

Facility DEC ID: 5414000235

PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 5-4140-00235/00002
Effective Date:

Expiration Date:

Permit Issued To: GE VERNOVA OPERATIONS LLC
ONE RESEARCH CIRCLE
NISKAYUNA, NY 12309

Contact: Kevin Tucker
1 RESEARCH CIRCLE
K1-3A54A
NISKAYUNA, NY 12309
(443) 994-0279

Facility: GE VERNOVA ADVANCED RESEARCH
107 HERMES RD|SUITE 140
MALTA, NY 12020

Description:

GE Vernova Advanced Research is engaged in the research and development (R&D) of solid oxide fuel cells with intention of entering into commercial production. Processes include application of proprietary coatings, anode coating in any of four thermal spray cells, curing, electroplating, and testing. Testing involves the consumption of gases such as hydrogen, nitrogen, argon, carbon dioxide, and natural gas. The facility also includes several small (<10 mmBTU/hr) natural gas-fired stationary combustion installations.

When the facility is operating in R&D mode, the facility is exempt from the requirements of 40 CFR 63, Subpart WWWW. When the facility is operating in manufacturing mode, the thermal spray cells and nickel electroplating processes are subject to the requirements of 40 CFR 63, Subpart WWWW.

Pursuant to the requirements of Section 7(2) of the CLCPA, the Department has requested and received information regarding the project's consistency with the CLCPA.

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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: BETH A MAGEE
NYSDEC - WARRENSBURG SUBOFFICE
232 GOLF COURSE RD
WARRENSBURG, NY 12885-1172

Authorized Signature: _____ Date: ____ / ____ / ____

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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.

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Facility Level

- 6 5 Submission of application for permit modification or renewal-REGION 5 SUBOFFICE - WARRENSBURG

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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 the expiration of permits for Title V and 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.

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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

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Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY PERMIT

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Permit Issued To: GE VERNOVA OPERATIONS LLC
ONE RESEARCH CIRCLE
NISKAYUNA, NY 12309

Facility: GE VERNOVA ADVANCED RESEARCH
107 HERMES RD|SUITE 140
MALTA, NY 12020

Authorized Activity By Standard Industrial Classification Code:
8731 - COMMERCIAL PHYSICAL RESEARCH
3674 - SEMICONDUCTORS & RELATED DEVICES

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 10 5 40CFR 63.11509(e), Subpart WWWW: Compliance Demonstration

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- 11 6 6 NYCRR 212-2.4 (b): Compliance Demonstration

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NOTE: * preceding the condition number indicates capping.

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FEDERALLY ENFORCEABLE CONDITIONS

Renewal 1/DRAFT

**** 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,

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required to operate such device effectively.

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

(a) Except as otherwise provided by this Part, construction or operation of a new, modified or existing air contamination source without a registration or permit issued pursuant to this Part is prohibited.

(b) If an existing facility or emission source was subject to the permitting requirements of this Part at the time of construction or modification, and the owner or operator failed to apply for a permit or registration as described in this Part, the owner or operator must apply for a permit or registration in accordance with the provisions of this Part. The facility or emission source is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing emission sources.

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

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

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

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

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

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request.

Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item H: Proof of Eligibility for Sources Defined as Trivial

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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)

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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 for entire length of Permit

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 for entire length of Permit

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 Subpart 201-6

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

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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: 000630-08-0 CARBON MONOXIDE

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:

Facility-wide emissions of carbon monoxide (CO) shall not exceed 95 tons per year (190,000 lbs / year) as determined by summing monthly CO emissions during any consecutive 12-month period. Actual CO emissions from all sources, including exempt and trivial sources, shall be included in these emissions.

Emissions of CO from sources at this facility will be based on emission factors and production factors that will be applied, as appropriate, to material usage records, operating records, production records, and/or fuel usage records. The source owner or operator shall use the most accurate emission factors available (i.e., latest published AP-42 factor, manufacturers guarantee, stack test data, etc.) for each emission source, to determine compliance with the emission cap.

Should the Department determine that the permittee's emission factor(s) is inadequate to demonstrate compliance with this condition, it shall provide written notice to the permittee stating the inadequacies, and permittee shall have 30 days to revise its respective records and emission factor(s) in a manner acceptable to the Department.

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On an annual basis, the responsible official shall provide the Department with a summary report outlining the 12-month rolling total facility-wide CO emissions to demonstrate compliance with the emission cap and certify that their CO emissions do not exceed the specified amount.

All of the records required to document compliance with the facility-wide emission cap above shall be maintained onsite for a period of at least five (5) years and shall be made available to the Department upon request.

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 95 tons per year

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 12-MONTH TOTAL, ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

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

Condition 3: Visible Emissions Limited
Effective for entire length of Permit

Applicable Federal Requirement: 6 NYCRR 211.2

Item 3.1:

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

Condition 4: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement: 6 NYCRR 228-1.1 (b) (9)

Item 4.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

Item 4.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

A facility performing surface coating operations may have

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up to 400 lbs of VOC emissions on a 12-month rolling total that is not subject to the requirements of Subpart 228-1.

This exemption is contingent on the owner or operator of the facility maintaining records of such surface coatings, and maintaining compliance with all requirements of section 228-1.3

Parameter Monitored: MASS FLOW RATE

Upper Permit Limit: 400 pounds

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 12-MONTH TOTAL, ROLLED MONTHLY

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 5: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement: 40CFR 63.11509(e), Subpart WWWW

Item 5.1:

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: U-00001

Process: M15

Emission Unit: U-00002

Process: M21

Item 5.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator must keep the records specified in paragraphs (1) through (3).

(1) A copy of any Initial Notification and Notification of Compliance Status that was submitted and all documentation supporting those notifications.

(2) The records specified in 40CFR 63.10(b)(2)(i) through (iii) and (xiv) of the General Provisions.

(3) The records required to show continuous compliance with each management practice and equipment standard that applies to the owner or operator, as specified in 40CFR 63.11508(d).

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

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Reports due 30 days after the reporting period.
Subsequent reports are due every 12 calendar month(s).

****** Emission Unit Level ********Condition 6: Compliance Demonstration
Effective for entire length of Permit****Applicable Federal Requirement: 6 NYCRR 212-2.4 (b)****Item 6.1:**

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

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

Item 6.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

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 6 NYCRR 212-2.5 (a) and (b).

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.050 grains per dscf

Reference Test Method: EPA Method 5

Monitoring Frequency: UPON REQUEST OF REGULATORY AGENCY

Averaging Method: Arithmetic average of stack test runs

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Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 7: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement: 40CFR 63.11507(a)(3), Subpart WWWWWW

Item 7.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Process: M15

Item 7.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

For an affected new or existing non-cyanide electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and operates at a pH of less than 12, the tank surface must be covered according to paragraph (i) or (ii).

(i) For batch electrolytic process tanks, as defined in 40CFR 63.11511, a tank cover, as defined in 40CFR 63.11511, must be used over all of the effective surface area of the tank for at least 95 percent of the electrolytic process operating time.

(ii) For continuous electrolytic process tanks, as defined in §63.11511, at least 75 percent of the surface of the tank, as defined in 40CFR 63.11511, must be covered whenever the electrolytic process tank is in operation.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

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

Condition 8: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement: 40CFR 63.11507(g), Subpart WWWWWW

Item 8.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Process: M15

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Item 8.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of an affected new or existing plating and polishing process unit that contains, applies, or emits one or more of the plating and polishing metal HAP must implement the applicable management practices in paragraphs (1) through (12), as practicable.

(1) Minimize bath agitation when removing any parts processed in the tank, as practicable except when necessary to meet part quality requirements.

(2) Maximize the draining of bath solution back into the tank, as practicable, by extending drip time when removing parts from the tank; using drain boards (also known as drip shields); or withdrawing parts slowly from the tank, as practicable.

(3) Optimize the design of barrels, racks, and parts to minimize dragout of bath solution (such as by using slotted barrels and tilted racks, or by designing parts with flow-through holes to allow the tank solution to drip back into the tank), as practicable.

(4) Use tank covers, if already owned and available at the facility, whenever practicable.

(5) Minimize or reduce heating of process tanks, as practicable (e.g., when doing so would not interrupt production or adversely affect part quality).

(6) Perform regular repair, maintenance, and preventive maintenance of racks, barrels, and other equipment associated with affected sources, as practicable.

(7) Minimize bath contamination, such as through the prevention or quick recovery of dropped parts, use of distilled/de-ionized water, water filtration, pre-cleaning of parts to be plated, and thorough rinsing of pre-treated parts to be plated, as practicable.

(8) Maintain quality control of chemicals, and chemical and other bath ingredient concentrations in the tanks, as practicable.

(9) Perform general good housekeeping, such as regular sweeping or vacuuming, if needed, and periodic washdowns, as practicable.

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(10) Minimize spills and overflow of tanks, as practicable.

(11) Use squeegee rolls in continuous or reel-to-reel plating tanks, as practicable.

(12) Perform regular inspections to identify leaks and other opportunities for pollution prevention.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

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

**Condition 9: Tank Covering Initial Compliance – Batch Process
Effective for entire length of Permit**

Applicable Federal Requirement: 40CFR 63.11508(c)(3), Subpart WWWWWW

Item 9.1:

This Condition applies to Emission Unit: U-00001

Process: M15

Item 9.2:

The owner or operator of an affected batch electrolytic process tank, as defined in 40CFR 63.11511 that contains one or more of the plating and polishing metal HAP and which is subject to the requirements in 40CFR 63.11507(a) and uses a tank cover, as defined in 40CFR 63.11511, to comply with 40CFR 63 WWWWWW, must demonstrate initial compliance according to paragraphs (i) through (iv).

(i) The owner or operator must install a tank cover on the affected tank.

(ii) The owner or operator must state in the Notification of Compliance Status that he/she operates the tank with the cover in place at least 95 percent of the electrolytic process operating time.

(iii) The owner or operator must implement the applicable management practices specified in 40CFR 63.11507(g), as practicable.

(iv) The owner or operator must state in the Notification of Compliance Status that he/she has implemented the applicable management practices specified in 40CFR 63.11507(g), as practicable.

**Condition 10: Compliance Demonstration
Effective for entire length of Permit**

Applicable Federal Requirement: 40CFR 63.11508(d)(2), Subpart WWWWWW

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Item 10.1:

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

Emission Unit: U-00001
Process: M15

Emission Unit: U-00002
Process: M21

Item 10.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator must prepare an annual compliance certification according to the requirements specified in 40 CFR 63.11509(c), “Notification, Reporting, and Recordkeeping,” and keep it in a readily-accessible location for inspector review.

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

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

Condition 11: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement: 40CFR 63.11508(d)(4), Subpart WWWW

Item 11.1:

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

Emission Unit: U-00001
Process: M15

Emission Unit: U-00002
Process: M21

Item 11.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of an affected electroplating, electroforming, or electropolishing tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in 40CFR 63.11507(a) and uses a control system to comply with 40CFR 63 WWWW; an affected dry mechanical polishing operation that is

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subject to 40CFR 63.11507(e); or an affected thermal spraying operation that is subject to 40CFR 63.11507(f)(1) or (2), must demonstrate continuous compliance according to paragraphs (i) through (v).

(i) The owner or operator must operate and maintain the control system according to the manufacturer's specifications and instructions.

(ii) Following any malfunction or failure of the capture or control devices to operate properly, the owner or operator must take immediate corrective action to return the equipment to normal operation according to the manufacturer's specifications and operating instructions.

(iii) The owner or operator must state in his/her annual certification that he/she has operated and maintained the control system according to the manufacturer's specifications and instructions.

(iv) The owner or operator must record the results of all control system inspections, deviations from proper operation, and any corrective action taken.

(v) The owner or operator must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

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

Condition 12: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement: 40CFR 63.11508(d)(6), Subpart WWWW

Item 12.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Process: M15

Item 12.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

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The owner or operator of an affected batch electrolytic process tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements of 40CFR 63.11507(a) or a flash or short-term electroplating tank that contains one or more of the plating and polishing metal HAP and is subject to the requirements in 40CFR 63.11507(b), and complies by operating the affected tank with a cover, must demonstrate continuous compliance according to paragraphs (i) through (iii).

(i) The owner or operator must operate the tank with the cover in place at least 95 percent of the electrolytic process operating time.

(ii) The owner or operator must record the times that the tank is operated and the times that the tank is covered on a daily basis.

(iii) The owner or operator must state in his/her annual certification that he/she has operated the tank with the cover in place at least 95 percent of the electrolytic process time.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

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

Condition 13: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement: 40CFR 63.11508(d)(8), Subpart WWWW

Item 13.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Process: M15

Item 13.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of an affected tank or other operation that is subject to the management practices specified in 40CFR 63.11507(g) must demonstrate continuous compliance according to paragraphs (i) and (ii).

(i) The owner or operator must implement the applicable management practices during all times that the affected

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tank or process is in operation.

(ii) The owner or operator must state in his/her annual compliance certification that he/she has implemented the applicable management practices, as practicable.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

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

Condition 14: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement: 40CFR 63.11509(a), Subpart WWWW

Item 14.1:

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: U-00001

Process: M15

Emission Unit: U-00002

Process: M21

Regulated Contaminant(s):

CAS No: 0NY100-00-0 TOTAL HAP

Item 14.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of an affected source, as defined in 40CFR 63.11505(a) must submit an Initial Notification in accordance with paragraphs (1) through (4) by the dates specified.

(1) The Initial Notification must include the information specified in 40CFR 63.9(b)(2)(i) through (iv) of the General Provisions.

(2) The Initial Notification must include a description of the compliance method (e.g., use of wetting agent/fume suppressant) for each affected source.

(3) If the owner or operator starts up his/her affected source on or before July 1, 2008, he/she must submit an Initial Notification not later than 120 calendar days after July 1, 2008.

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(4) If the owner or operator starts up his/her new affected source after July 1, 2008, he/she must submit an Initial Notification not later than 120 calendar days after facility becomes subject to 40CFR 63 WWWWWW.

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 15: Compliance Demonstration
Effective for entire length of Permit**

Applicable Federal Requirement: 40CFR 63.11509(b), Subpart WWWWWW

Item 15.1:

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

Emission Unit: U-00001
Process: M15

Emission Unit: U-00002
Process: M21

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

Item 15.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of an affected source must submit a Notification of Compliance Status in accordance with paragraphs (1) and (3).

(1) The Notification of Compliance Status must be submitted before the close of business on the compliance date specified in 40CFR 63.11506.

(2) The Notification of Compliance Status must include the items specified in paragraphs (i) through (iv).

(i) List of affected sources and the plating and polishing metal HAP used in, or emitted by, those sources.

(ii) Methods used to comply with the applicable management practices and equipment standards.

(iii) Description of the capture and emission control systems used to comply with the applicable equipment standards.

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(iv) Statement by the owner or operator of the affected source as to whether the source is in compliance with the applicable standards or other requirements.

(3) If a facility makes a change to any items in (b)(2)(i), iii, and (iv) of this section that does not result in a deviation, an amended Notification of Compliance Status should be submitted within 30 days of the change.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 16: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement: 40CFR 63.11509(f), Subpart WWWWWW

Item 16.1:

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

Emission Unit: U-00001
Process: M15

Emission Unit: U-00002
Process: M21

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

Item 16.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator must keep each record for a minimum of 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. He/she must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40CFR 63.10(b)(1). He/she may keep the records offsite for the remaining 3 years.

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 17: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement: 40CFR 63.11507(f)(2), Subpart WWWWWW

Permit ID: 5-4140-00235/00002

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Item 17.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00002

Process: M21

Item 17.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

For new permanent thermal spraying operations, the owner or operator must operate a capture system that collects PM emissions from the thermal spraying process and transports the emissions to a fabric or HEPA filter, according to paragraphs (i) and (ii).

(i) The owner or operator must operate all capture and control devices according to the manufacturer's specifications and instructions.

(ii) The owner or operator must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

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

Condition 18: New Permanent Thermal Spraying Initial Compliance Effective for entire length of Permit

Applicable Federal Requirement: 40CFR 63.11508(c)(10), Subpart WWWWWW

Item 18.1:

This Condition applies to Emission Unit: U-00002

Process: M21

Item 18.2:

The owner or operator of a new affected permanent thermal spraying operation that applies one or more of the plating and polishing metal HAP and is subject to the requirements in 40CFR 63.11507(f)(2) must demonstrate initial compliance according to paragraphs (i) through (iii).

(i) The owner or operator must install and operate a control system that is designed to capture PM emissions from the thermal spraying operation and exhaust them to a fabric or HEPA filter.

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(ii) The owner or operator must state in the Notification of Compliance Status that he/she has installed and operate the control system according to the manufacturer's specifications and instructions.

(iii) The owner or operator must keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

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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 in 6 NYCRR 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 demonstrate, 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 facility was being properly operated and maintained;

(3) during the period of the emergency the facility owner or operator took all reasonable steps to minimize the 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 any 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 malfunction 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

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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 19: Contaminant List
Effective for entire length of Permit

Applicable State Requirement:ECL 19-0301**Item 19.1:**

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: 0NY075-00-0
Name: PARTICULATES

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CAS No: 0NY100-00-0

Name: TOTAL HAP

CAS No: 0NY998-00-0

Name: VOC

Condition 20: Malfunctions and Start-up/Shutdown Activities
Effective for entire length of Permit

Applicable State Requirement: 6 NYCRR 201-1.4

Item 20.1:

(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 maintenance and start-up/shutdown activities when they are expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when required by a permit condition or upon request by the department. Such reports shall state whether an exceedance occurred and if it was unavoidable, include the time, frequency and duration of the exceedance, 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 monitoring and quarterly reporting requirements need not submit additional reports of exceedances to the department.

(c) In the event that air contaminant emissions exceed any applicable emission standard due to a malfunction, the facility owner or operator shall 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. In addition, the facility owner or operator shall compile and maintain a record of all malfunctions. Such records shall be maintained at the facility for a period of at least five years and must be made available to the department upon request. 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, the air contaminants emitted, and the resulting emission rates and/or opacity.

(d) The department may also require the facility 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.

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Condition 21: Emission Unit Definition
Effective for entire length of Permit

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 21.1:

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 and the nickel and cobalt electroplating process. Proprietary coatings are applied to stainless steel plates, and cured in electric ovens.

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.

These processes are conducted for research and development (R&D) purposes, but may be used for manufacturing in the future. Therefore, there are two versions of each process to define these activities.

Building(s): HR

Item 21.2:

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-2.5.

The spray cells are used to apply metals coatings that will be subject to 40 CFR Part 63, Subpart WWWW when nickel coatings are applied for manufacturing purposes.

Building(s): HR

Condition 22: Renewal deadlines for state facility permits
Effective for entire length of Permit

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

Item 22.1:

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

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expiration for permit renewal purposes.

Condition 23: Compliance Demonstration
Effective for entire length of Permit

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

Item 23.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 23.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

At the time of this permit issuance, the facility is engaged in research and development (R&D) activities for solid oxide fuel cells, with the intention to transition to commercial manufacturing in the future.

Operating R&D processes are exempt from 40 CFR 63 Subpart WWWWW, however when the facility commences commercial manufacturing operations, the facility will be subject to this Subpart when manufacturing. Therefore, the Department requires that the facility owner or operator notify the Department in writing at least thirty (30) days in advance of making such change.

On an annual basis, the responsible official shall provide the Department with daily totals, calculated monthly, of when the facility operated R&D activities and when the facility manufactured fuel cells for commercial manufacturing purposes.

All records shall be maintained onsite for a period of at least five (5) years and shall be made available to the Department upon request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

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

Condition 24: Compliance Demonstration
Effective for entire length of Permit

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

Item 24.1:

The Compliance Demonstration activity will be performed for the Facility.

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Item 24.2:

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: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 25: Air pollution prohibited
Effective for entire length of Permit

Applicable State Requirement:6 NYCRR 211.1

Item 25.1:

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 26: Compliance Demonstration
Effective for entire length of Permit

Applicable State Requirement:6 NYCRR 212-2.1 (a)

Item 26.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007440-02-0 NICKEL METAL AND INSOLUBLE COMPOUNDS

Item 26.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

The facility will maintain total emissions of nickel compounds from the thermal spray cells and the

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electroplating tanks to less than or equal to 9.9 pounds per year. The facility will document the amount of nickel processed in the spray cells and operating time of the electroplating tanks to calculate the emission rate on a rolling 12-month basis.

Nickel emissions from the thermal spray cells are controlled by Ultra Low Penetrating Air (ULPA) filters that provide a 99.999% reduction in particulate matter emissions, based on manufacturer specifications. This control efficiency is factored into the 12-month rolling total nickel emission rate.

On an annual basis, the responsible official shall provide the Department with a summary report outlining the 12-month rolling total for nickel compound emissions to demonstrate compliance with the emission limit and certify that their nickel emissions do not exceed the specified amount.

All of the records required to document compliance with this emission limit shall be maintained onsite for a period of at least five (5) years and shall be made available to the Department upon request.

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 TOTAL, ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

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

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

**Condition 27: Emission Point Definition By Emission Unit
Effective for entire length of Permit**

Applicable State Requirement: 6 NYCRR Subpart 201-5

Item 27.1:

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.): 4758.239 NYTME (km.): 600.489 Building: HR

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Item 27.2:

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.): 4758.237 NYTME (km.): 600.538 Building: HR

Emission Point: SC002

Height (ft.): 13

Diameter (in.): 24

NYTMN (km.): 4758.232 NYTME (km.): 600.538 Building: HR

Emission Point: SC003

Height (ft.): 13

Diameter (in.): 24

NYTMN (km.): 4758.229 NYTME (km.): 600.538 Building: HR

Emission Point: SC004

Height (ft.): 13

Diameter (in.): 24

NYTMN (km.): 4758.226 NYTME (km.): 600.538 Building: HR

Condition 28: Process Definition By Emission Unit
Effective for entire length of Permit

Applicable State Requirement: 6 NYCRR Subpart 201-5

Item 28.1:

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

Emission Unit: U-00001

Process: M11

Source Classification Code: 4-02-025-99

Process Description:

This process is cathode surface coating when conducted
for manufacturing purposes.

Emission Source/Control: 101-1 - Process

Item 28.2:

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

Emission Unit: U-00001

Process: M12

Source Classification Code: 4-02-008-30

Process Description:

This process is cathode drying in electric drying ovens
when conducted for manufacturing purposes.

Emission Source/Control: 102-1 - Process

Emission Source/Control: 102-2 - Process

Emission Source/Control: 102-3 - Process

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Emission Source/Control: 102-4 - Process

Item 28.3:

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

Emission Unit: U-00001

Process: M13

Source Classification Code: 4-02-025-33

Process Description:

This process is the automated spray application of aqueous nitrate solutions to metal substrate using the topcoat spray robots when conducted for manufacturing purposes.

Emission Source/Control: 104-2 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 104-1 - Process

Item 28.4:

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

Emission Unit: U-00001

Process: M14

Source Classification Code: 4-02-008-30

Process Description:

This process is curing of the aqueous coatings in electric curing ovens when conducted for manufacturing purposes.

Emission Source/Control: 105-1 - Process

Emission Source/Control: 105-2 - Process

Item 28.5:

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

Emission Unit: U-00001

Process: M15

Source Classification Code: 3-09-010-03

Process Description:

Nickel and cobalt electroplating of stainless steel plates when operating for manufacturing purposes. Nickel electroplating is subject to 40 CFR Part 63, Subpart WWWWW when conducted for manufacturing.

Emission Source/Control: 107-1 - Process

Item 28.6:

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

Emission Unit: U-00001

Process: M16

Source Classification Code: 4-02-025-42

Process Description:

This process is the surface coating of an alumina spray

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onto metal substrate when conducted for manufacturing purposes.

Emission Source/Control: 108-2 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 108-1 - Process

Item 28.7:

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

Emission Unit: U-00001
Process: R11 Source Classification Code: 4-02-025-99
Process Description:
This process is cathode surface coating when conducted for R&D purposes.

Emission Source/Control: 101-1 - Process

Item 28.8:

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

Emission Unit: U-00001
Process: R12 Source Classification Code: 4-02-008-30
Process Description:
This process is cathode drying in electric drying ovens when conducted for R&D purposes.

Emission Source/Control: 102-1 - Process

Emission Source/Control: 102-2 - Process

Emission Source/Control: 102-3 - Process

Emission Source/Control: 102-4 - Process

Item 28.9:

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

Emission Unit: U-00001
Process: R13 Source Classification Code: 4-02-025-33
Process Description:
This process is the automated spray application of aqueous nitrate solutions to metal substrate using the topcoat spray robots when conducted for R&D purposes.

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

Emission Source/Control: 104-1 - Process

Item 28.10:

Permit ID: 5-4140-00235/00002

Facility DEC ID: 5414000235

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

Emission Unit: U-00001

Process: R14

Source Classification Code: 4-02-008-30

Process Description:

This process is curing of the aqueous coatings in electric curing ovens when conducted for R&D purposes.

Emission Source/Control: 105-1 - Process

Emission Source/Control: 105-2 - Process

Item 28.11:

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

Emission Unit: U-00001

Process: R15

Source Classification Code: 3-09-010-03

Process Description:

Nickel and cobalt electroplating of stainless steel plates when operating for R&D purposes. Nickel electroplating is not subject to 40 CFR Part 63, Subpart WWWWW when conducted for R&D purposes.

Emission Source/Control: 107-1 - Process

Item 28.12:

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

Emission Unit: U-00001

Process: R16

Source Classification Code: 4-02-025-42

Process Description:

This process is the surface coating of an alumina spray onto metal substrate when conducted for R&D purposes.

Emission Source/Control: 108-2 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 108-1 - Process

Item 28.13:

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

Emission Unit: U-00002

Process: M21

Source Classification Code: 3-09-040-10

Process Description:

This process is the application of anode, electrolyte, and GDC coatings in any of the four thermal spray cells when conducted for manufacturing purposes. The thermal spray application of nickel is subject to 40 CFR Part 63, Subpart WWWWW when conducted for manufacturing purposes.

Emission Source/Control: 201-2 - Control

Permit ID: 5-4140-00235/00002

Facility DEC ID: 5414000235

Control Type: FABRIC FILTER

Emission Source/Control: 201-3 - Control
Control Type: ULTRA-LOW PARTICULATE AIR (ULPA)
FILTER

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

Emission Source/Control: 202-3 - Control
Control Type: ULTRA-LOW PARTICULATE AIR (ULPA)
FILTER

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

Emission Source/Control: 203-3 - Control
Control Type: ULTRA-LOW PARTICULATE AIR (ULPA)
FILTER

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

Emission Source/Control: 204-3 - Control
Control Type: ULTRA-LOW PARTICULATE AIR (ULPA)
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 28.14:

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

Emission Unit: U-00002
Process: R21 Source Classification Code: 3-09-040-10
Process Description:

This process is the application of anode, electrolyte, and GDC coatings in any of the four thermal spray cells when conducted for R&D purposes. The thermal spray application of nickel is not subject to 40 CFR Part 63, Subpart WWWW when conducted for R&D purposes.

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

Emission Source/Control: 201-3 - Control
Control Type: ULTRA-LOW PARTICULATE AIR (ULPA)

Permit ID: 5-4140-00235/00002

Facility DEC ID: 5414000235

FILTER

Emission Source/Control: 202-2 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 202-3 - Control

Control Type: ULTRA-LOW PARTICULATE AIR (ULPA)
FILTER

Emission Source/Control: 203-2 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 203-3 - Control

Control Type: ULTRA-LOW PARTICULATE AIR (ULPA)
FILTER

Emission Source/Control: 204-2 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 204-3 - Control

Control Type: ULTRA-LOW PARTICULATE AIR (ULPA)
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

Permit ID: 5-4140-00235/00002

Facility DEC ID: 5414000235