



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

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: KEVIN R BLISS
NYSDEC - WARRENSBURG SUBOFFICE
232 GOLF COURSE RD
WARRENSBURG, NY 12885-1172

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



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
- 1-4 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-5 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-6 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-7 6 NYCRR 212-1.7 (b): Compliance Demonstration
- 1-8 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
- 1-12 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



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.

New York State Department of Environmental Conservation

Permit ID: 5-4140-00189/00004

Facility DEC ID: 5414000189



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



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:

New York State Department of Environmental Conservation

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Facility DEC ID: 5414000189



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:

New York State Department of Environmental Conservation

Permit ID: 5-4140-00189/00004

Facility DEC ID: 5414000189



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



New York State Department of Environmental Conservation

Permit ID: 5-4140-00189/00004

Facility DEC ID: 5414000189

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



New York State Department of Environmental Conservation

Permit ID: 5-4140-00189/00004

Facility DEC ID: 5414000189

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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Facility DEC ID: 5414000189

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 1-7: Compliance Demonstration
Effective between the dates of 09/12/2016 and 03/15/2025

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

Item 1-7.1:

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: F-00004

Process: 407

Emission Source: AS492

Emission Unit: F-00004

Process: 407

Emission Source: AS493

Emission Unit: F-00004

Process: 407

Emission Source: AS494

Item 1-7.2:

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 in TDC Acid 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 350 gallons per minute (gpm) for these scrubbers.

Parameter Monitored: FLOW RATE

Lower Permit Limit: 350 gallons per minute

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 1-8: Compliance Demonstration



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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 1-9.2:

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 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 405 gallons per minute (gpm) for these scrubbers.

Parameter Monitored: FLOW RATE

Lower Permit Limit: 405 gallons per minute

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION

Averaging Method: 3-hour average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 1-10: Compliance Demonstration

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

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

Item 1-10.1:

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: F-00001

Process: F10

Emission Source: CS468



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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:

Emission Unit: F-00001
Process: F10

Emission Source: CS003

Emission Unit: F-00001
Process: F10

Emission Source: CS004

Emission Unit: F-00001

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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 1-12: Compliance Demonstration

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

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

Item 1-12.1:

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

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

Item 1-12.2:

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 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 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 1-13: 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

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

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

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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



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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 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.

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

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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:

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)

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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:

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 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 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

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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
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

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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:

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



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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.

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 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 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 41.2(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 41.3(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

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engines are certified Tier 2. These engines are used for emergency power and for demand response.

Building(s): ESB
ESB2

Item 41.4(From Mod 1):

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.

Building(s): FAB

Item 41.5(From Mod 1):

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): TDC

**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)

Item 43.1:

The Compliance Demonstration activity will be performed for the Facility.

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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:

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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

Applicable State Requirement:6 NYCRR 225-1.2

Item 48.1:

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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 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

Emission Point: 00070
Height (ft.): 58 Diameter (in.): 30



NYTMN (km.): 4758.365 NYTME (km.): 601.545 Building: CUB

Item 49.2(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

Emission Point: 00109



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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 49.3(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	
NYTMN (km.): 4758.523	NYTME (km.): 601.334	Building: ESB

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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

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

Item 49.4(From Mod 1):

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
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

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

Item 49.5(From Mod 1):

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



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

Emission Source/Control: OTH61 - Control
Control Type: WET SCRUBBER

Emission Source/Control: OTH69 - Control
Control Type: WET SCRUBBER

Emission Source/Control: OTH70 - Control
Control Type: WET SCRUBBER

Emission Source/Control: OTHAT - Process

Emission Source/Control: OTHCT - Process

Item 50.2(From Mod 1):

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

Emission Unit: B-00001
Process: B01 Source Classification Code: 1-02-005-02
Process Description: Boilers using #2 oil.

Emission Source/Control: B0001 - Combustion
Design Capacity: 57.9 million BTUs per hour

Emission Source/Control: B0002 - Combustion
Design Capacity: 57.9 million BTUs per hour

Emission Source/Control: B0005 - Combustion
Design Capacity: 57.9 million BTUs per hour

Item 50.3(From Mod 1):

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

Emission Unit: B-00001
Process: BO2 Source Classification Code: 1-02-006-02
Process Description: Boilers using natural gas.



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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 50.6(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.

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 50.7(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

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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 50.8(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

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Emission Source/Control: C2G09 - Combustion
Design Capacity: 2,280 kilowatts

Emission Source/Control: C2G10 - Combustion
Design Capacity: 2,280 kilowatts

Item 50.9(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 50.10(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 50.11(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 50.12(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 50.13(From Mod 1):

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



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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 50.14(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

Item 50.15(From Mod 1):

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

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

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

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: 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

Item 50.16(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

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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

Emission Source/Control: OX114 - Control
Control Type: THERMAL OXIDATION

Emission Source/Control: OX115 - Control
Control Type: THERMAL OXIDATION

Emission Source/Control: OX441 - Control
Control Type: THERMAL OXIDATION

Emission Source/Control: 00F11 - Process

Item 50.17(From Mod 1):

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.

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These include six acid scrubbers, three caustic scrubbers and three rotary concentrator thermal oxidizers.

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: AS492 - Control
Control Type: WET SCRUBBER

Emission Source/Control: AS493 - Control
Control Type: WET SCRUBBER

Emission Source/Control: AS494 - 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 50.18(From Mod 1):

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

Emission Unit: F-00004

Process: 408

Source Classification Code: 3-13-065-00

Process Description:

Fabrication processes consisting of etch operations.

Emission Source/Control: ET401 - Process

Item 50.19(From Mod 1):



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

Emission Unit: F-00004
Process: 409 Source Classification Code: 3-13-065-00
Process Description:
Fabrication processes consisting of diffusion operations.

Emission Source/Control: DF401 - Process

Item 50.20(From Mod 1):

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

Emission Unit: F-00004
Process: 410 Source Classification Code: 3-13-065-00
Process Description:
Fabrication processes consisting of thin film operations.

Emission Source/Control: TF401 - Process

Item 50.21(From Mod 1):

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

Emission Unit: F-00004
Process: 411 Source Classification Code: 3-13-065-00
Process Description:
Fabrication processes consisting of process lab operations.

Emission Source/Control: LP401 - Process

