



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

**IDENTIFICATION INFORMATION**

Permit Type: Air State Facility  
Permit ID: 5-4140-00189/00004  
Mod 0 Effective Date: 03/16/2015 Expiration Date: 03/15/2025  
Mod 1 Effective Date: 09/12/2016 Expiration Date: 03/15/2025  
Mod 2 Effective Date: 05/17/2017 Expiration Date: 03/15/2025

Permit Issued To: GLOBALFOUNDRIES US INC  
2600 GREAT AMERICA WAY  
SANTA CLARA, CA 95054

Contact: BRIAN RALEY  
LUTHER FOREST TECHNOLOGY CAMPUS  
400 STONE BREAK RD EXT  
BALLSTON SPA, NY 12020  
(518) 305-9211

Facility: FAB 8  
LUTHER FOREST TECHNOLOGY CAMPUS | 400 STONE BREAK ROAD  
EXTENSION  
MALTA, NY 12020

Description:  
A semiconductor wafer fabrication clean room facility with associated manufacturing space and support facilities (such as boiler systems and backup power generation).

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: MARC S MIGLIORE  
NYSDEC - WARRENSBURG SUBOFFICE  
232 GOLF COURSE RD  
WARRENSBURG, NY 12885

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
  - 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 5 SUBOFFICE - WARRENSBURG



**DEC GENERAL CONDITIONS**  
**\*\*\*\* General Provisions \*\*\*\***  
**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 1-1: Applications for permit renewals, modifications and transfers**  
**Applicable State Requirement: 6 NYCRR 621.11**

**Item 1-1.1:**

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 1-1.2:**

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

**Item 1-1.3**

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 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 5**  
**SUBOFFICE - WARRENSBURG**  
**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 5 Sub-office  
Division of Environmental Permits

**New York State Department of Environmental Conservation**  
**Facility DEC ID: 5414000189**



232 Golf Course Road  
Warrensburg, NY 12885-1172  
(518) 623-1281

**New York State Department of Environmental Conservation**

Permit ID: 5-4140-00189/00004

Facility DEC ID: 5414000189



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

**ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY  
PERMIT**

**IDENTIFICATION INFORMATION**

Permit Issued To: GLOBALFOUNDRIES US INC  
2600 GREAT AMERICA WAY  
SANTA CLARA, CA 95054

Facility: FAB 8  
LUTHER FOREST TECHNOLOGY CAMPUS | 400 STONE BREAK  
ROAD EXTENSION  
MALTA, NY 12020

Authorized Activity By Standard Industrial Classification Code:  
3674 - SEMICONDUCTORS & RELATED DEVICES

Mod 0 Permit Effective Date: 03/16/2015

Permit Expiration Date: 03/15/2025

Mod 1 Permit Effective Date: 09/12/2016

Permit Expiration Date: 03/15/2025

Mod 2 Permit Effective Date: 05/17/2017

Permit Expiration Date: 03/15/2025



**LIST OF CONDITIONS**

**FEDERALLY ENFORCEABLE CONDITIONS**

**Facility Level**

- 2 6 NYCRR 201-7.1: Facility Permissible Emissions
- \*1-1 6 NYCRR 201-7.1: Capping Monitoring Condition
- \*1-2 6 NYCRR 201-7.1: Capping Monitoring Condition
- \*3 6 NYCRR 201-7.1: Capping Monitoring Condition
- \*5 6 NYCRR 201-7.1: Capping Monitoring Condition
- 7 6 NYCRR 202-1.1: Compliance Demonstration
- 8 6 NYCRR 202-1.1: Compliance Demonstration
- 9 6 NYCRR 202-1.1: Compliance Demonstration
- 10 6 NYCRR 202-1.1: Compliance Demonstration
- 11 6 NYCRR 211.1: Air pollution prohibited
- 1-3 6 NYCRR 212-1.6 (a): Compliance Demonstration
- 2-1 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 2-2 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 2-3 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 2-4 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-4 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-6 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-9 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-10 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-11 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-13 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-14 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-15 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-16 6 NYCRR 212-2.4 (b): Compliance Demonstration
- 1-17 40CFR 60.48c(a), NSPS Subpart Dc: Compliance Demonstration
- 26 40CFR 63, Subpart JJJJJ: Applicability
- 27 40CFR 63, Subpart ZZZZ: Applicability

**Emission Unit Level**

**EU=B-00001**

- 28 6 NYCRR 227-1.3 (a): Compliance Demonstration
- 29 40CFR 60, NSPS Subpart Dc: Compliance Demonstration

**EU=F-00001,Proc=F10**

- 1-18 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-19 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-20 6 NYCRR 212-1.7 (b): Compliance Demonstration

**EU=F-00001,Proc=F11**

- 1-21 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-22 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-23 6 NYCRR 212-1.7 (b): Compliance Demonstration

**EU=F-00004,Proc=407**

- 1-24 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-25 6 NYCRR 212-1.7 (b): Compliance Demonstration





1-26 6 NYCRR 212-1.7 (b): Compliance Demonstration

**STATE ONLY ENFORCEABLE CONDITIONS**

**Facility Level**

- 39 ECL 19-0301: Contaminant List
- 40 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 41 6 NYCRR Subpart 201-5: Emission Unit Definition
- 42 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
- 43 6 NYCRR 201-5.3 (c): Compliance Demonstration
- 44 6 NYCRR 201-5.4 (e): Compliance Demonstration
- 45 6 NYCRR 211.2: Visible Emissions Limited
- 1-27 6 NYCRR 212-2.3 (b): Compliance Demonstration
- 48 6 NYCRR 225-1.2: Compliance Demonstration

**Emission Unit Level**

- 49 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
- 50 6 NYCRR Subpart 201-5: Process Definition By Emission Unit

NOTE: \* preceding the condition number indicates capping.



**FEDERALLY ENFORCEABLE CONDITIONS**

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

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability**

**Item A: Sealing - 6 NYCRR 200.5**

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation.

Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

**Item B: Acceptable Ambient Air Quality - 6 NYCRR 200.6**

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.

**Item C: Maintenance of Equipment - 6 NYCRR 200.7**

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.

**Item D: Unpermitted Emission Sources - 6 NYCRR 201-1.2**

If an existing emission source was subject to the permitting requirements of 6 NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply:

(a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.

(b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

**Item E: Recycling and Salvage - 6 NYCRR 201-1.7**

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of 6 NYCRR.

**Item F: Prohibition of Reintroduction of Collected Contaminants to the Air - 6 NYCRR 201-1.8**

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.

**Item G: Proof of Eligibility for Sources Defined as Exempt Activities - 6 NYCRR 201-3.2 (a)**

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source 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 which contains emission sources or units subject to 6 NYCRR Subpart 201-3, 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.

**Item H: Proof of Eligibility for Sources Defined as Trivial**





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otherwise be subject to:

6 NYCRR 201-6.1 (a)  
6 NYCRR Subpart 227-2

**Item 1-1.2:**

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

**Item 1-1.3:**

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.

**Item 1-1.4:**

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 1-1.5:**

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 1-1.6:**

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):  
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 1-1.7:**

Compliance Demonstration shall include the following monitoring:

Capping: Yes

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

Monitoring Description:

The facility is capping out of Title V and NOX RACT requirements by limiting nitrogen oxides emissions, facility wide, to 90 tons per year on a 12 month rolling total basis. The facility will maintain monthly fuel consumption records for natural gas and #2 oil and monthly hours of operations for the generators. Emissions shall be calculated using the emission specific emission factors for natural gas fired combustion devices, oil fired boilers and diesel fired generators.

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Parameter Monitored: OXIDES OF NITROGEN  
Upper Permit Limit: 90 tons per year  
Monitoring Frequency: MONTHLY  
Averaging Method: AVERAGING METHOD - SEE MONITORING  
DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2017.  
Subsequent reports are due every 12 calendar month(s).

**Condition 1-2: Capping Monitoring Condition**  
**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement: 6 NYCRR 201-7.1**

**Item 1-2.1:**

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR 201-6.1 (a)

**Item 1-2.2:**

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

**Item 1-2.3:**

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.

**Item 1-2.4:**

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 1-2.5:**

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 1-2.6:**

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):  
CAS No: 000630-08-0 CARBON MONOXIDE

**New York State Department of Environmental Conservation**

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**Item 1-2.7:**

Compliance Demonstration shall include the following monitoring:

Capping: Yes

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

Monitoring Description:

The facility is capping out of Title V and requirements by limiting carbon monoxide emissions, facility wide, to 90 tons per year on a 12 month rolling total basis. The facility will maintain monthly fuel consumption records for natural gas and #2 oil and monthly hours of operations for the generators. Emissions shall be calculated using the emission specific emission factors for natural gas fired combustion devices, oil fired boilers and diesel fired generators.

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 90 tons per year

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 3: Capping Monitoring Condition**  
**Effective between the dates of 03/16/2015 and 03/15/2025**

**Applicable Federal Requirement:6 NYCRR 201-7.1**

**Item 3.1:**

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR 201-6.1 (a)

**Item 3.2:**

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

**Item 3.3:**

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.

**Item 3.4:**



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On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 3.5:**

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 3.6:**

The Compliance Demonstration activity will be performed for the Facility.

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

**Item 3.7:**

Compliance Demonstration shall include the following monitoring:

Capping: Yes

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

Monitoring Description:

The facility is capping out of Title V requirements by limiting emissions of volatile organic compounds (VOCs) to less than 45 tons per year, facility wide, on a 12 month rolling total basis. Emissions will be calculated based on material usage and control efficiencies demonstrated during stack testing.

Parameter Monitored: VOC's

Upper Permit Limit: 45 tons per year

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2016.

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

**Condition 5:    Capping Monitoring Condition**  
**Effective between the dates of 03/16/2015 and 03/15/2025**

**Applicable Federal Requirement:6 NYCRR 201-7.1**

**Item 5.1:**

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

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6 NYCRR 201-6.1 (a)  
40 CFR Part 63, Subpart BBBBB

**Item 5.2:**

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

**Item 5.3:**

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.

**Item 5.4:**

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

**Item 5.5:**

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

**Item 5.6:**

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):  
CAS No: 0NY100-00-0      TOTAL HAP

**Item 5.7:**

Compliance Demonstration shall include the following monitoring:

Capping: Yes

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

Monitoring Description:

The facility is capping out of Title V and the semiconductor NESHAP requirements by limiting emissions of total hazardous air pollutants (HAPs) to less than 24 tons per year and limiting individual HAPs to less than 10 tons per year, facility wide, on a 12 month rolling total basis.

HAP emissions will be based on emissions testing for Chlorine, Hydrogen Chloride and Hydrogen Fluoride and emission factors determined based on the above testing for other HAPs.

Parameter Monitored: TOTAL HAP

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Upper Permit Limit: 24 tons per year  
Monitoring Frequency: MONTHLY  
Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY  
Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2016.  
Subsequent reports are due every 12 calendar month(s).

**Condition 7: Compliance Demonstration**  
**Effective between the dates of 03/16/2015 and 03/15/2025**

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

**Item 7.1:**

The Compliance Demonstration activity will be performed for the facility:  
The Compliance Demonstration applies to:

Emission Unit: F-00001  
Process: F10

Emission Unit: F-00001  
Process: F11

Emission Unit: F-00004  
Process: 407

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

**Item 7.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Hydrogen chloride emissions from acid scrubbers shall not exceed 0.50 parts per million. Stack testing will be performed at one or more of the selected emission points. Testing frequency will be once every 5 years and additionally at the Department's discretion.

Parameter Monitored: HYDROGEN CHLORIDE

Upper Permit Limit: 0.50 parts per million (by volume)

Reference Test Method: Method 26A

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 8: Compliance Demonstration**  
**Effective between the dates of 03/16/2015 and 03/15/2025**



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

**Item 8.1:**

The Compliance Demonstration activity will be performed for the facility:  
The Compliance Demonstration applies to:

Emission Unit: F-00001  
Process: F10

Emission Unit: F-00001  
Process: F11

Emission Unit: F-00004  
Process: 407

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

**Item 8.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Control efficiency of thermal oxidizers must meet or exceed 90% for individual volatile organic compounds (VOCs). An overall control efficiency of 98% using Method 25A or an emission limit of 10 parts per million by volume measured as methane (whichever is less stringent) may be used as a surrogate to demonstrate compliance. Stack testing will be performed at one or more of the selected emission points. Testing frequency will be once every 5 years and additionally at the Department's discretion.

Parameter Monitored: VOC's

Upper Permit Limit: 98 percent reduction by weight

Reference Test Method: Method 25A

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 9: Compliance Demonstration**  
**Effective between the dates of 03/16/2015 and 03/15/2025**

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

**Item 9.1:**

The Compliance Demonstration activity will be performed for the facility:  
The Compliance Demonstration applies to:

Emission Unit: F-00001



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Process: F10

Emission Unit: F-00001

Process: F11

Emission Unit: F-00004

Process: 407

Regulated Contaminant(s):

CAS No: 007664-39-3      HYDROGEN FLUORIDE

**Item 9.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Hydrogen fluoride emissions from acid scrubbers shall not exceed 0.92 parts per million. Stack testing will be performed at one or more of the selected emission points. Testing frequency will be once every 5 years and additionally at the Department's discretion.

Parameter Monitored: HYDROGEN FLUORIDE

Upper Permit Limit: 0.92 parts per million (by volume)

Reference Test Method: Method 26A

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 10:      Compliance Demonstration**  
**Effective between the dates of 03/16/2015 and 03/15/2025**

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

**Item 10.1:**

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: F-00001

Process: F10

Emission Unit: F-00001

Process: F11

Emission Unit: F-00004

Process: 407

Regulated Contaminant(s):

CAS No: 007782-50-5      CHLORINE

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**Item 10.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Chlorine emissions from acid scrubbers shall not exceed 0.26 parts per million. Stack testing will be performed at one or more of the selected emission points. Testing frequency will be once every 5 years and additionally at the Department's discretion.

Parameter Monitored: CHLORINE

Upper Permit Limit: 0.26 parts per million (by volume)

Reference Test Method: Method 26A

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 11: Air pollution prohibited**  
**Effective between the dates of 03/16/2015 and 03/15/2025**

**Applicable Federal Requirement:6 NYCRR 211.1**

**Item 11.1:**

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 1-3: Compliance Demonstration**  
**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement:6 NYCRR 212-1.6 (a)**

**Item 1-3.1:**

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

**Item 1-3.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:









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(gpm) for these scrubbers.

Parameter Monitored: FLOW RATE

Lower Permit Limit: 235 gallons per minute

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 2-4: Compliance Demonstration**  
**Effective between the dates of 05/17/2017 and 03/15/2025**

**Applicable Federal Requirement: 6 NYCRR 212-1.7 (b)**

**Item 2-4.1:**

The Compliance Demonstration activity will be performed for the facility:  
The Compliance Demonstration applies to:

Emission Unit: F-00004 Process: 407	Emission Source: A127A
Emission Unit: F-00004 Process: 407	Emission Source: AS124
Emission Unit: F-00004 Process: 407	Emission Source: AS125
Emission Unit: F-00004 Process: 407	Emission Source: AS126
Emission Unit: F-00004 Process: 407	Emission Source: AS127

**Item 2-4.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Scrubber pH for acid scrubbers in TDC Acid Scrubber Bank 1 will be monitored and recorded on a continuous basis whenever the associated process equipment is operating except during quality assurance and routine maintenance activities. Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous monitoring.

Scrubber pH must be maintained at or above the minimum value established during the most recent stack test. If there has been no stack test, the parameter will be the manufacturer's recommended value. The current limit is a

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minimum pH of 9.5 for these scrubbers.

Parameter Monitored: ACIDITY/ALKALINITY

Lower Permit Limit: 9.5 pH (STANDARD) units

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-4: Compliance Demonstration**  
**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement: 6 NYCRR 212-1.7 (b)**

**Item 1-4.1:**

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: F-00001

Process: F11

Emission Source: CS471

Emission Unit: F-00001

Process: F11

Emission Source: CS472

Emission Unit: F-00001

Process: F11

Emission Source: CS473

**Item 1-4.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Scrubber pH for caustic scrubbers in Extension Caustic Scrubber Bank 2 will be monitored and recorded on a continuous basis whenever the associated process equipment is operating except during quality assurance and routine maintenance activities. Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous monitoring.

Scrubber pH must be maintained at or below the maximum value established during the most recent stack test. If there has been no stack test, the parameter will be the manufacturer's recommended value. The current limit is a maximum pH of 3.3 for these scrubbers.

Parameter Monitored: ACIDITY/ALKALINITY

Upper Permit Limit: 3.3 pH (STANDARD) units

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

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DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-6: Compliance Demonstration**  
**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement:6 NYCRR 212-1.7 (b)**

**Item 1-6.1:**

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: F-00001

Process: F10

Emission Source: CS003

Emission Unit: F-00001

Process: F10

Emission Source: CS004

Emission Unit: F-00001

Process: F10

Emission Source: CS005

**Item 1-6.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Scrubber water recirculation flow rate for caustic scrubbers in Fab 8.1 Caustic Scrubber Bank 1 will be monitored and recorded on a continuous basis whenever the associated process equipment is operating except during quality assurance and routine maintenance activities.

Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous monitoring.

Scrubber water recirculation flow rate must be maintained at or above the minimum level established during the most recent stack test. If there has been no stack test, the parameter will be the manufacturer's recommended value.

The current limit is a minimum of 520 gallons per minute (gpm) for these scrubbers.

Parameter Monitored: FLOW RATE

Lower Permit Limit: 520 gallons per minute

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY



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**Item 1-10.1:**

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: F-00001

Process: F10

Emission Source: CS468

Emission Unit: F-00001

Process: F10

Emission Source: CS469

Emission Unit: F-00001

Process: F10

Emission Source: CS470

**Item 1-10.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Scrubber pH for caustic scrubbers in Fab 8.1 Scrubber Bank 2 will be monitored and recorded on a continuous basis whenever the associated process equipment is operating except during quality assurance and routine maintenance activities. Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous monitoring.

Scrubber pH must be maintained at or below the maximum value established during the most recent stack test. If there has been no stack test, the parameter will be the manufacturer's recommended value. The current limit is a maximum pH of 3.0 for these scrubbers.

Parameter Monitored: ACIDITY/ALKALINITY

Upper Permit Limit: 3.0 pH (STANDARD) units

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-11: Compliance Demonstration**

**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement: 6 NYCRR 212-1.7 (b)**

**Item 1-11.1:**

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

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Emission Unit: F-00001  
Process: F10

Emission Source: CS003

Emission Unit: F-00001  
Process: F10

Emission Source: CS004

Emission Unit: F-00001  
Process: F10

Emission Source: CS005

**Item 1-11.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Scrubber pH for caustic scrubbers in Fab 8.1 Caustic Scrubber Bank 1 will be monitored and recorded on a continuous basis whenever the associated process equipment is operating except during quality assurance and routine maintenance activities. Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous monitoring.

Scrubber pH must be maintained at or below the maximum value established during the most recent stack test. If there has been no stack test, the parameter will be the manufacturer's recommended value. The current limit is a maximum pH of 4.5 for these scrubbers.

Parameter Monitored: ACIDITY/ALKALINITY

Upper Permit Limit: 4.5 pH (STANDARD) units

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-13: Compliance Demonstration**

**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement:6 NYCRR 212-1.7 (b)**

**Item 1-13.1:**

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: F-00001  
Process: F11

Emission Source: CS028

Emission Unit: F-00001  
Process: F11

Emission Source: CS029

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Emission Unit: F-00001

Process: F11

Emission Source: CS030

**Item 1-13.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Scrubber water recirculation flow rate for caustic scrubbers in the Extension Caustic Scrubber Bank 1 will be monitored and recorded on a continuous basis whenever the associated process equipment is operating except during quality assurance and routine maintenance activities.

Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous monitoring.

Scrubber water recirculation flow rate must be maintained at or above the minimum level established during the most recent stack test. If there has been no stack test, the parameter will be the manufacturer's recommended value.

The current limit is a minimum of 650 gallons per minute (gpm) for these scrubbers.

Parameter Monitored: FLOW RATE

Lower Permit Limit: 650 gallons per minute

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-14: Compliance Demonstration**

**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement: 6 NYCRR 212-1.7 (b)**

**Item 1-14.1:**

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: F-00001

Process: F11

Emission Source: CS471

Emission Unit: F-00001

Process: F11

Emission Source: CS472

Emission Unit: F-00001

Process: F11

Emission Source: CS473



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**Item 1-14.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Scrubber water recirculation flow rate for caustic scrubbers in the Extension Caustic Scrubber Bank 2 will be monitored and recorded on a continuous basis whenever the associated process equipment is operating except during quality assurance and routine maintenance activities.

Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous monitoring.

Scrubber water recirculation flow rate must be maintained at or above the minimum level established during the most recent stack test. If there has been no stack test, the parameter will be the manufacturer's recommended value.

The current limit is a minimum of 650 gallons per minute (gpm) for these scrubbers.

Parameter Monitored: FLOW RATE

Lower Permit Limit: 650 gallons per minute

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-15: Compliance Demonstration**

**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement: 6 NYCRR 212-1.7 (b)**

**Item 1-15.1:**

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: F-00001

Process: F11

Emission Source: CS028

Emission Unit: F-00001

Process: F11

Emission Source: CS029

Emission Unit: F-00001

Process: F11

Emission Source: CS030

**Item 1-15.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL



DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Scrubber pH for caustic scrubbers in Extension Caustic Scrubber Bank 1 will be monitored and recorded on a continuous basis whenever the associated process equipment is operating except during quality assurance and routine maintenance activities. Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous monitoring.

Scrubber pH must be maintained at or below the maximum value established during the most recent stack test. If there has been no stack test, the parameter will be the manufacturer's recommended value. The current limit is a maximum pH of 3.3 for these scrubbers.

Parameter Monitored: ACIDITY/ALKALINITY

Upper Permit Limit: 3.3 pH (STANDARD) units

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-16: Compliance Demonstration**

**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement: 6 NYCRR 212-2.4 (b)**

**Item 1-16.1:**

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: F-00001

Emission Unit: F-00004

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

**Item 1-16.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emissions of solid particulates are limited to less than 0.050 grains of particulates per cubic foot of exhaust gas, expressed at standard conditions on a dry gas basis.

Compliance testing will be conducted at the discretion of the department.



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Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.05 grains per dscf

Reference Test Method: Method 5

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST

METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 1-17: Compliance Demonstration**  
**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement:40CFR 60.48c(a), NSPS Subpart Dc**

**Item 1-17.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 1-17.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of each affected facility shall submit notification of the date of construction and actual startup, as provided by 40 CFR 60.7. This notification shall include the design heat input capacity of the affected unit and identification of the fuels to be combusted at the facility.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 26: Applicability**  
**Effective between the dates of 03/16/2015 and 03/15/2025**

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

**Item 26.1:**

Facilities that are area sources of HAP with industrial, commercial, or institutional boilers must comply with applicable portions of 40 CFR 63 JJJJJJ.

**Condition 27: Applicability**  
**Effective between the dates of 03/16/2015 and 03/15/2025**

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

**Item 27.1:**

Facilities that have reciprocating internal combustion engines must comply with applicable portions of 40 CFR 63 subpart ZZZZ.



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

**Condition 28: Compliance Demonstration**  
Effective between the dates of 03/16/2015 and 03/15/2025

**Applicable Federal Requirement:6 NYCRR 227-1.3 (a)**

**Item 28.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: B-00001

**Item 28.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

No person shall operate a stationary combustion installation which exhibits greater than 20 percent opacity (six minute average), except for one six-minute period per hour of not more than 27 percent opacity. Visible emissions monitoring will be conducted at the request of the Department to demonstrate compliance with this limit.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: method 9

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: 6 MINUTE AVERAGE

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 29: Compliance Demonstration**  
Effective between the dates of 03/16/2015 and 03/15/2025

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

**Item 29.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: B-00001

**Item 29.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

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Facilities with industrial, commercial, or institutional boilers must comply with applicable portions of 40 CFR 60 subpart Dc.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 1-18: Compliance Demonstration**  
**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement: 6 NYCRR 212-1.7 (b)**

**Item 1-18.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: F-00001

Process: F10

**Item 1-18.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

The oxidizer combustion chamber temperature for thermal oxidizers will be monitored and recorded on a continuous basis whenever the associated process equipment is operating, except during quality assurance and routine maintenance activities. Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous temperature monitoring.

Chamber temperature must be maintained at or above the minimum temperature established during the most recent stack test. If there has been no stack test, the minimum temperature will be the manufacturers recommended temperature. The current limit is a minimum temperature of 1295 degrees F for oxidizers in Processes F10.

Parameter Monitored: TEMPERATURE

Lower Permit Limit: 1295 degrees Fahrenheit

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-19: Compliance Demonstration**  
**Effective between the dates of 09/12/2016 and 03/15/2025**



**Applicable Federal Requirement:6 NYCRR 212-1.7 (b)**

**Item 1-19.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: F-00001  
Process: F10

**Item 1-19.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Scrubber water recirculation flow rate for acid scrubbers will be monitored and recorded on a continuous basis whenever the associated process equipment is operating except during quality assurance and routine maintenance activities. Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous monitoring.

Scrubber water recirculation flow rate must be maintained at or above the minimum level established during the most recent stack test. If there has been no stack test, the parameter will be the manufacturer's recommended value.

The current limit is a minimum of 720 gallons per minute (gpm) for scrubbers in Process F10.

Parameter Monitored: FLOW RATE

Lower Permit Limit: 720 gallons per minute

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-20: Compliance Demonstration**

**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement:6 NYCRR 212-1.7 (b)**

**Item 1-20.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: F-00001  
Process: F10

**Item 1-20.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Scrubber pH for acid scrubbers will be monitored and recorded on a continuous basis whenever the associated process equipment is operating except during quality assurance and routine maintenance activities. Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous monitoring.

Scrubber pH must be maintained at or above the minimum value established during the most recent stack test. If there has been no stack test, the parameter will be the manufacturer's recommended value. The current limit is a minimum pH of 7 for scrubbers in Process F10.

Parameter Monitored: ACIDITY/ALKALINITY

Lower Permit Limit: 7 pH (STANDARD) units

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-21: Compliance Demonstration**  
**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement: 6 NYCRR 212-1.7 (b)**

**Item 1-21.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: F-00001

Process: F11

**Item 1-21.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Scrubber pH for acid scrubbers will be monitored and recorded on a continuous basis whenever the associated process equipment is operating except during quality assurance and routine maintenance activities. Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous monitoring.

Scrubber pH must be maintained at or above the minimum

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value established during the most recent stack test. If there has been no stack test, the parameter will be the manufacturer's recommended value. The current limit is a minimum pH of 10 for scrubbers in Process F11.

Parameter Monitored: ACIDITY/ALKALINITY

Lower Permit Limit: 10 pH (STANDARD) units

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-22: Compliance Demonstration**

**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement:6 NYCRR 212-1.7 (b)**

**Item 1-22.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: F-00001

Process: F11

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

**Item 1-22.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL

DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The oxidizer combustion chamber temperature for thermal oxidizers will be monitored and recorded on a continuous basis whenever the associated process equipment is operating, except during quality assurance and routine maintenance activities. Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous temperature monitoring.

Chamber temperature must be maintained at or above the minimum temperature established during the most recent stack test. If there has been no stack test, the minimum temperature will be the manufacturers recommended temperature. The current limit is a minimum temperature of 1295 degrees F for oxidizers in Processes F11.

Parameter Monitored: TEMPERATURE

Lower Permit Limit: 1295 degrees Fahrenheit

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING



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DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-23: Compliance Demonstration**

**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement:6 NYCRR 212-1.7 (b)**

**Item 1-23.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: F-00001

Process: F11

**Item 1-23.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Scrubber water recirculation flow rate for acid scrubbers will be monitored and recorded on a continuous basis whenever the associated process equipment is operating except during quality assurance and routine maintenance activities. Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous monitoring.

Scrubber water recirculation flow rate must be maintained at or above the minimum level established during the most recent stack test. If there has been no stack test, the parameter will be the manufacturer's recommended value.

The current limit is a minimum of 650 gpm for scrubbers in Process F11.

Parameter Monitored: FLOW RATE

Lower Permit Limit: 650 gallons per minute

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-24: Compliance Demonstration**

**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement:6 NYCRR 212-1.7 (b)**

**Item 1-24.1:**

The Compliance Demonstration activity will be performed for:

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Emission Unit: F-00004  
Process: 407

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

**Item 1-24.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

The oxidizer combustion chamber temperature for thermal oxidizers will be monitored and recorded on a continuous basis whenever the associated process equipment is operating, except during quality assurance and routine maintenance activities. Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous temperature monitoring.

Chamber temperature must be maintained at or above the minimum temperature established during the most recent stack test. If there has been no stack test, the minimum temperature will be the manufacturers recommended temperature. The minimum temperature for the oxidizers in process 407 has not been determined.

Parameter Monitored: TEMPERATURE

Lower Permit Limit: tbd degrees Fahrenheit

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-25: Compliance Demonstration**

**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement:6 NYCRR 212-1.7 (b)**

**Item 1-25.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: F-00004  
Process: 407

**Item 1-25.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL



DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Scrubber water recirculation flow rate for caustic scrubbers will be monitored and recorded on a continuous basis whenever the associated process equipment is operating except during quality assurance and routine maintenance activities. Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous monitoring.

Scrubber water recirculation flow rate must be maintained at or above the minimum level established during the most recent stack test. If there has been no stack test, the parameter will be the manufacturer's recommended value.

The current limit is a minimum of 100 gpm for scrubbers in Process 407.

Parameter Monitored: FLOW RATE

Lower Permit Limit: 100 gallons per minute

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-26: Compliance Demonstration**

**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable Federal Requirement: 6 NYCRR 212-1.7 (b)**

**Item 1-26.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: F-00004

Process: 407

**Item 1-26.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Scrubber pH for caustic scrubbers will be monitored and recorded on a continuous basis whenever the associated process equipment is operating except during quality assurance and routine maintenance activities. Records of monitoring data and support information must be retained for a period of at least 5 years from the date of monitoring. Support information includes all calibration and maintenance records and all recordings of continuous monitoring.

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Scrubber pH must be maintained at or below the maximum value established during the most recent stack test. If there has been no stack test, the parameter will be the manufacturer's recommended value. The current limit is a maximum pH of 4.0 for scrubbers in Process 407.

Parameter Monitored: ACIDITY/ALKALINITY

Upper Permit Limit: 4 pH (STANDARD) units

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY



**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: 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 Facilities With State Facility Permits - 6 NYCRR 201-1.10 (a)**

Where facility owners and/or operators keep records pursuant to compliance with the requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of 6 NYCRR Subpart 201-7, the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records.



Facility owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department.

**Item C: 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 only enforceable.**

**Condition 39: Contaminant List**  
**Effective between the dates of 03/16/2015 and 03/15/2025**

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

**Item 39.1:**

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

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

CAS No: 007446-09-5  
Name: SULFUR DIOXIDE

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

CAS No: 007664-39-3



Name: HYDROGEN FLUORIDE

CAS No: 007782-50-5

Name: CHLORINE

CAS No: 0NY075-00-0

Name: PARTICULATES

CAS No: 0NY100-00-0

Name: TOTAL HAP

CAS No: 0NY210-00-0

Name: OXIDES OF NITROGEN

CAS No: 0NY998-00-0

Name: VOC

**Condition 40: Malfunctions and start-up/shutdown activities**  
**Effective between the dates of 03/16/2015 and 03/15/2025**

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

**Item 40.1:**

(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 41: Emission Unit Definition**  
**Effective between the dates of 03/16/2015 and 03/15/2025**

**Applicable State Requirement:6 NYCRR Subpart 201-5**

**Item 41.1(From Mod 2):**

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

Emission Unit: F-00001

Emission Unit Description:

This unit consists of the various fabrication operations at the facility which utilize products containing acids, caustics, volatile organic compounds (VOCs) and hazardous air pollutants. Acid and caustic emissions are controlled by scrubbers and VOC emissions are controlled by thermal oxidizers. Operations associated with this emission unit are located in the FAB Building and HPM Dispense Building.

Building(s): CUB  
FAB  
HPM

**Item 41.2(From Mod 2):**

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

Emission Unit: F-00004

Emission Unit Description:

Various fabrication operations at the facility which utilize products containing acids, caustics, VOCs and HAPs. Acid and caustic emissions are controlled by scrubbers and VOCs are controlled by oxidizers. Operations associated with this emission unit are located in the TDC building.

Building(s): MCUB  
TDC

**Item 41.3(From Mod 1):**

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

Emission Unit: 0-THERS

Emission Unit Description:

This unit consists of waste storage and treatment tanks installed in the CUB building, select chemical storage tanks in excess of 10,000 gallons capacity and wastewater collection tanks within the FAB and TDC buildings. These



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operations are anticipated to exhaust at only trace levels. Operations in the CUB building include acid scrubbers to control emissions.

Building(s): CUB  
FAB

**Item 41.4(From Mod 1):**

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

Emission Unit: B-00001

Emission Unit Description:

Fifteen boilers, sized 29 mmBtu/hr to 59 mmBtu/hr, provide hot water for process and comfort heat. Four are dual fueled (Number 2 oil or natural gas) and the remainder fire natural gas only. There are also combustion units which are exempt from permitting - smaller boilers and diesel fired emergency generators.

Building(s): BGY2  
CUB  
MCUB

**Item 41.5(From Mod 1):**

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

Emission Unit: C-00001

Emission Unit Description:

This emission unit consists of twenty-two (22) Continuous Power System generator units located in the electrical service buildings (ESB and ESB2). At ESB, each unit is a 2280 KW unit by MTU Model 16V 4000 G43. At ESB2, each unit is a 2280 KW unit by MTU Model 16V 4000 G83. All engines are certified Tier 2. These engines are used for emergency power and for demand response.

Building(s): ESB  
ESB2

**Condition 42: Renewal deadlines for state facility permits  
Effective between the dates of 03/16/2015 and 03/15/2025**

**Applicable State Requirement:6 NYCRR 201-5.2 (c)**

**Item 42.1:**

The owner or operator of a facility having an issued state facility 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.

**Condition 43: Compliance Demonstration  
Effective between the dates of 03/16/2015 and 03/15/2025**

**Applicable State Requirement:6 NYCRR 201-5.3 (c)**

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**Item 43.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 43.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Any reports or submissions required by this permit shall be submitted to the Regional Air Pollution Control Engineer (RAPCE) at the following address:

Division of Air Resources  
NYS Dept. of Environmental Conservation  
Region 5  
232 Golf Course Rd.  
Warrensburg, NY 12885

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 44: Compliance Demonstration**  
**Effective between the dates of 03/16/2015 and 03/15/2025**

**Applicable State Requirement:6 NYCRR 201-5.4 (e)**

**Item 44.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 44.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The objective of this condition is to maximize operational flexibility at the facility by building into the State Facility Permit the capability to make certain changes using a protocol. Changes made under an approved protocol are not subject to the permit modification provisions under Part 201-5.4. The protocol described below applies only to changes which do not violate applicable requirements or contravene federally enforceable monitoring, recordkeeping, reporting or compliance certification permit terms and conditions. Further, the changes are not modifications under any provision of Title 1 of the Act and do not exceed emissions allowable under the permit.

The owner or operator will evaluate the impact of proposed changes in the aggregate use and emissions of a



contaminant. The impact of operational changes on fence line concentrations will be evaluated using approved air dispersion model emission factors. The expected concentrations at the fence line will be compared against Air Guideline Concentration (AGC) values as established in DAR-1:

- a) Case 1: projected contaminant emission impact is less than 10% of the AGC. The owner or operator may proceed with the change.
- b) Case 2: projected contaminant emission impact is greater than 10% but less than 30% of the AGC. The owner or operator will include a summary of these changes in the annual compliance report.
- c) Case 3: Projected contaminant emission impact is greater than 30% and less than 100% of the AGC. The owner or operator shall submit notification to the Department at least 7 days prior to the anticipated start date. The owner or operator may evaluate and submit to the Department the impact of the proposed change with an approved dispersion model using site specific factors.

In cases where an AGC or interim AGC has not been developed for a specific contaminant, the guidelines detailed in DAR-1 will be followed.

Alterations and maintenance of equipment:

- 1) Exhaust system changes:
  - a) maintenance or replacement with in-kind control equipment components may proceed by the owner or operator.
  - b) Installation or alteration of any permitted air cleaning installations, device or control equipment require the owner or operator to submit written notification to the Department at least 30 days in advance.
- 2) Emission source changes:
  - a) The owner or operator shall maintain a current emission source list. An update to the emission source list shall be included with the annual capping certification.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2016.

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

**Condition 45: Visible Emissions Limited**  
**Effective between the dates of 03/16/2015 and 03/15/2025**



**Applicable State Requirement:6 NYCRR 211.2**

**Item 45.1:**

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 1-27: Compliance Demonstration**  
**Effective between the dates of 09/12/2016 and 03/15/2025**

**Applicable State Requirement:6 NYCRR 212-2.3 (b)**

**Item 1-27.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 1-27.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Processes controlled by oxidizers may operate without the oxidizer in operation (or operating below baseline temperature) for a maximum of 2% of the time. The compliance demonstration for this condition shall be based on the Oxidizer Operating Ratio, which is calculated by summing the deficient oxidizer hours and dividing by the required oxidizer hours. Deficient oxidizer hours = the number of hours during the time period when a required oxidizer is operating below the required combustion temperature. Required operating hours = the number of hours of production multiplied by the number of required oxidizers. One oxidizer is required when solvent exhaust flow is less than the rated capacity (in CFM) of one oxidizer; two oxidizers are required when solvent exhaust flow is greater than the rated capacity (in CFM) of one oxidizer. This provision shall not limit any rights under 6NYCRR 201-1.4 and 1.5.

Baseline temperature is established by the most recent emissions test (or manufacturers recommendation if a stack test has not yet been conducted).

Parameter Monitored: OPERATING HOURS

Upper Permit Limit: 2 percent

Monitoring Frequency: MONTHLY

Averaging Method: ANNUAL MAXIMUM ROLLED MONTHLY

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 48: Compliance Demonstration**  
**Effective between the dates of 03/16/2015 and 03/15/2025**

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**Applicable State Requirement:6 NYCRR 225-1.2**

**Item 48.1:**

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007446-09-5      SULFUR DIOXIDE

**Item 48.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Owners or operators of a stationary combustion installation that fires distillate oil are limited to the purchase of distillate oil with 0.0015 percent sulfur by weight.

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 0.0015 percent by weight

Monitoring Frequency: PER BATCH OF PRODUCT/RAW MATERIAL  
CHANGE

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

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

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

**Condition 49:      Emission Point Definition By Emission Unit  
Effective between the dates of 03/16/2015 and 03/15/2025**

**Applicable State Requirement:6 NYCRR Subpart 201-5**

**Item 49.1(From Mod 2):**

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

Emission Unit:    F-00001

Emission Point:    00001

Height (ft.): 96

Diameter (in.): 52

NYTMN (km.): 4758.195

NYTME (km.): 601.348

Building: FAB

Emission Point:    00002

Height (ft.): 96

Diameter (in.): 40

NYTMN (km.): 4758.195

NYTME (km.): 601.348

Building: FAB

Emission Point:    00003

Height (ft.): 96

Diameter (in.): 40

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NYTMN (km.): 4758.21    NYTME (km.): 601.339    Building: FAB

Emission Point: 00004  
Height (ft.): 96    Diameter (in.): 40  
NYTMN (km.): 4758.215    NYTME (km.): 601.339    Building: FAB

Emission Point: 00005  
Height (ft.): 96    Diameter (in.): 40  
NYTMN (km.): 4758.218    NYTME (km.): 601.338    Building: FAB

Emission Point: 00006  
Height (ft.): 96    Diameter (in.): 48  
NYTMN (km.): 4758.235    NYTME (km.): 601.337    Building: FAB

Emission Point: 00007  
Height (ft.): 96    Diameter (in.): 48  
NYTMN (km.): 4758.238    NYTME (km.): 601.337    Building: FAB

Emission Point: 00008  
Height (ft.): 96    Diameter (in.): 48  
NYTMN (km.): 4758.244    NYTME (km.): 601.336    Building: FAB

Emission Point: 00009  
Height (ft.): 96    Diameter (in.): 48  
NYTMN (km.): 4758.249    NYTME (km.): 601.336    Building: FAB

Emission Point: 00010  
Height (ft.): 96    Diameter (in.): 48  
NYTMN (km.): 4758.253    NYTME (km.): 601.336    Building: FAB

Emission Point: 00011  
Height (ft.): 96    Diameter (in.): 48  
NYTMN (km.): 4758.259    NYTME (km.): 601.335    Building: FAB

Emission Point: 0001A  
Height (ft.): 96    Diameter (in.): 26  
NYTMN (km.): 4758.195    NYTME (km.): 601.348    Building: FAB

Emission Point: 00024  
Height (ft.): 96    Diameter (in.): 58  
NYTMN (km.): 4758.419    NYTME (km.): 601.336    Building: FAB

Emission Point: 00025  
Height (ft.): 96    Diameter (in.): 58  
NYTMN (km.): 4758.419    NYTME (km.): 601.332    Building: FAB

Emission Point: 00026  
Height (ft.): 96    Diameter (in.): 58  
NYTMN (km.): 4758.418    NYTME (km.): 601.328    Building: FAB

Emission Point: 00027  
Height (ft.): 96    Diameter (in.): 58

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NYTMN (km.): 4758.418 NYTME (km.): 601.324 Building: FAB

Emission Point: 00028  
Height (ft.): 96 Diameter (in.): 50  
NYTMN (km.): 4758.424 NYTME (km.): 601.324 Building: FAB

Emission Point: 00029  
Height (ft.): 96 Diameter (in.): 50  
NYTMN (km.): 4758.43 NYTME (km.): 601.323 Building: FAB

Emission Point: 0002A  
Height (ft.): 96 Diameter (in.): 26  
NYTMN (km.): 4758.2 NYTME (km.): 601.35 Building: FAB

Emission Point: 00030  
Height (ft.): 96 Diameter (in.): 50  
NYTMN (km.): 4758.434 NYTME (km.): 601.323 Building: FAB

Emission Point: 00088  
Height (ft.): 96 Diameter (in.): 40  
NYTMN (km.): 4758.192 NYTME (km.): 601.348 Building: FAB

Emission Point: 00111  
Height (ft.): 96 Diameter (in.): 40  
NYTMN (km.): 4758.443 NYTME (km.): 601.332 Building: FAB

Emission Point: 00112  
Height (ft.): 96 Diameter (in.): 40  
NYTMN (km.): 4758.477 NYTME (km.): 601.331 Building: FAB

Emission Point: 00113  
Height (ft.): 96 Diameter (in.): 40  
NYTMN (km.): 4758.453 NYTME (km.): 601.331 Building: FAB

Emission Point: 00114  
Height (ft.): 96 Diameter (in.): 18  
NYTMN (km.): 4758.445 NYTME (km.): 601.334 Building: FAB

Emission Point: 00115  
Height (ft.): 96 Diameter (in.): 18  
NYTMN (km.): 4758.448 NYTME (km.): 601.329 Building: FAB

Emission Point: 0011A  
Height (ft.): 96 Diameter (in.): 48  
NYTMN (km.): 4758.264 NYTME (km.): 601.335 Building: FAB

Emission Point: 00441  
Height (ft.): 96 Diameter (in.): 18  
NYTMN (km.): 4758.444 NYTME (km.): 601.33 Building: FAB

Emission Point: 00468  
Height (ft.): 96 Diameter (in.): 38



NYTMN (km.): 4758.223 NYTME (km.): 601.338 Building: FAB

Emission Point: 00469  
Height (ft.): 96 Diameter (in.): 38  
NYTMN (km.): 4758.227 NYTME (km.): 601.338 Building: FAB

Emission Point: 00470  
Height (ft.): 96 Diameter (in.): 38  
NYTMN (km.): 4758.231 NYTME (km.): 601.337 Building: FAB

Emission Point: 00471  
Height (ft.): 97 Diameter (in.): 52  
NYTMN (km.): 4758.47 NYTME (km.): 601.38 Building: FAB

Emission Point: 00472  
Height (ft.): 97 Diameter (in.): 52  
NYTMN (km.): 4758.47 NYTME (km.): 601.41 Building: FAB

Emission Point: 00473  
Height (ft.): 97 Diameter (in.): 52  
NYTMN (km.): 4758.48 NYTME (km.): 601.43 Building: FAB

Emission Point: 00478  
Height (ft.): 64 Diameter (in.): 14  
NYTMN (km.): 4758.31 NYTME (km.): 601.287 Building: HPM

Emission Point: 00479  
Height (ft.): 64 Diameter (in.): 14  
NYTMN (km.): 4758.313 NYTME (km.): 601.287 Building: HPM

Emission Point: 00480  
Height (ft.): 64 Diameter (in.): 14  
NYTMN (km.): 4758.315 NYTME (km.): 601.287 Building: HPM

Emission Point: 0088A  
Height (ft.): 96 Diameter (in.): 40  
NYTMN (km.): 4758.2 NYTME (km.): 601.35 Building: FAB

**Item 49.2(From Mod 2):**

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

Emission Unit: F-00004

Emission Point: 00118  
Height (ft.): 110 Diameter (in.): 26  
NYTMN (km.): 4758.243 NYTME (km.): 601.655 Building: TDC

Emission Point: 00119  
Height (ft.): 110 Diameter (in.): 26  
NYTMN (km.): 4758.238 NYTME (km.): 601.655 Building: TDC

Emission Point: 00120





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Height (ft.): 110                      Diameter (in.): 26  
 NYTMN (km.): 4758.23              NYTME (km.): 601.656      Building: TDC

Emission Point: 00121  
 Height (ft.): 110                      Diameter (in.): 12  
 NYTMN (km.): 4758.205              NYTME (km.): 601.661      Building: TDC

Emission Point: 00122  
 Height (ft.): 110                      Diameter (in.): 12  
 NYTMN (km.): 4758.202              NYTME (km.): 601.662      Building: TDC

Emission Point: 00123  
 Height (ft.): 110                      Diameter (in.): 12  
 NYTMN (km.): 4758.198              NYTME (km.): 601.661      Building: TDC

Emission Point: 00124  
 Height (ft.): 110                      Diameter (in.): 38  
 NYTMN (km.): 4758.224              NYTME (km.): 601.656      Building: TDC

Emission Point: 00125  
 Height (ft.): 110                      Diameter (in.): 38  
 NYTMN (km.): 4758.219              NYTME (km.): 601.656      Building: TDC

Emission Point: 00126  
 Height (ft.): 110                      Diameter (in.): 38  
 NYTMN (km.): 4758.212              NYTME (km.): 601.656      Building: TDC

Emission Point: 00127  
 Height (ft.): 110                      Diameter (in.): 38  
 NYTMN (km.): 4758.207              NYTME (km.): 601.656      Building: TDC

Emission Point: 0127A  
 Height (ft.): 110                      Diameter (in.): 38  
 NYTMN (km.): 4758.228              NYTME (km.): 601.655      Building: TDC

**Item 49.3(From Mod 1):**

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

Emission Unit: 0-THERS

Emission Point: 00060  
 Height (ft.): 58                      Diameter (in.): 30  
 NYTMN (km.): 4758.379              NYTME (km.): 601.501      Building: CUB

Emission Point: 00061  
 Height (ft.): 58                      Diameter (in.): 30  
 NYTMN (km.): 4758.365              NYTME (km.): 601.544      Building: CUB

Emission Point: 00069  
 Height (ft.): 58                      Diameter (in.): 30  
 NYTMN (km.): 4758.363              NYTME (km.): 601.538      Building: CUB

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Emission Point: 00070  
Height (ft.): 58 Diameter (in.): 30  
NYTMN (km.): 4758.365 NYTME (km.): 601.545 Building: CUB

**Item 49.4(From Mod 1):**

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

Emission Unit: B-00001

Emission Point: 00058  
Height (ft.): 33 Diameter (in.): 40  
NYTMN (km.): 4758.265 NYTME (km.): 601.516 Building: CUB

Emission Point: 00059  
Height (ft.): 33 Diameter (in.): 40  
NYTMN (km.): 4758.28 NYTME (km.): 601.514 Building: CUB

Emission Point: 00063  
Height (ft.): 33 Diameter (in.): 40  
NYTMN (km.): 4758.265 NYTME (km.): 601.526 Building: CUB

Emission Point: 00064  
Height (ft.): 33 Diameter (in.): 28  
NYTMN (km.): 4758.281 NYTME (km.): 601.525 Building: CUB

Emission Point: 00066  
Height (ft.): 33 Diameter (in.): 28  
NYTMN (km.): 4758.266 NYTME (km.): 601.537 Building: CUB

Emission Point: 00067  
Height (ft.): 33 Diameter (in.): 40  
NYTMN (km.): 4758.282 NYTME (km.): 601.536 Building: CUB

Emission Point: 00104  
Height (ft.): 93 Diameter (in.): 36  
NYTMN (km.): 4758.305 NYTME (km.): 601.648 Building: MCUB

Emission Point: 00105  
Height (ft.): 93 Diameter (in.): 36  
NYTMN (km.): 4758.31 NYTME (km.): 601.645 Building: MCUB

Emission Point: 00106  
Height (ft.): 93 Diameter (in.): 36  
NYTMN (km.): 4758.316 NYTME (km.): 601.648 Building: MCUB

Emission Point: 00107  
Height (ft.): 93 Diameter (in.): 36  
NYTMN (km.): 4758.322 NYTME (km.): 601.647 Building: MCUB

Emission Point: 00108  
Height (ft.): 93 Diameter (in.): 36  
NYTMN (km.): 4758.328 NYTME (km.): 601.647 Building: MCUB

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Emission Point: 00109  
Height (ft.): 93 Diameter (in.): 36  
NYTMN (km.): 4758.334 NYTME (km.): 601.646 Building: MCUB

Emission Point: 00110  
Height (ft.): 93 Diameter (in.): 36  
NYTMN (km.): 4758.34 NYTME (km.): 601.646 Building: MCUB

Emission Point: BGYB1  
Height (ft.): 18 Diameter (in.): 20  
NYTMN (km.): 4758.41 NYTME (km.): 601.74 Building: BGY2

Emission Point: BGYB2  
Height (ft.): 18 Diameter (in.): 20  
NYTMN (km.): 4758.41 NYTME (km.): 601.74 Building: BGY2

**Item 49.5(From Mod 1):**

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

Emission Unit: C-00001

Emission Point: 00131  
Height (ft.): 33 Diameter (in.): 18  
NYTMN (km.): 4758.51 NYTME (km.): 601.35 Building: ESB

Emission Point: 00132  
Height (ft.): 33 Diameter (in.): 18  
NYTMN (km.): 4758.525 NYTME (km.): 601.349 Building: ESB

Emission Point: 00133  
Height (ft.): 33 Diameter (in.): 18  
NYTMN (km.): 4758.51 NYTME (km.): 601.346 Building: ESB

Emission Point: 00134  
Height (ft.): 33 Diameter (in.): 18  
NYTMN (km.): 4758.525 NYTME (km.): 601.346 Building: ESB

Emission Point: 00135  
Height (ft.): 33 Diameter (in.): 18  
NYTMN (km.): 4758.51 NYTME (km.): 601.343 Building: ESB

Emission Point: 00136  
Height (ft.): 33 Diameter (in.): 18  
NYTMN (km.): 4758.524 NYTME (km.): 601.343 Building: ESB

Emission Point: 00137  
Height (ft.): 33 Diameter (in.): 18  
NYTMN (km.): 4758.509 NYTME (km.): 601.335 Building: ESB

Emission Point: 00138  
Height (ft.): 33 Diameter (in.): 18

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NYTMN (km.): 4758.523 NYTME (km.): 601.334 Building: ESB

Emission Point: 00139  
Height (ft.): 33 Diameter (in.): 18  
NYTMN (km.): 4758.508 NYTME (km.): 601.331 Building: ESB

Emission Point: 00140  
Height (ft.): 33 Diameter (in.): 18  
NYTMN (km.): 4758.523 NYTME (km.): 601.331 Building: ESB

Emission Point: 00141  
Height (ft.): 33 Diameter (in.): 18  
NYTMN (km.): 4758.508 NYTME (km.): 601.328 Building: ESB

Emission Point: 00142  
Height (ft.): 33 Diameter (in.): 18  
NYTMN (km.): 4758.523 NYTME (km.): 601.327 Building: ESB

Emission Point: 00241  
Height (ft.): 38 Diameter (in.): 18  
NYTMN (km.): 4758.388 NYTME (km.): 601.616 Building: ESB2

Emission Point: 00242  
Height (ft.): 38 Diameter (in.): 18  
NYTMN (km.): 4758.388 NYTME (km.): 601.619 Building: ESB2

Emission Point: 00243  
Height (ft.): 38 Diameter (in.): 18  
NYTMN (km.): 4758.388 NYTME (km.): 601.624 Building: ESB2

Emission Point: 00244  
Height (ft.): 38 Diameter (in.): 18  
NYTMN (km.): 4758.389 NYTME (km.): 601.628 Building: ESB2

Emission Point: 00245  
Height (ft.): 38 Diameter (in.): 18  
NYTMN (km.): 4758.389 NYTME (km.): 601.632 Building: ESB2

Emission Point: 00246  
Height (ft.): 38 Diameter (in.): 18  
NYTMN (km.): 4758.389 NYTME (km.): 601.636 Building: ESB2

Emission Point: 00247  
Height (ft.): 38 Diameter (in.): 18  
NYTMN (km.): 4758.389 NYTME (km.): 601.64 Building: ESB2

Emission Point: 00248  
Height (ft.): 38 Diameter (in.): 18  
NYTMN (km.): 4758.389 NYTME (km.): 601.644 Building: ESB2

Emission Point: 00249  
Height (ft.): 38 Diameter (in.): 18



NYTMN (km.): 4758.39    NYTME (km.): 601.648    Building: ESB2  
Emission Point: 00250  
Height (ft.): 38    Diameter (in.): 18  
NYTMN (km.): 4758.39    NYTME (km.): 601.652    Building: ESB2

**Condition 50: Process Definition By Emission Unit**  
**Effective between the dates of 03/16/2015 and 03/15/2025**

**Applicable State Requirement:6 NYCRR Subpart 201-5**

**Item 50.1(From Mod 2):**

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

Emission Unit: F-00001  
Process: F10    Source Classification Code: 3-13-065-00  
Process Description:

Emission control device operations for Fabrication processes at FAB 8 Module 1. Emission control devices include acid scrubbers, caustic scrubbers and thermal oxidizers with concentrators.

Emission Source/Control: AS006 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: AS007 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: AS008 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: AS009 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: AS010 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: AS011 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: AS11A - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS003 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS004 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS005 - Control  
Control Type: WET SCRUBBER

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Emission Source/Control: CS468 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS469 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS470 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS478 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS479 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS480 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: OX001 - Control  
Control Type: THERMAL OXIDATION

Emission Source/Control: OX002 - Control  
Control Type: THERMAL OXIDATION

Emission Source/Control: OX01A - Control  
Control Type: THERMAL OXIDATION

Emission Source/Control: OX02A - Control  
Control Type: THERMAL OXIDATION

Emission Source/Control: OX088 - Control  
Control Type: THERMAL OXIDATION

Emission Source/Control: OX88A - Control  
Control Type: THERMAL OXIDATION

Emission Source/Control: 00F10 - Process

Emission Source/Control: TANKA - Process

Emission Source/Control: TANKB - Process

**Item 50.2(From Mod 2):**

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

Emission Unit: F-00004

Process: 407

Source Classification Code: 3-13-065-00

Process Description:

Emission control devices for Fabrication processes.  
These include six acid scrubbers, three caustic scrubbers  
and three rotary concentrator thermal oxidizers.



Emission Source/Control: A127A - Control  
Control Type: WET SCRUBBER

Emission Source/Control: AS124 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: AS125 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: AS126 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: AS127 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS121 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS122 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS123 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: OX118 - Control  
Control Type: THERMAL OXIDATION

Emission Source/Control: OX119 - Control  
Control Type: THERMAL OXIDATION

Emission Source/Control: OX120 - Control  
Control Type: THERMAL OXIDATION

Emission Source/Control: 00F07 - Process

**Item 50.3(From Mod 1):**

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

Emission Unit: 0-THERS

Process: OTH

Source Classification Code: 3-13-065-00

Process Description:

This unit consists of waste storage and treatment tanks installed in the CUB building, select chemical storage tanks in excess of 10,000 gallons capacity and wastewater collection tanks within the FAB and TDC buildings. These operations are anticipated to exhaust at only trace levels, and the operations in the CUB include acid scrubbers to control emissions.

Emission Source/Control: OTH60 - Control  
Control Type: WET SCRUBBER







Design Capacity: 29.1 million Btu per hour

**Item 50.6(From Mod 1):**

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

Emission Unit: B-00001  
Process: BT1 Source Classification Code: 1-02-004-02  
Process Description: Operation of dual fuel boilers located in MCUB.

Emission Source/Control: B4104 - Combustion  
Design Capacity: 59 million Btu per hour

Emission Source/Control: B4105 - Combustion  
Design Capacity: 59 million Btu per hour

**Item 50.7(From Mod 1):**

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

Emission Unit: B-00001  
Process: BT2 Source Classification Code: 1-03-006-02  
Process Description: Natural gas fired boilers located in MCUB

Emission Source/Control: B4104 - Combustion  
Design Capacity: 59 million Btu per hour

Emission Source/Control: B4105 - Combustion  
Design Capacity: 59 million Btu per hour

Emission Source/Control: B4106 - Combustion  
Design Capacity: 59 million Btu per hour

Emission Source/Control: B4107 - Combustion  
Design Capacity: 59 million Btu per hour

Emission Source/Control: B4108 - Combustion  
Design Capacity: 59 million Btu per hour

Emission Source/Control: B4109 - Combustion  
Design Capacity: 59 million Btu per hour

Emission Source/Control: B4110 - Combustion  
Design Capacity: 59 million Btu per hour

**Item 50.8(From Mod 1):**

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

Emission Unit: B-00001  
Process: BT3 Source Classification Code: 1-02-006-02  
Process Description:  
Operation of boilers supporting vaporizer in Bulk Gas  
yard #2.

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Emission Source/Control: B4111 - Combustion  
Design Capacity: 25 million Btu per hour

Emission Source/Control: B4112 - Combustion  
Design Capacity: 25 million Btu per hour

**Item 50.9(From Mod 1):**

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

Emission Unit: C-00001

Process: C01

Source Classification Code: 2-01-001-02

Process Description:

This process consists of twelve (12) continuous power system generator units located in the Electrical Systems Building. Each unit is a 2280 KW unit by MTU, Model 16V 4000 G43.

Emission Source/Control: C1A01 - Combustion  
Design Capacity: 2,280 kilowatts

Emission Source/Control: C1A02 - Combustion  
Design Capacity: 2,280 kilowatts

Emission Source/Control: C1A03 - Combustion  
Design Capacity: 2,280 kilowatts

Emission Source/Control: C1A04 - Combustion  
Design Capacity: 2,280 kilowatts

Emission Source/Control: C1A05 - Combustion  
Design Capacity: 2,280 kilowatts

Emission Source/Control: C1A06 - Combustion  
Design Capacity: 2,280 kilowatts

Emission Source/Control: C1B01 - Combustion  
Design Capacity: 2,280 kilowatts

Emission Source/Control: C1B02 - Combustion  
Design Capacity: 2,280 kilowatts

Emission Source/Control: C1B03 - Combustion  
Design Capacity: 2,280 kilowatts

Emission Source/Control: C1B04 - Combustion  
Design Capacity: 2,280 kilowatts

Emission Source/Control: C1B05 - Combustion  
Design Capacity: 2,280 kilowatts

Emission Source/Control: C1B06 - Combustion  
Design Capacity: 2,280 kilowatts



**Item 50.10(From Mod 1):**

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

Emission Unit: C-00001

Process: C02

Source Classification Code: 2-01-001-02

Process Description:

This process consists of ten (10) continuous power system generator units located in the Electrical Systems Building  
2. Each unit is a 2280 KW unit by MTU, Model 16V 4000 G83.

Emission Source/Control: C2G01 - Combustion

Design Capacity: 2,280 kilowatts

Emission Source/Control: C2G02 - Combustion

Design Capacity: 2,280 kilowatts

Emission Source/Control: C2G03 - Combustion

Design Capacity: 2,280 kilowatts

Emission Source/Control: C2G04 - Combustion

Design Capacity: 2,280 kilowatts

Emission Source/Control: C2G05 - Combustion

Design Capacity: 2,280 kilowatts

Emission Source/Control: C2G06 - Combustion

Design Capacity: 2,280 kilowatts

Emission Source/Control: C2G07 - Combustion

Design Capacity: 2,280 kilowatts

Emission Source/Control: C2G08 - Combustion

Design Capacity: 2,280 kilowatts

Emission Source/Control: C2G09 - Combustion

Design Capacity: 2,280 kilowatts

Emission Source/Control: C2G10 - Combustion

Design Capacity: 2,280 kilowatts

**Item 50.11(From Mod 1):**

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

Emission Unit: F-00001

Process: F01

Source Classification Code: 3-13-065-00

Process Description:

Fabrication processes consisting of chemical mechanical planarization operations.

Emission Source/Control: CM001 - Process



**Item 50.12(From Mod 1):**

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

Emission Unit: F-00001  
Process: F02 Source Classification Code: 3-13-065-00  
Process Description:  
Fabrication processes consisting of metal plating operations.

Emission Source/Control: PL001 - Process

**Item 50.13(From Mod 1):**

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

Emission Unit: F-00001  
Process: F03 Source Classification Code: 3-13-065-00  
Process Description:  
Fabrication processes consisting of etch operations.

Emission Source/Control: ET001 - Process

**Item 50.14(From Mod 1):**

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

Emission Unit: F-00001  
Process: F04 Source Classification Code: 3-13-065-00  
Process Description:  
Fabrication processes consisting of photolithography operations.

Emission Source/Control: PH001 - Process

**Item 50.15(From Mod 1):**

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

Emission Unit: F-00001  
Process: F05 Source Classification Code: 3-13-065-00  
Process Description:  
Fabrication processes consisting of diffusion operations.

Emission Source/Control: DF001 - Process

**Item 50.16(From Mod 1):**

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

Emission Unit: F-00001  
Process: F07 Source Classification Code: 3-13-065-00  
Process Description:  
Fabrication processes consisting of thin film operations.

Emission Source/Control: TF001 - Process

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**Item 50.17(From Mod 1):**

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

Emission Unit: F-00001

Process: F11

Source Classification Code: 3-13-065-00

Process Description:

Emission control device operations for fabrication processes. Emission control devices include acid scrubbers, caustic scrubbers and thermal oxidizers with concentrators. These devices control emissions from process sources located in 8.1 extension area.

Emission Source/Control: AS024 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: AS025 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: AS026 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: AS027 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS028 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS029 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS030 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS471 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS472 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: CS473 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: OX111 - Control  
Control Type: THERMAL OXIDATION

Emission Source/Control: OX112 - Control  
Control Type: THERMAL OXIDATION

Emission Source/Control: OX113 - Control  
Control Type: THERMAL OXIDATION





