



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air Title V Facility
Permit ID: 9-2911-00078/00009
Effective Date:

Expiration Date:

Permit Issued To: GLOBE METALLURGICAL INC
PO BOX 157
BEVERLY, OH 45715-0157

Contact: ARDEN SIMS
GLOBE METALLURGICAL INC
PO BOX 157
BEVERLY, OH 45715-0157
(740) 984-8582

Facility: GLOBE METALLURGICAL INC
3807 HIGHLAND AVE
NIAGARA FALLS, NY 14305

Contact: MATT GREENE
GLOBE METTALURGICAL INC
PO BOX 157
BEVERLY, OH 45715
(740) 984-8608

Description:

Globe Metallurgical, Inc., located in Niagara Falls, N.Y., is engaged in the production of silicon metals. The facility is a major source of emissions of sulfur dioxide(SO₂), carbon monoxide(CO), and nitrogen oxides(NO_x) and therefore subject to the Title V permitting requirements of 40 CFR 70 and 6 NYCRR, Part 201-6. This permit represents the renewal of the Title V permit issued on 09/21/2004. Since the renewal the facility has not been operational. In preparation for re-starting operations, the baghouses associated with each furnace have been upgraded. Also, the tapping fumes from each furnace are now directed to the respective furnace baghouse. The associated tap fume baghouses identified as emission point EP001 and EP004 have been removed.

Globe, as a minor source of hazardous air pollutants (HAPs) facility is subject to the area source National Emissions Standards for Hazardous Air Pollutants (NESHAPs) 40 Cfr Part 63.11524 Subpart YYYYYY promulgated in December 2008. The facility is required to conduct visible emissions evaluations of the furnace baghouses and fugitives from the furnace building using Methods 9 and 22. The previous permits incorporated conditions reflecting the Compliance Assurance Monitoring



(CAM) requirements of 40 CFR Part 64. The NESHAP satisfies CAM monitoring requirements and exempts the furnaces from CAM applicability.

The facility produces high purity silicon metal in two submerged arc semi-enclosed electric furnaces identified as #9 and #11 furnaces in emission unit EAFURN. The submerged arc process is a reduction smelting operation accomplished by conversion of electrical energy to heat. Carbon electrodes are suspended vertically and submerged into the furnace to a depth of 7 to 10 feet. An alternating current applied to the electrodes causes a current flow through the charge from the electrode tips to the furnace hearth providing a reaction zone of temperatures up to 6000 degrees F.

These furnaces will operate continuously 24 hours per day with the exception of shutdown periods for maintenance and repair. Reactants consisting of coal, charcoal, petroleum coke, or other forms of coke, wood chips, and quartz are mixed and added at the top of each furnace. Carbon needed as a reducing agent is supplied by the electrodes, petroleum coke, charcoal, coal, and wood chips. At high temperatures in the reaction zone, the carbon sources react with silicon dioxide gas to form carbon monoxide and silicon. Oxygen is introduced to remove impurities.

Molten product is tapped from the furnace through a tap hole located at the bottom of the furnace at hearth level. Molten metal and slag flow from the tap hole into a ladle and then into molds. Hoods capture gaseous and particulate emissions from the furnaces which are ducted to two separate, dedicated baghouses, identified as emission points EP002 and EP003.

The two electric arc furnaces are subject to the process weight emission limits for ferroalloy furnaces as determined by Table 5 of 6NYCRR, Part 212.9(e). Permissible particulate emissions are calculated using the formula shown in Table 4 of 212.9(d) and based on the process weight input of 25,098 pounds of raw materials per furnace are 21.3 pounds per hour per emission point.

The furnaces each having hourly nitrogen oxide emissions of 87.6 pounds are also subject to the NOx Reasonably Available Control Technology (RACT) compliance requirements of 6NYCRR, Part 212.10. A NOx RACT analysis was submitted with the initial Title V permit and reviewed by this Department and the USEPA. It was determined that there are no feasible control technologies available. Therefore, RACT as no control is incorporated into this permit limiting NOx emissions to 87.6 pounds per hour per furnace and a combined 767.3 tons per year of NOx. In addition, the facility is required to perform regular refractory maintenance on these



furnaces and continue to investigate emissions reductions technologies. The RACT compliance plan was submitted to the USEPA as a source specific SIP revision.

Particulate emissions from the baghouses associated with crushing and grinding and material handling, emission points EP06A and EP007 are limited to .05 gr/dscf.

It has been determined by this Department's legal staff and Albany that the coal and petroleum coke or other forms of coke, used in the furnace charge are a fuel source subject to the sulfur in fuel limitations of 6NYCRR, Part 225-1.2(d) Table 2. The maximum allowable sulfur content is 1.7 lb/million Btu gross heat content. The average allowable is 1.4 lb/million Btu during any consecutive three month period. The sulfur content of coke used can range from 2 % to 5.5% by weight which would exceed the sulfur limitation. However, since coke provides more fixed carbon, one pound of coke is equivalent to 1.5 pounds of coal and generates less Nox per pound of material produced. Therefore, pursuant to 225-1.5(b) a general variance will allow the usage of coke exceeding the sulfur limitation in combination with coal in the furnace charge provided that the emissions from the combined usage do not exceed sulfur dioxide emissions, on the basis of pounds of sulfur per million Btu heat input, at a rate greater than that from fuels meeting mandated sulfur limits. Coal and coke will be combined in a ratio of a minimum 4:1 to ensure compliance with the limit.

Inspection of the baghouses for the #9 and #11 furnaces will be conducted on a daily basis. Each furnace collector has a dedicated computer system which allows personnel to evaluate baghouse and dust handling operating parameters and initiate preventative maintenance, diagnostic, and corrective maintenance programs. In addition to daily computer alarms and diagnostic checks, additional maintenance activities are performed at weekly and monthly intervals. The remaining collectors will be inspected daily for pressure. Additional maintenance activities are conducted on weekly and monthly intervals.

Records of minor corrective actions including maintenance, electrical and operational changes will be recorded in baghouse logbooks. All other corrective actions will be filed with the visible emissions observation and maintenance inspection logs.

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: DOUGLAS E BORSCHEL
270 MICHIGAN AVE
BUFFALO, NY 14203-2999

Authorized Signature: _____
Date: ____ / ____ / _____



Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

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

Item B: Permittee's Contractors to Comply with Permit

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

Item C: Permittee Responsible for Obtaining Other Required Permits

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

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

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



LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions

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

Facility Level

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



DEC GENERAL CONDITIONS

**** General Provisions ****

For the purpose of your Title V permit, the following section contains state-only enforceable terms and conditions.

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: 6NYCRR 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: 6NYCRR 621.13

Item 4.1:

The Department reserves the right 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 9 HEADQUARTERS
Applicable State Requirement: 6NYCRR 621.6(a)

Item 5.1:

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

NYSDEC Regional Permit Administrator
Region 9 Headquarters
Division of Environmental Permits
270 Michigan Avenue
Buffalo, NY 14203-2915
(716) 851-7165



Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT

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PO BOX 157
BEVERLY, OH 45715-0157

Facility: GLOBE METALLURGICAL INC
3807 HIGHLAND AVE
NIAGARA FALLS, NY 14305

Authorized Activity By Standard Industrial Classification Code:
3313 - ELECTROMETALLURGICAL PRODUCTS
3339 - PRIMARY NONFERROUS METALS, NEC

Permit Effective Date:

Permit Expiration Date:



LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions

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

Facility Level

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

FEDERALLY ENFORCEABLE CONDITIONS

Facility Level

- 1 6NYCRR 200.6: Acceptable Ambient Air Quality
- 2 6NYCRR 201-6.5(a)(7): Fees
- 3 6NYCRR 201-6.5(c): Recordkeeping and reporting of compliance monitoring
- 4 6NYCRR 201-6.5(c)(2): Monitoring, Related Recordkeeping, and Reporting Requirements.
- 5 6NYCRR 201-6.5(c)(3)(ii): Compliance Certification
- 6 6NYCRR 201-6.5(e): Compliance Certification
- 7 6NYCRR 202-2.1: Compliance Certification
- 8 6NYCRR 202-2.5: Recordkeeping requirements
- 9 6NYCRR 215: Open Fires Prohibited at Industrial and Commercial Sites
- 10 6NYCRR 200.7: Maintenance of Equipment
- 11 6NYCRR 201-1.7: Recycling and Salvage
- 12 6NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 13 6NYCRR 201-3.2(a): Exempt Sources - Proof of Eligibility
- 14 6NYCRR 201-3.3(a): Trivial Sources - Proof of Eligibility
- 15 6NYCRR 201-6.5(a)(4): Standard Requirement - Provide Information
- 16 6NYCRR 201-6.5(a)(8): General Condition - Right to Inspect
- 17 6NYCRR 201-6.5(d)(5): Standard Requirements - Progress Reports
- 18 6NYCRR 201-6.5(f)(6): Off Permit Changes
- 19 6NYCRR 202-1.1: Required Emissions Tests
- 20 6NYCRR 211.3: Visible Emissions Limited
- 21 40CFR 68: Accidental release provisions.
- 22 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 23 6NYCRR 201-6: Emission Unit Definition
- 24 6NYCRR 201-6.5(g): Non Applicable requirements
- 25 6NYCRR 225-1.2(d): Sulfur in solid fuel,(effective 1/1/88) for Erie and Niagara Counties.
- 26 6NYCRR 225-1.4: Temporary variances.
- 27 6NYCRR 225-1.5(b): Compliance Certification

Emission Unit Level

- 28 6NYCRR 201-6: Emission Point Definition By Emission Unit
- 29 6NYCRR 201-6: Process Definition By Emission Unit

EU=E-AFURN

- 30 6NYCRR 212.3(a): Compliance Certification



- 31 6NYCRR 212.9(d): Compliance Certification
- 32 40CFR 63, Subpart YYYYYY: Compliance Certification
- 33 40CFR 63, Subpart YYYYYY: Compliance Certification
- 34 40CFR 63, Subpart YYYYYY: Compliance Certification

EU=E-AFURN,Proc=P02

- 35 6NYCRR 212.10(c)(3): Compliance Certification

EU=P-ROFIN

- 36 6NYCRR 212.4(c): Compliance Certification
- 37 6NYCRR 212.4(c): Compliance Certification
- 38 6NYCRR 212.6(a): Compliance Certification

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

- 39 ECL 19-0301: Contaminant List
- 40 6NYCRR 201-1.4: Unavoidable noncompliance and violations
- 41 6NYCRR 211.2: Air pollution prohibited



FEDERALLY ENFORCEABLE CONDITIONS

****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

The items listed below are not subject to the annual compliance certification requirements under Title V. Permittees may also have other obligations under regulations of general applicability.

Item A: Emergency Defense - 6NYCRR Part 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 B: Public Access to Recordkeeping for Title V Facilities - 6NYCRR Part 201-1.10(b)

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.



- Item C: Timely Application for the Renewal of Title V Permits - 6 NYCRR Part 201-6.3(a)(4)**
Owners and/or operators of facilities having an issued Title V 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.
- Item D: Certification by a Responsible Official - 6 NYCRR Part 201-6.3(d)(12)**
Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- Item E: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.5(a)(2)**
The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
- Item F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(a)(3)**
This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR Part 201-6.5(a)(5)**
It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.
- Item H: Property Rights - 6 NYCRR Part 201-6.5(a)(6)**
This permit does not convey any property rights of any sort or any exclusive privilege.
- Item I: Severability - 6 NYCRR Part 201-6.5(a)(9)**



If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

Item J: Permit Shield - 6 NYCRR Part 201-6.5(g)

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

Item K: Reopening for Cause - 6 NYCRR Part 201-6.5(i)

This Title V permit shall be reopened and revised under any of the following circumstances:

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the



effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

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.

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS
SUBJECT TO ANNUAL CERTIFICATIONS AT ALL TIMES**

The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements at all times.

**Condition 1: Acceptable Ambient Air Quality
Effective for entire length of Permit**

Applicable Federal Requirement:6NYCRR 200.6

Item 1.1:

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.

**Condition 2: Fees
Effective for entire length of Permit**

Applicable Federal Requirement:6NYCRR 201-6.5(a)(7)

Item 2.1:

The owner and/or operator of a stationary source shall pay fees to the Department consistent with the fee schedule authorized by ECL 72-0302.

**Condition 3: Recordkeeping and reporting of compliance monitoring
Effective for entire length of Permit**

Applicable Federal Requirement:6NYCRR 201-6.5(c)

Item 3.1:

The following information must be included in any required compliance monitoring records and reports:



- (i) The date, place, and time of sampling or measurements;
- (ii) The date(s) analyses were performed;
- (iii) The company or entity that performed the analyses;
- (iv) The analytical techniques or methods used including quality assurance and quality control procedures if required;
- (v) The results of such analyses including quality assurance data where required; and
- (vi) The operating conditions as existing at the time of sampling or measurement.

Any deviation from permit requirements must be clearly identified in all records and reports. Reports must be certified by a responsible official, consistent with Section 201-6.3 of this Part 201.

Condition 4: Monitoring, Related Recordkeeping, and Reporting Requirements.
Effective for entire length of Permit

Applicable Federal Requirement: 6NYCRR 201-6.5(c)(2)

Item 4.1:

Compliance monitoring and recordkeeping shall be conducted according to the terms and conditions contained in this permit and shall follow all quality assurance requirements found in applicable regulations. Records of all monitoring data and support information must be retained for a period of at least 5 years from the date of the monitoring, sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

Condition 5: Compliance Certification
Effective for entire length of Permit

Applicable Federal Requirement: 6NYCRR 201-6.5(c)(3)(ii)

Item 5.1:

The Compliance Certification activity will be performed for the Facility.

Item 5.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

To meet the requirements of this facility permit with respect to reporting, the permittee must:

Submit reports of any required monitoring at a minimum frequency of every 6 months, based on a calendar year reporting schedule. These reports shall be submitted to



the Department within 30 days after the end of a reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the responsible official for this facility.

Notify the Department and report permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations shall be submitted to the permitting authority based on the following schedule:

(1) For emissions of a hazardous air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.

(2) For emissions of any regulated air pollutant, excluding those listed in paragraph (1) of this section, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.

(3) For all other deviations from permit requirements, the report shall be contained in the 6 month monitoring report required above.

(4) This permit may contain a more stringent reporting requirement than required by paragraphs (1), (2) or (3) above. If more stringent reporting requirements have been placed in this permit or exist in applicable requirements that apply to this facility, the more stringent reporting requirement shall apply.

If above paragraphs (1) or (2) are met, the source must notify the permitting authority by telephone during normal business hours at the Regional Office of jurisdiction for this permit, attention Regional Air Pollution Control Engineer (RAPCE) according to the timetable listed in paragraphs (1) and (2) of this section. For deviations and incidences that must be reported outside of normal business hours, on weekends, or holidays, the DEC Spill Hotline phone number at 1-800-457-7362 shall be used. A written notice, certified by a responsible official consistent with 6 NYCRR Part 201-6.3(d)(12), must be submitted within 10 working days of an occurrence for



deviations reported under (1) and (2). All deviations reported under paragraphs (1) and (2) of this section must also be identified in the 6 month monitoring report required above.

The provisions of 6 NYCRR 201-1.4 shall apply if the permittee seeks to have a violation excused unless otherwise limited by regulation. In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets. Notwithstanding any recordkeeping and reporting requirements in 6 NYCRR 201-1.4, reports of any deviations shall not be on a less frequent basis than the reporting periods described in paragraphs (1) and (4) above.

In the case of any condition contained in this permit with a reporting requirement of "Upon request by regulatory agency" the permittee shall include in the semiannual report, a statement for each such condition that the monitoring or recordkeeping was performed as required or requested and a listing of all instances of deviations from these requirements.

In the case of any emission testing performed during the previous six month reporting period, either due to a request by the Department, EPA, or a regulatory requirement, the permittee shall include in the semiannual report a summary of the testing results and shall indicate whether or not the Department or EPA has approved the results.

All semiannual reports shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office). Mailing addresses for the above referenced persons are contained in the monitoring condition for 6 NYCRR Part 201-6.5(e), contained elsewhere in this permit.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

Condition 6: Compliance Certification
Effective for entire length of Permit



Applicable Federal Requirement:6NYCRR 201-6.5(e)

Item 6.1:

The Compliance Certification activity will be performed for the Facility.

Item 6.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Requirements for compliance certifications with terms and conditions contained in this facility permit include the following:

- i. Compliance certifications shall contain:
 - the identification of each term or condition of the permit that is the basis of the certification;
 - the compliance status;
 - whether compliance was continuous or intermittent;
 - the method(s) used for determining the compliance status of the facility, currently and over the reporting period consistent with the monitoring and related recordkeeping and reporting requirements of this permit;
 - such other facts as the Department may require to determine the compliance status of the facility as specified in any special permit terms or conditions; and
 - such additional requirements as may be specified elsewhere in this permit related to compliance certification.
- ii. The responsible official must include in the annual certification report all terms and conditions contained in this permit which are identified as being subject to certification, including emission limitations, standards, or work practices. That is, the provisions labeled herein as "Compliance Certification" are not the only provisions of this permit for which an annual certification is required.
- iii. Compliance certifications shall be submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department.
- iv. All compliance certifications shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance



(BQA) in the DEC central office). Please send annual compliance certifications to Chief of the Stationary Source Compliance Section, the Region 2 EPA representative for the Administrator, at the following address:

USEPA Region 2
Air Compliance Branch
290 Broadway
New York, NY 10007-1866

The address for the RAPCE is as follows:

270 Michigan Avenue
Buffalo, NY 14203-2999

The address for the BQA is as follows:

NYSDEC
Bureau of Quality Assurance
625 Broadway
Albany, NY 12233-3258

Monitoring Frequency: ANNUALLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2010.
Subsequent reports are due on the same day each year

Condition 7: Compliance Certification
Effective for entire length of Permit

Applicable Federal Requirement:6NYCRR 202-2.1

Item 7.1:

The Compliance Certification activity will be performed for the Facility.

Item 7.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year. Statements are to be mailed to: New York State Department of Environmental Conservation, Division of Air Resources, Bureau of Air Quality Planning, 625 Broadway, Albany NY 12233-3251

Monitoring Frequency: ANNUALLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due by April 15th for previous calendar year

Condition 8: Recordkeeping requirements



Effective for entire length of Permit

Applicable Federal Requirement:6NYCRR 201-1.7

Item 11.1:

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 the ECL.

Condition 12: Prohibition of Reintroduction of Collected Contaminants to the air

Effective for entire length of Permit

Applicable Federal Requirement:6NYCRR 201-1.8

Item 12.1:

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.

Condition 13: Exempt Sources - Proof of Eligibility
Effective for entire length of Permit

Applicable Federal Requirement:6NYCRR 201-3.2(a)

Item 13.1:

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 this Subpart. 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 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.

Condition 14: Trivial Sources - Proof of Eligibility
Effective for entire length of Permit

Applicable Federal Requirement:6NYCRR 201-3.3(a)

Item 14.1:

The owner and/or operator of an emission source or unit that is listed as being trivial in this Part may be required to certify that it operates within the specific criteria described in this Subpart. 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 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.

Condition 15: Standard Requirement - Provide Information
Effective for entire length of Permit



Condition 18: Off Permit Changes
Effective for entire length of Permit

Applicable Federal Requirement:6NYCRR 201-6.5(f)(6)

Item 18.1:

No permit revision will be required for operating changes that contravene an express permit term, provided that such changes would not violate applicable requirements as defined under this Part or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting, or compliance certification permit terms and conditions. Such changes may be made without requiring a permit revision, if the changes are not modifications under any provision of title I of the act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions) provided that the facility provides the administrator and the department with written notification as required below in advance of the proposed changes within a minimum of seven days. The facility owner or operator, and the department shall attach each such notice to their copy of the relevant permit.

(i) For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

(ii) The permit shield described in section 6 NYCRR 201-6.6 shall not apply to any change made pursuant to this paragraph.

Condition 19: Required Emissions Tests
Effective for entire length of Permit

Applicable Federal Requirement:6NYCRR 202-1.1

Item 19.1:

For the purpose of ascertaining compliance or non-compliance with any air pollution control code, rule or regulation, the commissioner may require the person who owns such air contamination source to submit an acceptable report of measured emissions within a stated time. Such person shall bear the cost of measurement and preparing the report of measured emissions. Failure of such person to submit a report acceptable to the commissioner within the time stated shall be sufficient reason for the commissioner to suspend or deny a certificate to operate.

Condition 20: Visible Emissions Limited
Effective for entire length of Permit

Applicable Federal Requirement:6NYCRR 211.3

Item 20.1:

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 21: Accidental release provisions.
Effective for entire length of Permit



Applicable Federal Requirement:40CFR 68

Item 21.1:

If a chemical is listed in Tables 1,2,3 or 4 of 40 CFR §68.130 is present in a process in quantities greater than the threshold quantity listed in Tables 1,2,3 or 4, the following requirements will apply:

- a) The owner or operator shall comply with the provisions of 40 CFR Part 68 and;
- b) The owner or operator shall submit at the time of permit issuance (if not previously submitted) one of the following, if such quantities are present:
 - 1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR §68.10(a) or,
 - 2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan. Information should be submitted to:

Risk Management Plan Reporting Center
C/O CSC
8400 Corporate Dr
Carrollton, Md. 20785

**Condition 22: Recycling and Emissions Reduction
Effective for entire length of Permit**

Applicable Federal Requirement:40CFR 82, Subpart F

Item 22.1:

The permittee shall comply with all applicable provisions of 40 CFR Part 82.

The following conditions are subject to annual compliance certification requirements for Title V permits only.

**Condition 23: Emission Unit Definition
Effective for entire length of Permit**

Applicable Federal Requirement:6NYCRR 201-6

Item 23.1:

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

Emission Unit: E-AFURN

Emission Unit Description:

The No. 9 and No. 11 electric arc furnaces convert gravel, woodchips, coke, charcoal and coal into silicon



metal. The furnaces are both rated at 22 megawatts per hour of input. The processes which comprise this unit are raw material handling and silicon metal melting and tapping. Each furnace is equipped with a baghouse for controlling particulate emissions. A main hood is installed on each furnace and ducted to the baghouses. Emissions from the No. 9 furnace are directed to emission point EP002 and from the No. 11 furnace to emission point EP003.

Building(s): 00FURNBLDG

Item 23.2:

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

Emission Unit: P-ROFIN

Emission Unit Description:

Silicon metal is processed at No. 3 sizing plant. The sizing plant crushes and screens the silicon metal preparing it for distribution. Silicon metal sizing and product handling are the two processes in this unit. Emissions are controlled with baghouses and through the use of covered conveyors and enclosed storage sheds.

Building(s): 00FURNBLDG

Item 23.3:

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

Emission Unit: R-DWYPK

Emission Unit Description:

Plant roadways and parking lots are located throughout the facility with fugitive emissions. While some areas are unpaved, the majority of higher traffic areas are paved.

**Condition 24: Non Applicable requirements
Effective for entire length of Permit**

Applicable Federal Requirement:6NYCRR 201-6.5(g)

Item 24.1:

This section contains a summary of those requirements that have been specifically identified as being not applicable to this facility and/or emission units, emission points, processes and/or emission sources within this facility. The summary also includes a justification for classifying any such requirements as non-applicable.

40CFR 64

Emission Unit: EAFURN

Reason: This emission unit is now exempted from the CAM requirements because it is subject to the NESHAP for area sources at Ferroalloy Production Facilities, 40 CFR Part 63.11524 Subpart YYYYYY. The CAM rule exempts post November 15, 1990 emission standards (NESHAPS and NSPS) where the monitoring requirements satisfy CAM. The NESHAP is consistent with the level of monitoring previously



approved as acceptable for CAM.

Condition 25: Sulfur in solid fuel,(effective 1/1/88) for Erie and Niagara Counties.

Effective for entire length of Permit

Applicable Federal Requirement:6NYCRR 225-1.2(d)

Item 25.1:

Sulfur in solid fuel, (pounds of sulfur per million Btu gross heat content), is limited to 1.7 maximum and 1.4 average. Averages are computed for each emission source by dividing the total sulfur content by the total gross heat content of all solid fuel received during any consecutive three-month period.

Condition 26: Temporary variances.

Effective for entire length of Permit

Applicable Federal Requirement:6NYCRR 225-1.4

Item 26.1:

Upon application by an air contamination source owner or a fuel supplier the commissioner may issue an order granting a temporary variance from the provisions of 6 NYCRR Part 225-1 where it can be shown, to the commissioner's satisfaction, that there is an insufficient supply of conforming fuel, either:

- (1) of the proper type required for use in a particular air contamination source; or
- (2) generally throughout an area of the State.

Condition 27: Compliance Certification

Effective for entire length of Permit

Applicable Federal Requirement:6NYCRR 225-1.5(b)

Item 27.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 27.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

Coke which exceeds the 1.7 lb/million Btu maximum and 1.4 lb/million Btu consecutive three month average, sulfur in fuel limits of 6NYCRR, Part 225-1.2 (d) Table 2 for solid fuel, may be used in combination with coal in the furnace charge on a minimum 4:1 coal/coke ratio.



Globe is required to demonstrate that when using coke with a sulfur content greater than the allowable limit in combination with coal, the sulfur dioxide emissions will not exceed a maximum 3.4 pounds of sulfur dioxide per million Btu heat input and an average 2.8 pounds of sulfur dioxide per million Btu heat input. Averages are computed for each emission source by dividing the total sulfur content by the total gross heat content of all solid fuel received during any consecutive three-month period.

Records will be maintained on-site as follows:

1. Calculations to demonstrate compliance with the sulfur dioxide limit for each shipment of coke received.
2. The sulfur and Btu content of each shipment of coke received.
3. The total amount of coal and coke charged per batch for each furnace.
4. Sampling, compositing and analysis of fuel samples must be done in accordance with methods acceptable to the Department as required by Part 225-1.8(d).
5. Records of fuel analyses shall be kept on-site for a period of 5 years.

Globe shall submit a written report of any exceedance of the equivalent emission rate within 30 days of determining the exceedance.

Process Material: COKE

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 1.7 pounds per million Btus

Reference Test Method: Method Acceptable to the Department

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

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

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

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

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

Applicable Federal Requirement:6NYCRR 201-6

Item 28.1:

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

Emission Unit: E-AFURN



Emission Point: EP002
Height (ft.): 86 Length (in.): 960 Width (in.): 168
Building: 00FURNBLDG

Emission Point: EP003
Height (ft.): 92 Length (in.): 960 Width (in.): 168
Building: 00FURNBLDG

Item 28.2:

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

Emission Unit: P-ROFIN

Emission Point: EP007
Height (ft.): 16 Diameter (in.): 25 Building: 00FURNBLDG

Emission Point: EP06A
Height (ft.): 10 Diameter (in.): 48 Building: 00FURNBLDG

**Condition 29: Process Definition By Emission Unit
Effective for entire length of Permit**

Applicable Federal Requirement:6NYCRR 201-6

Item 29.1:

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

Emission Unit: E-AFURN
Process: P01 Source Classification Code: 3-99-999-94
Process Description:

Raw Material Handling - Raw Material Transfer and Storage operations begin with the receipt of raw materials via truck or rail. Coal, coke, charcoal, gravel, woodchips, and turnings are unloaded via crane to piles or directly to a below grade conveyor or pit. Coal is transferred to the pit, from which it is conveyed up to enclosed raw material storage bins or unloaded to outdoor storage piles. Gravel is unloaded to piles, transported by crane to a conveyor, screened, and conveyed up to enclosed storage bins. Wood chips are dumped from a trailer to the pit and transported up to enclosed storage bins. From indoor bins, the raw materials are weighed and dropped to a skip bucket from which they are transferred to the top of the furnace.

Emission Source/Control: S0001 - Process

Emission Source/Control: S0002 - Process

Item 29.2:



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

Emission Unit: E-AFURN

Process: P02

Source Classification Code: 3-03-007-02

Process Description:

Melting/Tapping - Silicon metal is produced in two submerged-arc semi-enclosed-type electric furnaces identified as emission sources S0003 (furnace No. 9) and S0004 (furnace No. 11) . The submerged arc process is a reduction smelting operation. In the production of silicon metal, quartz is the raw material from which silicon is derived. Carbon is necessary as a reducing agent and is supplied by coke, charcoal, coal, and woodchips. Smelting in the electric arc furnace is accomplished by conversion of electric energy to heat. An alternating current applied to the electrodes causes a current to flow through the charge from the electrode tips to the furnace hearth. This provides a reaction zone of temperature up to 6000 deg. F. To maintain a uniform electric load, electrode depth is continuously varied automatically, as required. At high temperatures in the reaction zone, the carbon sources react chemically with silicon dioxide gas to form carbon monoxide and silicon metal.

Molten product is tapped from the furnace through a taphole located at the bottom of the furnace at hearth level. The molten metal and dross flow from the tap hole into a ladle. The ladle is moved by a hoist to the casting process. The metal is poured into low, flat pans that provide rapid cooling of the molten metal.

Fume and dust generated and captured throughout the production process including tapping are controlled by the baghouses which vent to emission points EP002 and EP003 and then collected and reused or sold.

Emission Source/Control: S0006 - Control

Control Type: FABRIC FILTER

Emission Source/Control: S0007 - Control

Control Type: FABRIC FILTER

Emission Source/Control: S0003 - Process

Emission Source/Control: S0004 - Process

Item 29.3:

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

Emission Unit: P-ROFIN

Process: P03

Source Classification Code: 3-99-999-94

Process Description:



Item 30.1:

The Compliance Certification activity will be performed for:

Emission Unit: E-AFURN

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 30.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The permissible particulate emission rate for each silicon metal production furnace identified as furnaces No. 9 and No. 11 shall be determined using process weight as established by 6NYCRR, Part 212.9(e) and calculated using the formula set forth in 212.9(d) Table 4 . The average input of raw materials for each furnace is 25,098 pounds per hour as demonstrated by the tracking of raw material additions over a 24 hour period. Allowable particulate emissions from each furnace based on the average input have been calculated to be 21.3 pounds per hour.

The average raw material input of 25,098 pounds corresponds with the Nox RACT limit of 767.3 tons per year.

The following are the proposed operational parameters and their target ranges integral to the proper operation of the Globe Metallurgical Baghouses.

#9 Furnace Baghouse, Emissions Source S0006

Fan Amperage Target Range: 155-120

Main Plenum Pressure Target Range: 5-15 Inches Water Column

Main Plenum Temperature: < 500 degrees F

#11 Furnace Baghouse, Emission Source S0007

Fan Amperage Target Range: 183-143

Main Plenum Pressure Target Range: 5-15 Inches Water Column



Main Plenum Temperature: <500 degrees F

Inspection of the baghouses for the #9 and #11 furnaces will be conducted on a daily basis. Each furnace collector has a dedicated computer system which allows personnel to continuously evaluate baghouse and dust handling operating parameters and initiate preventative maintenance, diagnostic, and corrective maintenance programs. In addition to daily computer alarms and diagnostic checks, additional maintenance activities are performed at weekly and monthly intervals.

Records of minor corrective actions including routine maintenance, electrical and operational changes will be recorded in baghouse logbooks. All other corrective actions will be filed with the visible emissions observations and maintenance inspection logs.

Records are to be kept on-site for a period of 5 years and made available to Department representatives on request.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 21.3 pounds per hour

Monitoring Frequency: HOURLY

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

Condition 31: Compliance Certification
Effective for entire length of Permit

Applicable Federal Requirement: 6NYCRR 212.9(d)

Item 31.1:

The Compliance Certification activity will be performed for:

Emission Unit: E-AFURN

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 31.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:



The following equation shall be used to determine permissible solid particulate emissions (based on process weight):

for sources up to 100,000 lb/hr - $E = 0.024P^{(0.67)}$;

where:

E - is the permissible emission rate, and
P - is process weight in lb/hr.

The facility owner/operator shall keep a record of the material processed (i.e., the process weight cited above) and the emission rate of particulates, calculated based on the equation above. These shall be reported to the Department as cited below.

Monitoring Frequency: DAILY

Averaging Method: AVERAGING METHOD - SEE MONITORING

DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 32: Compliance Certification
Effective for entire length of Permit**

Applicable Federal Requirement: 40CFR 63, Subpart YYYYYY

Item 32.1:

The Compliance Certification activity will be performed for:

Emission Unit: E-AFURN

Item 32.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Globe Metallurgical, a minor source of hazardous air pollutants (HAPs), is subject to 40 CFR Part 63.11524 Subpart YYYYYY, the National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for Ferroalloy Production Facility Area Sources.

As an existing area source Globe is required to comply with the requirements of this subpart no later than June 22, 2009.

Notification of Compliance Status must be submitted no



later than 30 days following the completion of the initial compliance demonstration as required by 40 CFR 63.11529. The submission shall include the results of Method 9 visible emissions evaluations for building fugitive and the results of the Method 22 test for the furnace fabric filter VE's.

A copy of each notification and supporting documentation to demonstrate compliance with this subpart including Initial Notification, Notification of Compliance Status and annual compliance certification shall be kept on-site for a period of 5 years and made available to Department representatives on request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 33: Compliance Certification
Effective for entire length of Permit

Applicable Federal Requirement:40CFR 63, Subpart YYYYYY

Item 33.1:

The Compliance Certification activity will be performed for:

Emission Unit: E-AFURN

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 33.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

Globe shall evaluate furnace building opacity in accordance with 40 CFR 63.11526(b) and 63.11528(c) as follows:

Globe shall conduct an initial 60-minute (ten 6-minute averages) opacity test for fugitives from the furnace building containing the electrometallurgical operations using Method 9 no later than August 21, 2009. Globe must conduct a follow-up Method 9 test every six months.

1. Opacity shall not exceed 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 60 percent.

2. The visible emissions evaluation period shall include furnace tapping and be directed at the building area from



where fugitives are most likely to be emitted.

3. Method 9 tests are to be conducted no less than every six months and each time a process change is likely to increase fugitive emissions. A description of any change is to be submitted with the annual compliance certification.

4. Globe is allowed to use Method 22 in place of the semi-annual Method 9 test. If visible emissions are observed greater than 10 percent of the time during the furnace cycle or 60 minutes, whichever is greater, than the facility must conduct a Method 9 test no later than 15 days after the Method 22 test.

5. The annual compliance certification is to be submitted and shall include the results of the initial, semi-annual and follow-up Method 9 tests and the alternate semi-annual Method 22 performance test, if chosen.

6. Method 9 visual emissions test are to be conducted in accordance with Appendix A-4 of 40 CFR Part 60.

Records shall be kept on-site for a period of 5 years following the date of each recorded action and be made readily available to Department representatives on request. Records of all monitoring data shall be kept as follows:

- date, place and time of monitoring event
- person conducting monitoring
- operating conditions during the activity
- method used
- results including the date, time and duration of the period from the time monitoring indicated a problem to the time monitoring indicated proper operation.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: Method 9

Monitoring Frequency: SEMI-ANNUALLY

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).



Condition 34: Compliance Certification
Effective for entire length of Permit

Applicable Federal Requirement: 40CFR 63, Subpart YYYYYY

Item 34.1:

The Compliance Certification activity will be performed for:

Emission Unit: E-AFURN

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 34.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

Globe shall evaluate visible emissions from the the outlet of the control devices associated with the silicon furnaces in accordance with 40 CFR 63.11526(a), 63.11527(a) and 63.11528 (b) as follows:

For each silicon metal furnace identified as furnace No. 9 and furnace No. 11, the Globe shall conduct a visible emissions (VE) evaluation of the fabric filter outlets identified as emission points EP002 and EP003 when the furnaces are operating.

1. For each furnace fabric filter, the facility must conduct an initial Method 22 visible emissions test for at least 60 minutes no later than August 21, 2009. A semi-annual 60 minute Method 22 test is required thereafter.
2. Visible emissions as measured by a Method 22 observation, from the fabric filter outlet shall not exceed 5 percent of accumulated occurrences in a 60-minute observation period. For each fabric filter, an initial Method 22 visible emissions test is required for a minimum a 60 minute period. A semi-annual Method 22 test is required thereafter.
3. The facility shall conduct and record daily visible emissions inspection of the fabric filter outlets when the silicon metal furnaces are operating. If visible emissions are observed, the facility shall conduct a Method 22 test as described in item 2 within 24 hours.
4. The facility has the option to decrease the frequency of observations from daily to weekly if the source collects at least 90 consecutive operating days of data



that demonstrate there was no VE during the period observed.

5. If after the source converts to a weekly observation schedule, any VE is observed, the facility must revert back to daily observations until another 90 consecutive operating days demonstrate no VE during the observed period. Then, the source can convert back to the weekly observation schedule.

6. Globe has the option of installing a bag leak detection system and complying with the requirements for the system as an alternative to daily/weekly visual inspections. Installation of the system can be completed in accordance with the op-flex provisions of 6NYCRR, Part 201-6.5(f).

7. The annual compliance certification is to be submitted and shall include the results of daily or weekly visual monitoring, initial and semi-annual Method 22 tests, and the follow-up Method 22 that is a required if VE_{ζ} s are observed during daily or weekly visual monitoring as described in item 4 above.

8. Method 22 test are to be conducted in accordance with Appendix A-7 of 40 CFR Part 60.

Records shall be kept on-site for a period of 5 years following the date of each recorded action and be made readily available to Department representatives on request. Records shall be kept as follows:

Records of all monitoring data including:

- date, place and time of monitoring event
- person conducting monitoring
- operating conditions during the activity
- method used
- results including the date, time and duration of the period from the time monitoring indicated a problem to the time monitoring indicated proper operation.

Parameter Monitored: VISIBLE EMISSIONS

Upper Permit Limit: 5 percent

Reference Test Method: Method 22

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING



DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
Subsequent reports are due every 6 calendar month(s).

Condition 35: Compliance Certification
Effective for entire length of Permit

Applicable Federal Requirement:6NYCRR 212.10(c)(3)

Item 35.1:

The Compliance Certification activity will be performed for:

Emission Unit: E-AFURN
Process: P02

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

Item 35.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The two electric arc furnaces, each having actual nitrogen oxide emissions of 87.6 pounds per hour and a combined total of 767.3 tons per year are subject to the Reasonably Available Control requirements(RACT) set forth in 6NYCRR, Part 212.10 for major sources of nitrogen oxides. As part of the initial 1999 Title V application Globe submitted as a compliance plan a RACT analysis which evaluated the technical and economic feasibility of available control technologies for electric arc furnaces. The analysis determined that there is no control technology available to comply with the RACT requirements for nitrogen oxides and requested a variance from the RACT control strategy requirements. This Department and the USEPA in the 11/25/98 correspondence from R.Ruvo(EPA) to J. Di Pronio(DEC) concurred with this determination. Therefore, the RACT demonstration was submitted to the USEPA for approval as a revision to the New York State Implementation Plan(SIP). The special conditions to establish RACT are incorporated into this Title V permit as follow:

1.) Nitrogen Oxide emissions from both furnaces are limited to 175.2 pounds per hour and 767.3 tons per year. These emissions correspond to an average raw material input rate of 25,098 pounds per hour as demonstrated by the tracking of raw material inputs over a 24 hour period. The appropriate production recordkeeping will be maintained to demonstrate compliance with these limits and



made available to Department representatives upon request.

2.) Globe is to maintain the refractory on each unit as per the established facility maintenance protocol.

3.) Globe must continue to evaluate control technologies and other compliance strategies and provide annual documentation of such evaluation to this department.

Parameter Monitored: RAW MATERIAL

Upper Permit Limit: 25098 pounds per hour

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

Condition 36: Compliance Certification
Effective for entire length of Permit

Applicable Federal Requirement: 6NYCRR 212.4(c)

Item 36.1:

The Compliance Certification activity will be performed for:

Emission Unit: P-ROFIN

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 36.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The main plenum pressure drop will be monitored and recorded for the crushing and sizing baghouse, emission source S0010 (emission point EP06A), the rail car baghouse, emission source S0014(emission point EP06A) and the loadout/conveyor baghouse, emission source S0012 (emission point EP007).

Pressure drop ranges are used as a diagnostic indicator of a potential problem in the operation of the baghouses and not necessarily a violation of the concentration limit. Values outside the proposed range of 1-10 inches WC will require a visual observation of the baghouse outlets. If visible emissions are observed, Globe will initiate an investigation as to the cause and initiate corrective



action as necessary. Additional maintenance inspections will be performed at weekly and monthly intervals.

These parameters are proposed and may change on start-up of furnace/baghouse operations. On start-up, the actual operating ranges will be established in the record book. Also, if the pressure drop range changes as a result of filter bag change, Globe will note the new range and date of bag replacement, and operate within that range.

Records of minor corrective actions including maintenance, electrical and operational changes will be recorded in baghouse logbooks. All other corrective actions will be filed with the visible emissions observations and maintenance inspection logs.

Records shall be kept on-site for a period of 5 years and made available to Department representatives on request.

Monitoring Frequency: DAILY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
Subsequent reports are due every 6 calendar month(s).

Condition 37: Compliance Certification
Effective for entire length of Permit

Applicable Federal Requirement: 6NYCRR 212.4(c)

Item 37.1:

The Compliance Certification activity will be performed for:

Emission Unit: P-ROFIN

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 37.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

Emissions of solid particulate from emission point EP007, associated with product handling operations, and emission point EP06A, associated with silicon metal sizing operations, shall not exceed 0.05 gr/dscf.

The dust collectors will be inspected on a daily bases for pressure change. Either charts or magnehelic gauges



will be used to conduct the monitoring. Also, additional maintenance inspections are performed at weekly and monthly intervals.

Records of minor corrective actions including maintenance, electrical and operational changes will be recorded in baghouse logbooks. All other corrective actions will be filed with the visible emissions observations and maintenance inspection logs.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.05 grains per dscf

Reference Test Method: Method 5

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

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

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

Condition 38: Compliance Certification
Effective for entire length of Permit

Applicable Federal Requirement: 6NYCRR 212.6(a)

Item 38.1:

The Compliance Certification activity will be performed for:

Emission Unit: P-ROFIN

Item 38.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

No person shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source, except only the emission of uncombined water. Compliance with this requirement shall be determined by the facility owner/operator conducting a daily survey of visible emissions when the process is in operation. If any visible emissions are identified, corrective action is required. The Department reserves the right to perform or require the performance of a Method 9 opacity evaluation

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: EPA Method 9

Monitoring Frequency: DAILY

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

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Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).



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: 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 applicable requirements and are not subject to compliance certification requirements unless otherwise noted or required under 6 NYCRR Part 201.

**Condition 39: Contaminant List
Effective for entire length of Permit**

Applicable State Requirement:ECL 19-0301

Item 39.1:

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

CAS No: 007446-09-5

Name: SULFUR DIOXIDE

CAS No: 0NY075-00-0



Name: PARTICULATES

CAS No: 0NY210-00-0

Name: OXIDES OF NITROGEN

**Condition 40: Unavoidable noncompliance and violations
Effective for entire length of Permit**

Applicable State Requirement: 6NYCRR 201-1.4

Item 40.1:

At the discretion of the commissioner a violation of any applicable emission standard for necessary scheduled equipment maintenance, start-up/shutdown conditions and malfunctions or upsets may be excused if such violations are unavoidable. The following actions and recordkeeping and reporting requirements must be adhered to in such circumstances.

(a) The facility owner and/or operator shall compile and maintain records of all equipment 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 commissioner's representative when requested to do so in writing or when so required by a condition of a permit issued for the corresponding air contamination source except where conditions elsewhere in this permit which contain more stringent reporting and notification provisions for an applicable requirement, in which case they supercede those stated here. Such reports shall describe why the violation was unavoidable and shall include the time, frequency and duration of the maintenance and/or start-up/shutdown activities and the identification of air contaminants, and the estimated emission rates. If a facility owner and/or operator is subject to continuous stack monitoring and quarterly reporting requirements, he need not submit reports for equipment maintenance or start-up/shutdown for the facility to the commissioner's representative.

(b) In the event that emissions of air contaminants in excess of any emission standard in 6 NYCRR Chapter III Subchapter A occur due to a malfunction, the facility owner and/or operator shall report such malfunction by telephone to the commissioner's representative as soon as possible during normal working hours, but in any event not later than two working days after becoming aware that the malfunction occurred. Within 30 days thereafter, when requested in writing by the commissioner's representative, the facility owner and/or operator shall submit a written report to the commissioner's representative describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates. These reporting requirements are superceded by conditions elsewhere in this permit which contain reporting and notification provisions for applicable requirements more stringent than those above.

(c) The Department may also require the owner and/or operator to include in reports described under (a) and (b) above an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions depending on the deviation of the malfunction and the air contaminants emitted.

(d) In the event of maintenance, start-up/shutdown or malfunction conditions which result in emissions exceeding any applicable emission standard, the facility owner and/or operator shall take appropriate action to prevent emissions which will result in contravention of any applicable ambient air quality standard. Reasonably available control



technology, as determined by the commissioner, shall be applied during any maintenance, start-up/shutdown or malfunction condition subject to this paragraph.

(e) In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets.

Condition 41: Air pollution prohibited
Effective for entire length of Permit

Applicable State Requirement:6NYCRR 211.2

Item 41.1:

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.

New York State Department of Environmental Conservation

Permit ID: 9-2911-00078/00009

Facility DEC ID: 9291100078

