PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 5-4140-00235/00002
Effective Date: 10/08/2015 Expiration Date: 10/07/2025

Permit Issued To:GENERAL ELECTRIC COMPANY
3135 EASTON TPKE
FAIRFIELD, CT 06828

GE Fuel Cells LLC
107 Hermes Rd
Ballston Spa, NY 12020

Contact: William O'Rourke
107 Hermes Rd
Ballston Spa, NY 12020
(518) 387-7401

Facility: GE FUEL CELLS LLC
107 HERMES RD
BALLSTON SPA, NY 12020

Description:
GE Fuel Cells LLC (GEFC) is engaged in research & development of solid oxide fuel cells with intention of entering into commercial production. Processes include abrasive cleaning of stainless steel plates, application of proprietary coatings, anode coating in any of four thermal spray cells, curing, and testing. Testing involves the consumption of hydrogen and natural gas. The facility also includes several small (< 10 mmBTU/hr) natural gas-fired stationary combustion installations. All sources and processes are located at the 107 Hermes Road location, with the exception of one 50-KW test stand that is located at the adjoining Hudson Valley Community College campus. GEFC will continue to own and operate this test stand. The fuel cells will be exhausted through a common exhaust stack, with the exception of the 50-KW at the HVCC campus.

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

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

Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY PERMIT

IDENTIFICATION INFORMATION

Permit Issued To:GENERAL ELECTRIC COMPANY
3135 EASTON TPKE
FAIRFIELD, CT 06828

GE Fuel Cells LLC
107 Hermes Rd
Ballston Spa, NY 12020

Facility: GE FUEL CELLS LLC
107 HERMES RD
BALLSTON SPA, NY 12020

Authorized Activity By Standard Industrial Classification Code:
8731 - COMMERCIAL PHYSICAL RESEARCH

Permit Effective Date: 10/08/2015 Permit Expiration Date: 10/07/2025

LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS

Facility Level

1 6 NYCRR Subpart 201-7: Facility Permissible Emissions
*2 6 NYCRR Subpart 201-7: Capping Monitoring Condition
*3 6 NYCRR Subpart 201-7: Capping Monitoring Condition
4 6 NYCRR 211.1: Air pollution prohibited
5 6 NYCRR 212-2.4 (b): Compliance Demonstration

Emission Unit Level

6 6 NYCRR 212-1.6 (a): Compliance Demonstration

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

7 ECL 19-0301: Contaminant List
8 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
9 6 NYCRR Subpart 201-5: Emission Unit Definition
10 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
11 6 NYCRR 201-5.3 (c): Compliance Demonstration
12 6 NYCRR 211.2: Visible Emissions Limited

Emission Unit Level

13 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
14 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: **Emergency Defense - 6 NYCRR 201-1.5**

An emergency constitutes an affirmative defense to an action brought 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 and/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;

(3) During the period of the emergency the facility owner and/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 and/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 and/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 F: **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 G: **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 H: **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 I: **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 J: **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 K: **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 L: **Permit Exclusion - ECL 19-0305**
The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

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

FEDERAL APPLICABLE REQUIREMENTS
The following conditions are federally enforceable.

Condition 1: **Facility Permissible Emissions**

Effective between the dates of 10/08/2015 and 10/07/2025

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 1.1:
The sum of emissions from the emission units specified in this permit shall not equal or exceed the following
Potential To Emit (PTE) rate for each regulated contaminant:

CAS No: 000630-08-0 PTE: 190,000 pounds per year
Name: CARBON MONOXIDE

Condition 2: Capping Monitoring Condition
Effective between the dates of 10/08/2015 and 10/07/2025

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 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 212-2.1 (a)

Item 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 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 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 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 2.6:
The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 007440-02-0 NICKEL METAL AND INSOLUBLE COMPOUNDS

Item 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 will maintain emissions of nickel compounds from the thermal spray cells to < or = 9.9 lb/yr. the facility will document the amount of nickel processed in the spray cells, and the emission rate on a rolling 12-month basis.

Process Material: COATING
Parameter Monitored: NICKEL METAL AND INSOLUBLE COMPOUNDS
Upper Permit Limit: 9.9 pounds per year
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: 12 MONTH AVERAGE - 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 3: Capping Monitoring Condition
Effective between the dates of 10/08/2015 and 10/07/2025

Applicable Federal Requirement:6 NYCRR Subpart 201-7

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 Subpart 201-6

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:
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: 000630-08-0 CARBON MONOXIDE

Item 3.7:
Compliance Demonstration shall include the following monitoring:

Capping: Yes
Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
The facility will maintain carbon monoxide (CO) emissions to < or = 95 - tons per year by utilizing the Jenbacher genset, or in cases where the Jenbacher is offline, by flaring the tail gas from the fuel cell. The facility will monitor the volume of gas introduced to the fuel cell, operation of the genset, and the performance criteria for the flare. The facility will document the hours of operation of these sources and maintain calculations of carbon monoxide emissions, based on emission factors acceptable to the Department, on a rolling 12-month basis.

Monitoring Frequency: 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 4: Air pollution prohibited
Effective between the dates of 10/08/2015 and 10/07/2025

Applicable Federal Requirement:6 NYCRR 211.1

Item 4.1:
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 5: Compliance Demonstration
Effective between the dates of 10/08/2015 and 10/07/2025

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

Item 5.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00001 Emission Point: PR001

Emission Unit: U-00002 Emission Point: SC001

Emission Unit: U-00002 Emission Point: SC002

Emission Unit: U-00002 Emission Point: SC003

Emission Unit: U-00002 Emission Point: SC004

Emission Unit: U-00003 Emission Point: 3000B

Regulated Contaminant(s):
CAS No: 0NY075-00-5 PM-10

Item 5.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:
The control of particulate emissions released from new and modified process emission sources.
Emissions from any process emission source for which an application was received by the department after July 1, 1973 are restricted as follows:

No facility owner or operator shall cause or allow emissions of particulate that exceed 0.050 grains per cubic foot of exhaust gas, expressed at standard conditions on a dry gas basis, except in instances where determination of permissible emission rate using process weight for a specific source category emitting solid particulate is based upon Table 5 and Table 6 of Subdivisions 212-2.5(a) and (b) of this Part.

Monitoring frequency shall be upon request by the Department.

Upper Permit Limit: 0.05 grains per dry standard cubic foot (corrected to 7% O2)
Reference Test Method: M-5
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

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

Condition 6: Compliance Demonstration
Effective between the dates of 10/08/2015 and 10/07/2025

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

Item 6.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: U-00002	Emission Point: SC001
Emission Unit: U-00002	Emission Point: SC002
Emission Unit: U-00002	Emission Point: SC003
Emission Unit: U-00002	Emission Point: SC004
Emission Unit: U-00003	Emission Point: 3000B

Item 6.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE
Monitoring Description:
No facility owner or operator shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source or emission point, except for the emission of uncombined water.

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 (METHOD 9)

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: **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 B: **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 7: **Contaminant List**
Effective between the dates of 10/08/2015 and 10/07/2025

Applicable State Requirement:ECL 19-0301

Item 7.1:
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: 007440-02-0
Name: NICKEL METAL AND INSOLUBLE COMPOUNDS

CAS No: 0NY075-00-5
Name: PM-10

Condition 8: Malfunctions and start-up/shutdown activities
Effective between the dates of 10/08/2015 and 10/07/2025

Applicable State Requirement:6 NYCRR 201-1.4

Item 8.1:
(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 9: Emission Unit Definition
Effective between the dates of 10/08/2015 and 10/07/2025

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 9.1:
The facility is authorized to perform regulated processes under this permit for:
Emission Unit: U-00001
Emission Unit Description:
This emission unit includes the cathode and other metal substrate surface coating process, HCl etch bath, and the 15 & 50-kW fuel cell test stands. Proprietary coatings are applied to stainless steel plates, and cured in electric ovens. The HCl etch bath is used for cleaning metal plates. The 15 & 50-kW fuel cells process natural gas to produce electricity. At this time, the cells are under development, but commercial production is ultimately anticipated.
This emission unit also includes the robotic topcoat spray coating process, which includes the application of aqueous solutions to metal substrates. The coatings are cured in any of several electric curing ovens.

Building(s): HR

Item 9.2:
The facility is authorized to perform regulated processes under this permit for:
Emission Unit: U-00002
Emission Unit Description:
This emission unit consists of the four thermal spray cells used to apply the anode and electrolyte coatings to stainless steel or other metal plates. Each spray cell is equipped with a baghouse and ULPA (Ultra Low Penetrating Air) filter. This system provides up to 99.999% removal efficiency for particulate matter as small as PM-10.

Building(s): HR

Item 9.3:
The facility is authorized to perform regulated processes under this permit for:
Emission Unit: U-00003
Emission Unit Description:
This emission unit includes the 1 mW test stand that runs in combined cycle or solid oxide mode, with the tail gas directed to the Jenbacher genset engine.

Building(s): HR

Condition 10: Renewal deadlines for state facility permits
Effective between the dates of 10/08/2015 and 10/07/2025

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

Item 10.1:
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 11: Compliance Demonstration
Effective between the dates of 10/08/2015 and 10/07/2025

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

Item 11.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 11.2:
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

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 12: Visible Emissions Limited
Effective between the dates of 10/08/2015 and 10/07/2025

Applicable State Requirement:6 NYCRR 211.2

Item 12.1:
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 13: Emission Point Definition By Emission Unit
Effective between the dates of 10/08/2015 and 10/07/2025

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 13.1:
The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-00001

Emission Point: PR001
Height (ft.): 44 Diameter (in.): 20
NYTMN (km.): 4658.22 NYTME (km.): 600.5 Building: HR

Item 13.2:
The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-00002

Emission Point: SC001
Height (ft.): 13 Diameter (in.): 24
NYTMN (km.): 4758.2 NYTME (km.): 600.6 Building: HR

Emission Point: SC002
Height (ft.): 13 Diameter (in.): 24
NYTMN (km.): 4758.2 NYTME (km.): 600.6 Building: HR

Emission Point: SC003
Height (ft.): 13 Diameter (in.): 24
NYTMN (km.): 4758.2 NYTME (km.): 600.6 Building: HR

Emission Point: SC004
Height (ft.): 13 Diameter (in.): 24
NYTMN (km.): 4758.2 NYTME (km.): 600.6 Building: HR

Item 13.3:
The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-00003

Emission Point: 3000B
Height (ft.): 27 Diameter (in.): 42
NYTMN (km.): 4758.286 NYTME (km.): 600.437 Building: HR

Condition 14: Process Definition By Emission Unit
Effective between the dates of 10/08/2015 and 10/07/2025

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 14.1:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: 101 Source Classification Code: 3-09-040-10
Process Description: This process is cathode surface coating.

Emission Source/Control: 101-1 - Process

Item 14.2:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: 102 Source Classification Code: 4-02-015-01
Process Description:
This process is cathode drying in electric drying ovens.

Emission Source/Control: 102-1 - Combustion

Item 14.3:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: 103 Source Classification Code: 3-05-014-15
Process Description:
This process is acid etching of stainless steel plates using hydrochloric acid.

Emission Source/Control: 103-1 - Process

Item 14.4:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: 104 Source Classification Code: 3-09-040-10
Process Description:
This process is the automated spray application of aqueous nitrate solutions to metal substrate using the topcoat spray robots.

Emission Source/Control: 104-2 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 104-1 - Process

Item 14.5:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: 105 Source Classification Code: 4-02-008-30

Process Description:
This process is curing of the aqueous coatings in electric curing ovens.

Emission Source/Control: 105-1 - Process

Item 14.6:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001
Process: 106 Source Classification Code: 3-12-999-99
Process Description:
15 kW Test Stand #3 & 50 kW Test Stand #4 - uses natural gas/hydrogen.

Emission Source/Control: 106-1 - Process

Emission Source/Control: 106-2 - Process

Item 14.7:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00002
Process: 201 Source Classification Code: 3-09-040-10
Process Description:
This process is the application of anode, electrolye, and GDC coatings in any of the four thermal spray cells.

Emission Source/Control: 201-2 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 201-3 - Control
Control Type: HIGH EFFICIENCY PARTICULATE AIR FILTER

Emission Source/Control: 202-2 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 202-3 - Control
Control Type: HIGH EFFICIENCY PARTICULATE AIR FILTER

Emission Source/Control: 203-2 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 203-3 - Control
Control Type: HIGH EFFICIENCY PARTICULATE AIR FILTER

Emission Source/Control: 204-2 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 204-3 - Control
Control Type: HIGH EFFICIENCY PARTICULATE AIR FILTER

Emission Source/Control: 201-1 - Process

Emission Source/Control: 202-1 - Process

Emission Source/Control: 203-1 - Process

Emission Source/Control: 204-1 - Process

Item 14.8:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00003
Process: 301 Source Classification Code: 3-12-999-99
Process Description:
This process is operation of the 1-megawatt test stand in combined cycle mode, with the tail gas directed to the Jenbacher genset.

Emission Source/Control: 300-1 - Process

Emission Source/Control: 300-2 - Process

Item 14.9:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00003
Process: 302 Source Classification Code: 3-12-999-99
Process Description:
This process is operation of the 1-megawatt test stand in solid oxy-fuel cell mode, with the tail gas directed to the flare.

Emission Source/Control: 300-3 - Control
Control Type: FLARING

Emission Source/Control: 300-1 - Process