustic concentration process. The exhaust air from the centrifuges is contaminated with small quantities of sodium chloride and sodium hydroxide. The exhaust air from the secondary centrifuges is fed to a spray type scrubber to remove any entrained sodium chloride and sodium hydroxide before the air is exhausted to the atmosphere. The secondary salt centrifuge water scrubber must be in operation (according to its design and with proper maintenance) whenever the secondary centrifuges are in operation. The water flow to the scrubber will be monitored by a rotameter once each day and the low range of the flow will be approximately 2 gallons per minute. This flowrate will be noted in the operating log, retained for five years and be available for inspection when requested by the Agency.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

**Condition 63: Compliance Certification**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable Federal Requirement:40CFR 61, NESHAP Subpart M**

**Item 63.1:**

The Compliance Certification activity will be performed for:

Emission Unit: J-00001

Regulated Contaminant(s):

CAS No: 001332-21-4 ASBESTOS

**Item 63.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

40CFR Part 61 Subpart M -National Emission Standards for Asbestos



Each H-4 diaphragm cell must be periodically removed from service, disassembled, and rebuilt. One of the primary reasons for doing this is to replace the asbestos diaphragm that is attached to the cells cathode. The first step in diaphragm renewal is to wash the old diaphragm off the cathode with high pressure water. The removed asbestos is then dewatered and sent to an industrial landfill. The bare cathode is immersed in a bath of hydrochloric acid for rust removal, if needed. The cathode is then ready for diaphragm depositing. A vacuum pump is utilized to transfer asbestos into the wet mix tank. The cathode is connected to the vacuum source and immersed in an asbestos slurry. The vacuum draws the slurry through the cathode and deposits the asbestos onto the cathode screen. Once depositing is complete, the cathode is allowed to dry. Lastly, the cathode is placed in a natural gas fired oven and baked. This not only dries and hardens the asbestos diaphragm but also fuses the polymers that bind the asbestos coating together. This process unit is subject to the Asbestos NESHAP for manufacturing and for waste disposal. (40 CFR Part 61, Subpart M, Section 144 & 150). The applicable standards, monitoring, recordkeeping, and reporting requirements that are specified in the Asbestos NESHAP (40 CFR Part 61, Subpart M, Section 144 & 150) as well as the applicable portions of the General Provisions in the NESHAP (40 CFR Part 61 Subpart A) must be adhered to.

The Asbestos use for the caustic-chlorine diaphragm cells is regulated under 40CFR Part 61.144 Standards for Manufacturing under applicability (a)(9), the manufacture of chlorine utilizing asbestos diaphragm technology. The standards as they apply to the Niagara Facility are as follows:

1. The permittee must discharge no visible emissions to the outside air from these operations or from buildings or structures in which they are conducted or from any other fugitive source.
2. During periods of operation, the permittee must monitor at least once a day during daylight hours each potential source of asbestos emissions for visible emissions to the outside air from any part of the manufacturing facility, including air cleaning devices, process equipment, and buildings housing material processing and handling equipment.
3. The permittee must maintain records of the result of visible emissions monitoring inspections that include the following: (i) date and time of each inspection; (ii) presence or absence of visible emissions; and, (iii) brief



description of corrective actions taken, including date and times;

4. The permittee must furnish upon request and make available at the facility during normal business hours for inspection by the Administrator or the Department, all records required under this section.

5. The permittee must retain a copy of all monitoring and inspection records for at least five years.

6. The permittee must submit quarterly a copy of the visible emission monitoring records to the Administrator and the Department if visible emissions occur during the report period. These reports must be postmarked by the 30th day following the end of the calendar quarter.

In addition the permittee must comply with 61.150 provisions for waste disposal for manufacturing, fabricating, demolition, renovation, and spraying operations as a unit regulated under 61.144 .

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 4/30/2014.

Subsequent reports are due every 3 calendar month(s).



**STATE ONLY ENFORCEABLE CONDITIONS**  
**\*\*\*\* Facility Level \*\*\*\***

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**  
**This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability**

**Item A: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5**

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**STATE ONLY APPLICABLE REQUIREMENTS**  
**The following conditions are state applicable requirements and are not subject to compliance certification requirements unless otherwise noted or required under 6 NYCRR Part 201.**

**Condition 64: Contaminant List**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable State Requirement:ECL 19-0301**

**Item 64.1:**  
Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 000071-43-2  
Name: BENZENE



CAS No: 000630-08-0  
Name: CARBON MONOXIDE

CAS No: 001310-73-2  
Name: SODIUM HYDROXIDE

CAS No: 001332-21-4  
Name: ASBESTOS

CAS No: 007647-01-0  
Name: HYDROGEN CHLORIDE

CAS No: 007664-93-9  
Name: SULFURIC ACID

CAS No: 007782-50-5  
Name: CHLORINE

CAS No: 0NY075-00-0  
Name: PARTICULATES

CAS No: 0NY100-00-0  
Name: TOTAL HAP

CAS No: 0NY508-00-0  
Name: 40 CFR 60 SUBPART IIII - NMHC + NOX

CAS No: 0NY998-00-0  
Name: VOC

**Condition 65: Malfunctions and start-up/shutdown activities**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable State Requirement:6 NYCRR 201-1.4**

**Item 65.1:**

(a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.

(b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the



facility to the department.

(c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

(d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.

(e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

**Condition 66: Visible Emissions Limited**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable State Requirement:6 NYCRR 211.2**

**Item 66.1:**

Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

**Condition 67: Compliance Demonstration**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable State Requirement:6 NYCRR 211.2**

**Item 67.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 67.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Occidental Chemical's Procedure ER-1 is in place to manage complaints related to air emissions from this facility.

The procedure is designed to ensure that complaints from officials or neighbors are adequately received and documented, and that appropriate response is taken by the facility. ER-1 includes the following components:

1. Have a complaint phone line available 24 hours a day,





- 7 days a week.
- 2. Investigate any possible causes of any complaint received.
- 3. Take prompt action to abate any circumstance which is found to be the cause of the complaint.
- 4. Fully document the complaint, results of investigation, and any action taken.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

\*\*\*\* Emission Unit Level \*\*\*\*

**Condition 68: Compliance Demonstration**  
**Effective between the dates of 03/14/2014 and 03/13/2019**

**Applicable State Requirement:6 NYCRR 201-1.4**

**Item 68.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: C-00006	Emission Point: C5103
Process: C25	Emission Source: C2505

Regulated Contaminant(s):	
CAS No: 007782-50-5	CHLORINE
CAS No: 007647-01-0	HYDROGEN CHLORIDE

**Item 68.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The HCl Synthesis unit includes a rupture disc which is designed to allow the release of HCl and Cl2 emissions if there is a malfunction in the process. In the event of a system pressure excursion (>4 psi) the rupture disc will release excess HCl and Cl2 to the surge tank (ES-C2504) allowing the gas to be released slowly to an emergency scrubber (ES-C2505) with 95% removal efficiency prior to being released to the atmosphere.

This control system will help to ensure that when periodic malfunctions occur they will not result in an exceedance of the short term ambient air quality guideline concentrations or odor thresholds. The scrubber is packed

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**Facility DEC ID: 9291100112**



with PHD dry scrubber adsorbent media (Type DSH 400), or equivalent. A sample of the adsorbent material will be collected after every twelve events or annually, whichever comes first. Based on the results of this sampling OCC will replace the necessary amount of scrubber media.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2014.

Subsequent reports are due every 6 calendar month(s).

