



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

**IDENTIFICATION INFORMATION**

Permit Type: Air State Facility  
Permit ID: 9-1402-01108/00003  
Effective Date: 04/30/2015 Expiration Date: 04/29/2020

Permit Issued To: TESLA MOTORS  
1339 SOUTH PARK AVE  
BUFFALO, NY 14220

Contact: TERRY BEHRENS  
SILEVO INC  
45655 NORTHPORT LOOP EAST  
FREMONT, CA 94538  
(503) 476-7200

Facility: BUFFALO HIGH TECH MANUFACTURING HUB AT RIVER BEND  
1339 S PARK AVE  
BUFFALO, NY 14220

**Description:**

This is an Air State Facility permit which will authorize the construction and operation of a 1 GW photovoltaic module fabricating plant located in Buffalo, N.Y. and capable of producing 9500 completed modules per day. The manufacturing processes include wafer fabrication and assembly. Each module contains 72 individual wafers. Wafer fabrication steps include: etching, texturing, cleaning, plating, developing, chemical and vapor deposition, application of photoresist, and acid/solvent rinse steps. All processes are conducted in enclosed tools.

Acid gases from the tools will be treated by packed scrubbers utilizing caustic. Ammonia from ammonia hydroxide utilized in texturing and cleaning will be treated by two ammonia scrubbers utilizing sulfuric acid.

Toxic and flammable gases such as hydrogen, silane, diborane, phosphine are used in the chemical vapor deposition (CVD) tools. Point of use destruction systems will be in place to abate these gases along with nitrogen trifluoride from chamber cleaning. The effluent along with combustion gases will then be treated by the system gas scrubbers.

Since this fab plant remains in the design phase and there are uncertainties with scaling up to this size production capacity, emission rates can only be confirmed through source testing. The data from the source tests will then be used to perform revised dispersion modeling results of which will be compared to the individual Annual Guideline Concentrations (AGC) and Short-term Guideline Concentrations (SGC). If source testing results demonstrate ambient impacts in excess of any AGC or SGC, the control requirements will be re-evaluated and if, necessary, additional control required. It is expected that the control equipment will meet a minimum contaminant removal efficiency of 99%.

At this time, the hourly emission rate potentials (ERP) for all contaminants except ammonia are estimated to be less than 1 pound per hour. Actual ERP's will be established from source testing

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on the scrubbers which will occur at various production levels as the facility ramps up to full production.

Initial modeling indicates that ambient impacts for actual ammonia emissions at 3.56 pounds per hour will be below the odor threshold (5 ppm). However, if odors are detected from ammonia emissions, the permittee is required to submit an odor abatement protocol.

Chemicals stored on-site may be subject to the Accidental Release and Risk Management Plan of 112R and the Community Right to Know Requirements of Section 311 and 312.

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:           LISA M CZECHOWICZ  
  NYSDEC - REGION 9  
  270 MICHIGAN AVE  
  BUFFALO, NY 14203-2915

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



**Notification of Other State Permittee Obligations**

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

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

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

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

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

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

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

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



**LIST OF CONDITIONS**

**DEC GENERAL CONDITIONS**

**General Provisions**

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

**Facility Level**

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

**DEC SPECIAL CONDITIONS**

The permittee shall comply as required with with Sections 311 and  
312 of the Community Right to Know Act and Section 112R of the  
Clean Air Act.



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

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

**Item 3.1:**

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 4: Applications for permit renewals, modifications and transfers**

**Applicable State Requirement: 6 NYCRR 621.11**

**Item 4.1:**

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 4.2:**

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 4.3:**

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

**Item 5.1:**

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

**Item 6.1:**

Submission of applications for permit modification or renewal are to be submitted to:

NYSDEC Regional Permit Administrator  
Region 9 Headquarters  
Division of Environmental Permits  
270 Michigan Avenue  
Buffalo, NY 14203-2915

(716) 85



**DEC SPECIAL CONDITIONS**

1-7165

**Condition 7: The permittee shall comply as required with with Sections 311 and 312 of the Community Right to Know Act and Section 112R of the Clean Air Act.**  
**Applicable State Requirement: 6 NYCRR 617.1**

**Item 7.1:**

Within 30 days of completion of construction, the permittee will submit a list of all chemical and gaseous storage tanks and containers and their capacity to the Division of Air Region 9. For explosive and flammable gaseous materials including but not limited to silane, phosphine, and diborane, the permittee must comply as required with Sections 311 and 312 of the Community Right to Know Act. For those chemicals greater than threshold quantities, the permittee shall implement and submit an Accidental Release and Risk Management Plan as required by Section 112R of the Clean Air Act to the Environmental Protection Agency.

**New York State Department of Environmental Conservation**

Permit ID: 9-1402-01108/00003

Facility DEC ID: 9140201108



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

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

**IDENTIFICATION INFORMATION**

Permit Issued To: TESLA MOTORS  
1339 SOUTH PARK AVE  
BUFFALO, NY 14220

Facility: BUFFALO HIGH TECH MANUFACTURING HUB AT RIVER BEND  
1339 S PARK AVE  
BUFFALO, NY 14220

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

Permit Effective Date: 04/30/2015

Permit Expiration Date: 04/29/2020





**LIST OF CONDITIONS**

**FEDERALLY ENFORCEABLE CONDITIONS**

**Facility Level**

- 1 6 NYCRR 200.7: Maintenance of Equipment
- 2 6 NYCRR 200.7: Compliance Demonstration
- 3 6 NYCRR 202-1.1: Compliance Demonstration
- 4 6 NYCRR Part 211: Compliance Demonstration
- 5 6 NYCRR 211.1: Air pollution prohibited
- 6 6 NYCRR 212.4 (a): Compliance Demonstration
- 7 6 NYCRR 212.4 (b): Compliance Demonstration
- 8 6 NYCRR 212.6 (a): Compliance Demonstration
- 9 40CFR 63, Subpart ZZZZ: Compliance and Enforcement
- 10 40CFR 63.6640(f), Subpart ZZZZ: Compliance Demonstration

**Emission Unit Level**

**EU=0-0BLRS**

- 11 40CFR 60.48c(a), NSPS Subpart Dc: Compliance Demonstration

**EU=0-0CELL,Proc=DEP**

- 12 6 NYCRR 202-1.1: Compliance Demonstration
- 13 6 NYCRR 212.4 (b): Compliance Demonstration

**EU=0-EMGEN**

- 14 40CFR 60, NSPS Subpart IIII: Compliance Demonstration
- 15 40CFR 63.6590(c), Subpart ZZZZ: Stationary RICE subject to regulations under 40 CFR Part 60

**STATE ONLY ENFORCEABLE CONDITIONS**

**Facility Level**

- 16 ECL 19-0301: Contaminant List
- 17 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 18 6 NYCRR Subpart 201-5: Emission Unit Definition
- 19 6 NYCRR 201-5.2: Compliance Demonstration
- 20 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
- 21 6 NYCRR 201-5.3 (c): Compliance Demonstration
- 22 6 NYCRR 211.2: Visible Emissions Limited

**Emission Unit Level**

- 23 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
- 24 6 NYCRR Subpart 201-5: Process Definition By Emission Unit



**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**



**Activities - 6 NYCRR 201-3.3 (a)**

The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Part 201 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 I: Required Emission Tests - 6 NYCRR 202-1.1**

An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating permit. Notification and acceptable procedures are specified in 6 NYCRR Subpart 202-1.

**Item J: Open Fires Prohibitions - 6 NYCRR 215.2**

Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

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

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

**Item L: Federally Enforceable Requirements - 40 CFR 70.6 (b)**



All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

**FEDERAL APPLICABLE REQUIREMENTS**  
The following conditions are federally enforceable.

**Condition 1: Maintenance of Equipment**  
Effective between the dates of 04/30/2015 and 04/29/2020

**Applicable Federal Requirement:6 NYCRR 200.7**

**Item 1.1:**

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

**Condition 2: Compliance Demonstration**  
Effective between the dates of 04/30/2015 and 04/29/2020

**Applicable Federal Requirement:6 NYCRR 200.7**

**Item 2.1:**

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

Emission Unit: 0-0CELL

Emission Unit: 0-0MISC

**Item 2.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

A scrubber preventative maintenance program shall be developed and submitted within 90 days after start-up.

Scrubber performance parameters shall be monitored and recorded in accordance with the conditions contained in



this permit. Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) established in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date the corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time during which there was a deviation;
- e. the pressure drop, flow rate, and pH readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Deviations found during the inspections which are not within normal operating ranges specified by the manufacturer of the scrubber are to be noted and included in an annual report submitted to the Division of Air Resources, New York State Department of Environmental Conservation Region 9 office under a truthfulness and accuracy statement. If no deviations from normal operating parameter ranges are found, a report shall be submitted stating so.

1) All deviations (excursions) of emission limitations, operational restrictions and/or control device operating parameter limitations that have been detected by the monitoring, record keeping and/or testing requirements in this permit.



2) Each period of time (start and end time and date) when the pressure drop across the scrubber, the liquid flow rate, or the liquid pH was outside of the appropriate range or limit specified by the manufacturer and/or outside of the acceptable range for each parameter following any required performance test.

3) Any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;

- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion)

Records of the dates of deviations and corrective actions shall be retained in a bound log book for a period of not less than five years. These records shall be made available to Department representatives for review on request during normal business hours.

Should the Department determine that permittee's record keeping format is inadequate to demonstrate compliance with this condition, it shall provide written notice to the permittee stating the inadequacies, and permittee shall have 90 days to revise its prospective record keeping format in a manner acceptable to the Department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 3: Compliance Demonstration**  
**Effective between the dates of 04/30/2015 and 04/29/2020**

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

**Item 3.1:**

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

Emission Unit: 0-0CELL

Regulated Contaminant(s):

CAS No: 007647-01-0	HYDROGEN CHLORIDE
CAS No: 007664-39-3	HYDROGEN FLUORIDE
CAS No: 007664-93-9	SULFURIC ACID
CAS No: 007697-37-2	NITRIC ACID



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Permit ID: 9-1402-01108/00003

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CAS No: 0NY210-00-0      OXIDES OF NITROGEN  
CAS No: 007664-41-7      AMMONIA

## Item 3.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

This permit represents a construction and operation permit for the construction of a 1GW photovoltaic manufacturing facility. The maximum production level is expected to be 9500 completed modules per day. Source testing is required to establish the emission rate potential, control efficiency, and actual emissions of air contaminants. Scrubber and process operating parameters will be documented during the source test. If any process parameter is operated in a mode other than its normal mode of operation, or if any scrubber or production parameter is operated below the minimum or above the maximum required by the permit, the Department may require that the permit be modified to reflect the operating conditions during the test.

Unless granted prior approval from the Department, any pollution control equipment that is operating during the stack test should be operated in its normal mode of operation. Any parameters of operation (i.e. scrubber water flow rate; pH, temperatures, etc.) should not be changed for the test. Any part of the process that is normally operated in an automatic mode should remain in automatic for the test. Prior to testing all process and control equipment will be identified.

The permittee shall conduct performance tests on each scrubber in accordance with US EPA Reference Methods as described in 40 CFR, Part 60, Appendix A.

Testing shall be conducted on the scrubbers for including but not limited to: HCL, hydrogen fluoride, nitrogen oxides, nitric acid, sulfuric acid, and ammonia. A minimum control efficiency of 99% is required unless a case by case determination is otherwise made by the Department.

Not later than 180 days after start-up or 60 days after reaching maximum production, the permittee shall conduct a performance test on one acid scrubber at 42,000 cfm and one acid scrubber at 35,000 cfm and one ammonia scrubber.

The performance test shall be conducted at the maximum production rate the facility has reached at that





time.

Each subsequent year, a different acid scrubber shall be tested.

Once 75% of maximum production has been reached for this plant, a final test shall be conducted on an acid scrubber and the remaining ammonia scrubber.

A stack test proposal must be submitted not less than 30 days prior to testing.

The final report must include contain all the information necessary to support the final results of the test including sufficient description and data to explain any process problems, test equipment problems, and any aborted or partial runs that occurred during the testing. The final report shall be submitted within 60 days from the completion of the test.

- a. All test data, including all hand-written data sheets.
- b. All calibration data (pre-, post- and during the day of the test).
- c. Any process data that Department and the permittee agreed would be collected.
- d. All equations and calculations used in the test report, including any intermediate calculations, all constants, and assumed values.
- e. If the testing included any post-test sample analyses, then all the laboratory data sheets and any laboratory QA/QC information.
- f. All final results and the limits against which they are being compared for compliance.
- g. A description of any changes from the information described in the pre-test protocol, and any discrepancies or problems that occurred during the testing, or after the test, including sample analyses.
- h. An explanation of how discrepancies or problems were treated and the effect, if any, on the final results, especially if the source is requesting to discard any test run data or for Department to accept less than the full run time.
- k. If applicable, the results and associated run data and field data sheets for any failed stack tests or individual runs.

Parameter Monitored: AMMONIA

Lower Permit Limit: 99 percent degree of air cleaning or greater

Reference Test Method: EPA 40 CFR 60 Appendix A

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Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 4: Compliance Demonstration**  
**Effective between the dates of 04/30/2015 and 04/29/2020**

**Applicable Federal Requirement:6 NYCRR Part 211**

**Item 4.1:**

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

**Item 4.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The permittee shall employ reasonably available control measures to reduce fugitive dust emissions from all paved and upaved roadways and parking areas by sweeping, the application of water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure facility activities do not create fugitive dust emissions. The implementation of control measures shall be determined by weather conditions and the severity of dry and/or windy conditions.

Monitoring Frequency: DAILY

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 5: Air pollution prohibited**  
**Effective between the dates of 04/30/2015 and 04/29/2020**

**Applicable Federal Requirement:6 NYCRR 211.1**

**Item 5.1:**

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 6: Compliance Demonstration**



Effective between the dates of 04/30/2015 and 04/29/2020

Applicable Federal Requirement: 6 NYCRR 212.4 (a)

**Item 6.1:**

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

Emission Unit: 0-0CELL  
Process: CLN

Emission Unit: 0-0CELL  
Process: ECI

Emission Unit: 0-0MISC  
Process: EC2

Regulated Contaminant(s):  
CAS No: 007664-41-7 AMMONIA

**Item 6.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

The permittee will utilize three scrubbers to control ammonia emissions from the fabrication of wafers used in the production of photovoltaic modules. These scrubbers, are identified as two 35,000 cfm units exhausting processes to emission points 00007 & 00008 and a 2,000 cfm scrubber for miscellaneous waste storage and treatment and chemical storage areas and directed to emission point 00016.

The scrubbers receive the ammonia exhaust stream which is scrubbed by pulling through a packed bed while an aqueous acidic scrubbing solution runs cross-current to the air stream. Ammonia gasses present in the exhaust stream are absorbed in the pH controlled circulating solution then converted to soluble ammonium sulfate. Sulfuric acid is added to maintain pH within the specified range.

Scrubber Performance Parameters:

This permit represents a construction and operation permit. The emission rate potential (ERP) of ammonia shall be verified by source testing after the maximum production rate has been achieved. The scrubbers shall operate at the minimum control efficiency of 99% or as determined based on the ERP and Table 2 of 6NYCRR, Part 212.9. A higher control efficiency may be required based on test results



and dependent on the ERP, control efficiency, actual emissions and an air dispersion modeling analysis to demonstrate that the maximum off-site concentration of ammonia is less than the applicable annual guideline concentrations (AGC) and short-term guideline concentration (SGC). This Department may request a permit modification to reflect source test results, equipment changes, and any additional requirements necessitated by the source test results.

The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber the scrubber liquid flow rate, and the scrubber liquid pH during operation of this emissions unit, including periods of startup and shutdown.

The permittee shall record the pressure drop across the scrubber and the scrubber liquid's pH and flow rate on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee and approved by this Department.

If ammonia odors are detected off-site, the permittee will submit an odor mitigation plan at the request of this Department.

The following operating ranges are based on manufacturers' guarantee and may change depending on information obtained during anticipated performance tests.

pH: 3-5  
Max pressure drop across the bed: 1 in WC  
Max pressure drop across demister: 0.5 in WC  
Recirculation flow rate:  
35,000 cfm: 400 gpm  
2,000 cfm: 100 gpm  
Liquid conductivity: 60mSiemens/cm

These range(s) and/or limit(s) for the pressure drop, liquid flow rate, and pH are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the NYSDEC. Approved revisions to the range or limit based on a performance test will be determined to be consistent with the monitoring requirements of this permit and incorporated into future modifications and/or permit renewals.



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All records shall be kept on-site in a log book which is to be made available to Department representatives on request during normal business hours. These records are to be kept for a period of five years.

Parameter Monitored: ACIDITY/ALKALINITY  
Upper Permit Limit: 5 pH (STANDARD) units  
Monitoring Frequency: CONTINUOUS  
Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -  
SEE 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 7: Compliance Demonstration**  
**Effective between the dates of 04/30/2015 and 04/29/2020**

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

**Item 7.1:**

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

Emission Unit: 0-0CELL  
Process: CLN

Emission Unit: 0-0CELL  
Process: DEP

Emission Unit: 0-0CELL  
Process: ECI

Emission Unit: 0-0CELL  
Process: ETC

Emission Unit: 0-0CELL  
Process: PLT

Emission Unit: 0-0MISC  
Process: EC2

Regulated Contaminant(s):

CAS No: 000064-18-6	FORMIC ACID
CAS No: 000064-19-7	ACETIC ACID
CAS No: 007664-39-3	HYDROGEN FLUORIDE
CAS No: 007664-93-9	SULFURIC ACID
CAS No: 007647-01-0	HYDROGEN CHLORIDE

**Item 7.2:**



Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

The permittee will utilize 7 caustic scrubbers to control acid emissions from the fabrication of wafers used in the production of photovoltaic modules. The scrubbers receive acid gasses, mists and vapors in the exhaust stream which are then absorbed in a pH controlled caustic solution.

Acid Scrubber Performance Parameters:

Since this permit represents a pre-construction permit and potential emission rates have not been determined, the emission rate potential of acid gases shall be determined by source testing after the maximum production rate has been achieved. The scrubbers shall operate at the minimum control efficiency of 99% or as determined based on the emission rate potential (ERP) and Table 2 of 6NYCRR, Part 212.9. A higher control efficiency may be required dependent on the source test results and dependent on the ERP, control efficiency, and actual emissions. An air dispersion model will be required to demonstrate that the maximum off-site concentration is less than the applicable annual guideline concentrations (AGC) and short-term guideline concentrations (SGC). This Department may request a permit modification to reflect source test results, equipment changes, and any additional requirements necessitated by the source test results.

The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber the scrubber liquid flow rate, and the scrubber liquid pH during operation of this emissions unit, including periods of startup and shutdown.

The permittee shall record the pressure drop across the scrubber and the scrubber liquid's pH and flow rate on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee and approved by this Department.

The following operating ranges are based on manufacturers' guarantee and may change depending on information obtained during anticipated performance tests.

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pH: 8-10  
Max pressure drop across the bed: 1 in WC  
Max pressure drop across demister: 0.5 in WC  
Liquid conductivity 60mSiemens/cm  
Caustic recirculation rate:  
35,000 cfm-400 gpm  
42,000 cfm-450 gpm  
10,000 cfm-200 gpm

These range(s) and/or limit(s) for the pressure drop, liquid flow rate, and pH are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the NYSDEC. Revisions to the permitted range (s) or limit(s) for these parameters. Approved revisions to the range or limit based on a performance test will be determined to be consistent with the monitoring requirements of this permit and incorporated into future modifications and/or permit renewals.

All records shall be kept on-site in a log book which is to be made available to Department representatives on request during normal business hours. These records are to be kept for a period of five years.

Parameter Monitored: ACIDITY/ALKALINITY  
Lower Permit Limit: 8 pH (STANDARD) units  
Monitoring Frequency: CONTINUOUS  
Averaging Method: MINIMUM - NOT TO FALL BELOW STATED  
VALUE - SEE 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 8: Compliance Demonstration**  
**Effective between the dates of 04/30/2015 and 04/29/2020**



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

**Item 8.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 8.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Average opacity of visible emissions from emission points during any six consecutive minutes shall not be 20% or greater. The permittee shall conduct daily visible emissions observations for all emission points at the facility.

If visible emissions are observed, the permittee shall also note the following in a log:

- a. the location and color of the emissions;
  - b. whether the emissions occurred during normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident;
- and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit).

With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

All records shall be kept on-site in a log book which is to be made available to Department representatives on request during normal business hours. These records are to be kept on-site for a period of five years.





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Parameter Monitored: VISIBLE EMISSIONS

Upper Permit Limit: 20 percent

Reference Test Method: Method 9

Monitoring Frequency: DAILY

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 9: Compliance and Enforcement**  
**Effective between the dates of 04/30/2015 and 04/29/2020**

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

**Item 9.1:**

The Department has not accepted delegation of 40 CFR Part 63 Subpart ZZZZ. Any questions concerning compliance and/or enforcement of this regulation should be referred to USEPA Region 2, 290 Broadway, 21st Floor, New York, NY 10007-1866; (212) 637-4080. Should the Department decide to accept delegation of 40 CFR Part 63 Subpart ZZZZ during the term of this permit, enforcement of this regulation will revert to the Department as of the effective date of delegation.

**Condition 10: Compliance Demonstration**  
**Effective between the dates of 04/30/2015 and 04/29/2020**

**Applicable Federal Requirement:40CFR 63.6640(f), Subpart ZZZZ**

**Item 10.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 10.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of an emergency stationary RICE must operate the emergency stationary RICE according to the requirements in 40 CFR 63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (4), is prohibited. If the owner or operator does not operate the engine according to the requirements in 40 CFR 63.6640(f)(1) through (4), the engine will not be considered an emergency engine under subpart ZZZZ and must meet all requirements for non-emergency engines.

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Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

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

**Condition 11: Compliance Demonstration**  
**Effective between the dates of 04/30/2015 and 04/29/2020**

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

**Item 11.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0BLRS

**Item 11.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner and operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.7 of this part. This notification shall include:

- (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
- (2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under 40 CFR 60.42c., or 40 CFR 60.43c.
- (3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

Monitoring Frequency: SINGLE OCCURRENCE

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 12: Compliance Demonstration**  
**Effective between the dates of 04/30/2015 and 04/29/2020**

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



**Item 12.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0CELL

Process: DEP

Regulated Contaminant(s):

CAS No: 007783-54-2 NITROGEN FLUORIDE

CAS No: 007803-51-2 PHOSPHINE

CAS No: 019287-45-7 DIBORANE

CAS No: 007803-62-5 SILANE

**Item 12.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The permittee will operate fourteen Point of Use (POU) abatement systems for the chemical vapor deposition (CVD) chambers and CVD chamber cleaning. Each POU includes a thermal oxidizer from which exhaust gases are directed to the facility wet scrubber(s) and is integrated with the CVD system preventing operation of the CVD process without a functioning POU.

The permittee shall conduct performance tests on one POU system within 60 days after start-up in accordance with US EPA Protocol for measuring destruction removal efficiency(DRE) using FTIR/MS technology and best practice guidance issued by International SEMATECH Technology Transfer #0612485A-ENG (2006).

An additional performance test shall be conducted when the facility reaches 60% of the maximum production rate or 7125 completed modules per day.

Testing shall be conducted under steady state conditions for, including but not limited to; silane, diborane, phosphine and nitrogen trifluoride. A minimum destruction removal efficiency (DRE) of 99% for each air contaminant is required unless a case by case determination is otherwise made by the Department.

A stack test proposal must be submitted 30 days prior to testing and shall include the following:

- a) Description of the process tool and abatement system;
- b) Configuration of the process tool and abatement system;
- c) Presence of vacuum pump purges and additional purges;



- d) Process operating conditions;
- e) Actual process measurement conditions;
- f) Number of process chambers served by abatement system;
  
- g) Abatement system temperature;
- h) Process exhaust flows;
- i) dilution factor as defined as the ratio of the nominal abatement system exhaust flow to the nominal process exhaust flow

The final report must include all the information necessary to support the final results of the test including sufficient description and data to explain any process problems, test equipment problems, and any aborted or partial runs that occurred during the testing. The final report shall be submitted within 60 days from the completion of the test.

- a. All test data, including all hand-written data sheets.
- b. All calibration data (pre-, post- and during the day of the test).
- c. Any process data that Department and the permittee agreed would be collected.
- d. All equations and calculations used in the test report, including any intermediate calculations, all constants, and assumed values.
- e. If the testing included any post-test sample analyses, then all the laboratory data sheets and any laboratory QA/QC information.
- f. All final results and the limits against which they are being compared for compliance.
- g. A description of any changes from the information described in the pre-test protocol, and any discrepancies or problems that occurred during the testing, or after the test, including sample analyses.
- h. An explanation of how discrepancies or problems were treated and the effect, if any, on the final results, especially if the source is requesting to discard any test run data or for Department to accept less than the full run time.
- k. If applicable, the results and associated run data and field data sheets for any failed stack tests or individual runs.



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Parameter Monitored: DEGREE OF AIR CLEANING

Lower Permit Limit: 99 percent

Reference Test Method: EPA Methods 40 CFR 60 Appendix A

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST

METHOD INDICATED

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 13: Compliance Demonstration**  
**Effective between the dates of 04/30/2015 and 04/29/2020**

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

**Item 13.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0CELL

Process: DEP

Regulated Contaminant(s):

CAS No: 001333-74-0	HYDROGEN
CAS No: 007783-54-2	NITROGEN FLUORIDE
CAS No: 007803-51-2	PHOSPHINE
CAS No: 019287-45-7	DIBORANE
CAS No: 007803-62-5	SILANE

**Item 13.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

The chemical vapor deposition tools use various gases such as silane, diborane, and phosphine as a pre-cursors for silicon deposition.

The POU thermal abatement for the exhaust management of CVD process tools handles the deposition gases silane, phosphine, diborane, along with the hydrogen carrier gas, and nitrogen trifluoride utilized for chamber cleaning. There are proposed 14 thermal units, each capable of handling six tools. The CVD process is fully integrated with the POU system and cannot operate independently. The combustion by-products are further treated by the process scrubbers.

The minimum required destruction removal efficiency (DRE) required is 99%. The maximum inlet volumetric flow rate of the following gases for each destruction unit is as follows:



Hydrogen 100 standard liters per minute (slm)  
Silane 40 slm  
Nitrogen trifluoride 60 slm  
Diborane 5 slm  
Methane 40 slm  
Phosphine 5 slm

The permittee shall continuously monitor the inlet flows of gases and provide assurance that interlocks will not allow process tools to operate if the maximum concentrations are exceeded or the scrubber is off line.

The Permittee shall maintain a record of routine maintenance activities performed on the the thermal oxidizer. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed. The facility maintenance plan shall be kept on-site and made available for review.

The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the CVD/PVD tools and the thermal oxidizer. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.

Parameter Monitored: DEGREE OF AIR CLEANING

Upper Permit Limit: 99 percent

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE AT ANY TIME

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 14: Compliance Demonstration**  
**Effective between the dates of 04/30/2015 and 04/29/2020**

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

**Item 14.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-EMGEN

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN  
CAS No: 0NY075-00-0 PARTICULATES



**Item 14.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The permittee operates three diesel fuel emergency generators each having an engine displacement of 75L and > 3000 HP. As an area source of hazardous air pollutants complying with the requirements of this NSPS will meet the requirements of the NESHAP 40 CFR 63 Subpart ZZZZ.

60.4205(d)(1) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.

60.4205(d)(2) For engines installed on or after January 1, 2012, limit the emissions of NOX in the stationary CI internal combustion engine exhaust to the following:

- (i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii)  $44 \cdot n - 0.23$  g/KW-hr ( $33 \cdot n - 0.23$  g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and
- (iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

60.4205(d)(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

60.4206 Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§ 60.4204 and 60.4205 over the entire life of the engine.

60.4207(d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder are no longer subject to the requirements of paragraph (a) of this section, and must use fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

60.4209(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

60.4211(e) If you are an owner or operator of a modified



or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(e) or § 60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in § 60.4204(e) or § 60.4205(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in § 60.4212 or § 60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

60.4211(f) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

60.4214(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and



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non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

60.4218: Table 8 to this subpart shows which parts of the General Provisions in §§ 60.1 through 60.19 apply to you.

Upper Permit Limit: 0.40 grams per kilowatt hour

Reference Test Method: Method 5

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 15: Stationary RICE subject to regulations under 40 CFR Part 60 Effective between the dates of 04/30/2015 and 04/29/2020**

**Applicable Federal Requirement: 40CFR 63.6590(c), Subpart ZZZZ**

**Item 15.1:**

This Condition applies to Emission Unit: 0-EMGEN

**Item 15.2:**

An affected source that meets any of the criteria listed below must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

- new or reconstructed stationary RICE located at an area source,
- new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake horsepower located at a major source of HAP emissions,
- new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake horsepower located at a major source of HAP emissions,
- new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake horsepower located at a major source of HAP emissions,
- new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake horsepower located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis,
- new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake horsepower located at a major source of HAP emissions,

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- new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake horsepower located at a major source of HAP emissions.



**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 16: Contaminant List**  
**Effective between the dates of 04/30/2015 and 04/29/2020**

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

**Item 16.1:**

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

CAS No: 000064-18-6  
Name: FORMIC ACID

CAS No: 000064-19-7  
Name: ACETIC ACID

CAS No: 001333-74-0  
Name: HYDROGEN

CAS No: 007647-01-0



Name: HYDROGEN CHLORIDE

CAS No: 007664-39-3

Name: HYDROGEN FLUORIDE

CAS No: 007664-41-7

Name: AMMONIA

CAS No: 007664-93-9

Name: SULFURIC ACID

CAS No: 007697-37-2

Name: NITRIC ACID

CAS No: 007783-54-2

Name: NITROGEN FLUORIDE

CAS No: 007803-51-2

Name: PHOSPHINE

CAS No: 007803-62-5

Name: SILANE

CAS No: 019287-45-7

Name: DIBORANE

CAS No: 0NY075-00-0

Name: PARTICULATES

CAS No: 0NY210-00-0

Name: OXIDES OF NITROGEN

**Condition 17: Malfunctions and start-up/shutdown activities  
Effective between the dates of 04/30/2015 and 04/29/2020**

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

**Item 17.1:**

(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

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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 18: Emission Unit Definition**  
**Effective between the dates of 04/30/2015 and 04/29/2020**

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

**Item 18.1:**

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

Emission Unit: 0-0BLRS

Emission Unit Description:

Three new Cleaver Brooks CBEX Elite Boilers operating on natural gas will supply heating needs for the facility.

Two boilers are rated at 38.9 mmbtu/hr and one boiler is rated at 11.8 mmbtu/hr.

Building(s): 1

**Item 18.2:**

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

Emission Unit: 0-0CELL

Emission Unit Description:

Thin film photo voltaic cells are fabricated in enclosed tools with point of use (POU) thermal abatement and vented to facility scrubbers. Emissions are from processes associated with texturing, coating, cleaning, deposition, plating, and etching processes.

Building(s): 1

**Item 18.3:**



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

Emission Unit: 0-0MISC

Emission Unit Description:

This emissions unit consists of one 2,000 cfm ammonia scrubber and one 10,000 cfm acid scrubber to control emissions from miscellaneous waste storage and treatment tanks installed in the CUB building and chemical storage tanks in the fabrication area.

Building(s): 1

**Item 18.4:**

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

Emission Unit: 0-EMGEN

Emission Unit Description:

Three stand-by emergency generators. Each generator is rated at 2500 kw and will operate less than 500 hours per year.

Building(s): OUTSIDE

**Condition 19: Compliance Demonstration**

**Effective between the dates of 04/30/2015 and 04/29/2020**

**Applicable State Requirement:6 NYCRR 201-5.2**

**Item 19.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 19.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

This permit represents a pre-construction permit for a 1 GW photovoltaic module fabricating facility. The information contained within this permit application must be verified after construction is completed. Therefore, no later than 45 days after construction is completed and operation commenced, the permittee shall, consistent with 6NYCRR, Part 201-5.2, submit to the Department the following information based on current operating conditions:

1. A list and description of all emission sources at the facility except for those that are listed as exempt or trivial;
2. A description and configuration of the process tool(s) and abatement system(s);
3. A list of all emission points including the following parameters: stack height (ft), stack height above building (ft), internal stack diameter (in), exit temperature



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- (degrees F), exit velocity (ft/sec), exit flow (acfm), distance from emission the emission point to the property line (ft) and NYTM coordinates;
- 4. A process flow diagram detailing which process emissions and emission sources exhaust from which emission point;
- 5. A list including the type, rate and quantity of all regulated air pollutant emissions and persistent, bioaccumulative and toxic compound emissions, as listed in Subpart 201-9 of this Part, in sufficient detail for the Department to determine if additional State and Federal requirements may apply;
- 6. Air Guide-1 analyses based on recent stack test data and maximum expected production rates.
- 7. A list of all chemical, waste, and gaseous storage tanks and containers and their capacity.

The Department can request that a permit modification be submitted to reflect changes in operation, equipment, and if necessary, changes to monitoring conditions.

Monitoring Frequency: SINGLE OCCURRENCE

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 20: Renewal deadlines for state facility permits  
Effective between the dates of 04/30/2015 and 04/29/2020**

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

**Item 20.1:**

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 21: Compliance Demonstration  
Effective between the dates of 04/30/2015 and 04/29/2020**

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

**Item 21.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 21.2:**

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:



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Division of Air Resources  
NYS Dept. of Environmental Conservation  
Region 9  
270 Michigan Ave.  
Buffalo, NY 14203

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 22: Visible Emissions Limited**  
**Effective between the dates of 04/30/2015 and 04/29/2020**

**Applicable State Requirement:6 NYCRR 211.2**

**Item 22.1:**

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

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

**Condition 23: Emission Point Definition By Emission Unit**  
**Effective between the dates of 04/30/2015 and 04/29/2020**

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

**Item 23.1:**

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

Emission Unit: 0-0BLRS

Emission Point: 00001

Height (ft.): 52

Diameter (in.): 20

NYTMN (km.): 4752.34

NYTME (km.): 186.095

Building: 1

Emission Point: 00002

Height (ft.): 52

Diameter (in.): 20

NYTMN (km.): 4752.34

NYTME (km.): 186.095

Building: 1

Emission Point: 00003

Height (ft.): 52

Diameter (in.): 12

NYTMN (km.): 4752.34

NYTME (km.): 186.095

Building: 1

**Item 23.2:**

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



Emission Unit: 0-0CELL

Emission Point: 00007  
Height (ft.): 66 Diameter (in.): 54  
NYTMN (km.): 4752.34 NYTME (km.): 186.095 Building: 1

Emission Point: 00008  
Height (ft.): 66 Diameter (in.): 54  
NYTMN (km.): 4752.34 NYTME (km.): 186.095 Building: 1

Emission Point: 00009  
Height (ft.): 66 Diameter (in.): 54  
NYTMN (km.): 4752.34 NYTME (km.): 186.095 Building: 1

Emission Point: 00010  
Height (ft.): 66 Diameter (in.): 54  
NYTMN (km.): 4752.34 NYTME (km.): 186.095 Building: 1

Emission Point: 00011  
Height (ft.): 66 Diameter (in.): 54  
NYTMN (km.): 4752.34 NYTME (km.): 186.095 Building: 1

Emission Point: 00012  
Height (ft.): 66 Diameter (in.): 54  
NYTMN (km.): 4752.34 NYTME (km.): 186.095 Building: 1

Emission Point: 00013  
Height (ft.): 66 Diameter (in.): 54  
NYTMN (km.): 4752.34 NYTME (km.): 186.095 Building: 1

Emission Point: 00014  
Height (ft.): 66 Diameter (in.): 54  
NYTMN (km.): 4752.34 NYTME (km.): 186.095 Building: 1

Emission Point: 00015  
Height (ft.): 66 Diameter (in.): 54  
NYTMN (km.): 4752.34 NYTME (km.): 186.095 Building: 1

**Item 23.3:**

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

Emission Unit: 0-0MISC

Emission Point: 00016  
Height (ft.): 66 Diameter (in.): 18  
NYTMN (km.): 4752.34 NYTME (km.): 186.095 Building: 1

Emission Point: 00017  
Height (ft.): 66 Diameter (in.): 30  
NYTMN (km.): 4752.34 NYTME (km.): 186.095 Building: 1

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**Item 23.4:**

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

Emission Unit: 0-EMGEN

Emission Point: 00004

Height (ft.): 16

Diameter (in.): 20

NYTMN (km.): 4752.34

NYTME (km.): 186.095

Building: OUTSIDE

Emission Point: 00005

Height (ft.): 16

Diameter (in.): 20

NYTMN (km.): 4752.34

NYTME (km.): 186.095

Building: OUTSIDE

Emission Point: 00006

Height (ft.): 16

Diameter (in.): 20

NYTMN (km.): 4752.34

NYTME (km.): 186.095

Building: OUTSIDE

**Condition 24: Process Definition By Emission Unit**

**Effective between the dates of 04/30/2015 and 04/29/2020**

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

**Item 24.1:**

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

Emission Unit: 0-0BLRS

Process: NGC

Source Classification Code: 1-02-006-02

Process Description:

Three natural gas fired boilers: two rated at 38.9 mmbtu/hr and one at 11.8 mmbtu/hr.

Emission Source/Control: S00B1 - Combustion

Design Capacity: 11.8 million Btu per hour

Emission Source/Control: S00B2 - Combustion

Design Capacity: 38.9 million Btu per hour

Emission Source/Control: S00B3 - Combustion

Design Capacity: 38.9 million Btu per hour

**Item 24.2:**

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

Emission Unit: 0-0CELL

Process: CLN

Source Classification Code: 3-13-065-01

Process Description:

Wafer aqueous cleaning operations including the use of acetic acid (VOC), hydrogen fluoride (HF), hydrochloric acid (HCL) and ammonium hydroxide. Ammonium hydroxide is converted and released as ammonia from the process tool's point of use (POU) thermal destruction system.

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Emission Source/Control: S00AM - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P1 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P2 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P3 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P4 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P5 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P6 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P7 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P8 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: 00CLN - Process

**Item 24.3:**

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

Emission Unit: 0-0CELL

Process: DEP

Source Classification Code: 3-13-065-10

Process Description:

Chemical vapor deposition processes use phosphine, diborane, and silane to deposit film on the wafers. The tools are inherently equipped with point of use thermal (POU) abatement/wet scrubber controls to destroy the hazardous gases. There will be 14 total abatement units.

Emission Source/Control: S00P1 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P3 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P4 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P5 - Control  
Control Type: SCRUBBER - PACKED BED

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Emission Source/Control: S00P6 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P7 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P8 - Control  
Control Type: SCRUBBER - PACKED BED

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

Emission Source/Control: 00CVD - Process

**Item 24.4:**

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

Emission Unit: 0-0CELL

Process: ECI

Source Classification Code: 3-13-065-99

Process Description:

Emission control of acid, caustic (ammonia) and VOC from fabrication process. Includes 5 wet scrubbers rated at 42,000 cfm and 2 rated at 35,000 cfm and point of use thermal abatement.

Emission Source/Control: S00AM - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P1 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P3 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P4 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P5 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P6 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P7 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P8 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: 00FAB - Process

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**Item 24.5:**

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

Emission Unit: 0-0CELL

Process: ETC

Source Classification Code: 3-13-065-30

Process Description:

Etching/coating operations to prepare the wafer for deposition involves the use of sulfuric acid and formic acid (VOC). Acid gases are directed to a caustic scrubber.

Emission Source/Control: S00P1 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P3 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P4 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P5 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P6 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P7 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P8 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: 0ETCH - Process

**Item 24.6:**

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

Emission Unit: 0-0CELL

Process: PLT

Source Classification Code: 3-13-065-01

Process Description:

Copper plating processes include the use of hydrochloric acid to treat the wafer before plating. Acid gases are directed to a caustic scrubber.

Emission Source/Control: S00P1 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P3 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P4 - Control  
Control Type: SCRUBBER - PACKED BED

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Emission Source/Control: S00P5 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P6 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P7 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00P8 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: 0PLAT - Process

**Item 24.7:**

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

Emission Unit: 0-0MISC  
Process: EC2 Source Classification Code: 3-13-065-99  
Process Description:  
Emissions from the chemical storage and wastewater treatment tanks includes one acid scrubber rated at 10,000 cfm and one ammonia scrubber rated at 2000 cfm.

Emission Source/Control: S00M1 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: S00M2 - Control  
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: 0CHEM - Process

Emission Source/Control: 0WWTT - Process

**Item 24.8:**

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

Emission Unit: 0-EMGEN  
Process: DFC Source Classification Code: 2-02-001-02  
Process Description:  
Three emergency generators combust diesel fuel each rated at 2500kW.

Emission Source/Control: S00G1 - Combustion  
Design Capacity: 2,500 kilowatts

Emission Source/Control: S00G2 - Combustion  
Design Capacity: 2,500 kilowatts

Emission Source/Control: S00G3 - Combustion  
Design Capacity: 2,500 kilowatts





