



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air Title V Facility
Permit ID: 9-2911-00078/00009
Mod 0 Effective Date: 08/20/2009 Expiration Date: 08/19/2014
Mod 1 Effective Date: 11/26/2010 Expiration Date: 08/19/2014
Mod 2 Effective Date: 08/21/2012 Expiration Date: 08/19/2014
Mod 3 Effective Date: 07/22/2013 Expiration Date: 08/19/2014

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

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

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

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

Description:

Globe Metallurgical is a producer of high purity silicon, an alloy used in the aluminum industry and in the production of silicones. Two semi-enclosed 22 megawatt electric arc furnaces, designated as number 9 and number 11 furnaces are charged with blended raw materials coal, coke, woodchips as carbon sources and gravel to provide quartz (silicon). The raw materials are then reduced to molten silicon metal in a reaction zone and tapped into ladles and molds. After cooling, the metal is broken, crushed and sized. The furnaces combined produce about 80 tons of metal per day.

The facility is a major source of emissions of sulfur dioxide, carbon monoxide, hydrogen chloride and nitrogen oxides and therefore subject to the Title V



permitting requirements of 40 CFR 70 and 6 NYCRR, Part 201-6. The facility suspended operations in September 2003 and re-started October 1, 2009.

This permit modification reflects the addition of a gravity roof ventilator to remove heat and fume from the furnace building. Fugitive emissions from the furnace have been calculated and modeled and found to be less than the National Ambient Air quality annual and 24-hour standards for PM-2.5 and less than the AGC's for silica and coal tar volatiles. This modification will not result in an increase in emissions or trigger additional regulatory requirements.

The permit also reflects the addition of monitoring condition specifying operating requirements for the furnace tap fans.

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.

Nitrogen oxides are emitted at an hourly rate of 87.6 pounds and are subject to the NO_x RACT compliance requirements of 6NYCRR, Part 212.10. A NO_x RACT analysis has been submitted and reviewed by this Department and the USEPA which has determined that there are no feasible control technologies available.

Particulate emissions from the baghouses associated with crushing and grinding and material handling, (emission points EP06A and EP007) are limited to 0.05 gr/dscf.

Sulfur dioxide generated from the coal and petroleum coke or other forms of coke, is used in the furnace charge as a fuel source. These fuel types are 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, coke provides more fixed carbon, one pound of coke is equivalent to 1.5 pounds of coal and generates less NO_x per pound of material produced. Therefore, pursuant to 225-1.5(a) 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 as calculated by the formula described in that



section. Coal and coke will be combined in a ratio of a minimum 4:1 to ensure compliance with the limit. Current coke sulfur content is < 1% S.

The most recent Title V permit modification reflects the installation and operation of a Mobark wood chipper powered by a 1050 horsepower diesel engine and incorporates conditions reflecting the CI ICE requirements of 40 CFR Part 60, Subpart IIII-New Source Performance Standards(NSPS). In addition, since Globe is a major source of hydrogen chloride, a hazardous air pollutant, the engine is also subject to the CI ICE requirements under 40 CFR Part 63 Subpart ZZZZ-National Emissions Standards for Hazardous Air Pollutants. The diesel engine is a non-emergency 2008 model year with an engine displacement less than 30 liters per cylinder. The NSPS regulations specify certification emissions standards for all pollutants: carbon monoxide, Particulates, total hydrocarbons and nitrogen oxides. Sulfur dioxide is reduced through the use of low sulfur fuel.

It has been determined that the facility is a major source of HAP-hydrogen chloride through testing on similar furnaces. Therefore, the facility is no longer subject to the area source MACT for Ferroalloy production Furnaces 40 CFR 63 Subpart YYYYYY (6Y). Because the area source MACT requirements constituted CAM and are no longer in the permit, the Compliance Assurance Monitoring (CAM) requirements will be re-incorporated into the Title V permit.

The HCL is formed from the combustion of coal and wood. Process emissions are evaluated under 6NYCRR, Part 212 and HCL would normally be assigned a "B" environmental rating.

With an emission rate potential < 10 pounds per hour, (Table 2 of Part 212) no control for HCL would be required by Part 212.

The 1-hour impact using SCREEN3 and annual impacts using EPA ISCLT were evaluated for the HCL emissions. Since both furnace baghouses have similar flow rates, height and dimensions, I modeled each individually using 15 pounds per hour (both operating at the same time) and impacts at both Highland and College Avenue. Impacts were compared to the short term SGC and annual AGC and found to be less than the guidance concentrations.

Globe is not subject to the major source NESHAP 40 CFR Part 63 XXX which applies to facilities manufacturing ferromanganese or silicomanganese.



Globe is not subject to the NESHAP GGGGG for remediation sites because the materials to be remediated at the facility are metals and not organic materials.

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 14203-2915

Authorized Signature: _____ Date: ___ / ___ / ____



Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

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

Item B: Permittee's Contractors to Comply with Permit

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

Item C: Permittee Responsible for Obtaining Other Required Permits

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

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

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



LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions

- Facility Inspection by the Department
- Relationship of this Permit to Other Department Orders and Determinations
 - Applications for permit renewals, modifications and transfers
 - Permit modifications, suspensions or revocations by the Department
 - Permit modifications, suspensions or revocations by the Department
 - 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: 6 NYCRR 621.11

Item 3.1:

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item 3.2:

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

Item 3.3:

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted to the Department for approval.



Condition 1-1: Permit modifications, suspensions or revocations by the Department

Applicable State Requirement: 6 NYCRR 621.13

Item 1-1.1:

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.

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 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.

Condition 2-1: Permit modifications, suspensions or revocations by the Department

Applicable State Requirement: 6 NYCRR 621.13

Item 2-1.1:

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 9 HEADQUARTERS

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

New York State Department of Environmental Conservation

Permit ID: 9-2911-00078/00009

Facility DEC ID: 9291100078



Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT

IDENTIFICATION INFORMATION

Permit Issued To: GLOBE METALLURGICAL INC
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

Mod 0 Permit Effective Date: 08/20/2009

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Mod 3 Permit Effective Date: 07/22/2013

Permit Expiration Date: 08/19/2014



LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS

Facility Level

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- 3-1 6 NYCRR 201-6.4 (a) (7): Fees
- 3-2 6 NYCRR 201-6.4 (c): Recordkeeping and Reporting of Compliance Monitoring
- 3-3 6 NYCRR 201-6.4 (c) (2): Records of Monitoring, Sampling, and Measurement
- 3-4 6 NYCRR 201-6.4 (c) (3) (ii): Compliance Certification
- 3-5 6 NYCRR 201-6.4 (e): Compliance Certification
- 7 6 NYCRR 202-2.1: Compliance Certification
- 8 6 NYCRR 202-2.5: Recordkeeping requirements
- 9 6 NYCRR Part 215: Open Fires Prohibited at Industrial and Commercial Sites
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 - 10 6 NYCRR 200.7: Maintenance of Equipment
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 - 11 6 NYCRR 201-1.7: Recycling and Salvage
 - 12 6 NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
 - 3-7 6 NYCRR 201-3.2 (a): Exempt Sources - Proof of Eligibility
 - 13 6 NYCRR 201-3.2 (a): Exempt Sources - Proof of Eligibility
 - 3-8 6 NYCRR 201-3.3 (a): Trivial Sources - Proof of Eligibility
 - 14 6 NYCRR 201-3.3 (a): Trivial Sources - Proof of Eligibility
 - 3-9 6 NYCRR 201-6.4 (a) (4): Requirement to Provide Information
 - 3-10 6 NYCRR 201-6.4 (a) (8): Right to Inspect
 - 3-11 6 NYCRR 201-6.4 (f) (6): Off Permit Changes
 - 1-2 6 NYCRR 202-1.1: Required Emissions Tests
 - 19 6 NYCRR 202-1.1: Required Emissions Tests
 - 21 40 CFR Part 68: Accidental release provisions.
 - 22 40CFR 82, Subpart F: Recycling and Emissions Reduction
 - 23 6 NYCRR Subpart 201-6: Emission Unit Definition
 - 3-12 6 NYCRR 201-6.4 (d) (4): Progress Reports Due Semiannually
 - 3-13 6 NYCRR 225-1.2 (b): Compliance Certification

Emission Unit Level

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

EU=1-RFMON,Proc=VNT

- 3-14 6 NYCRR 212.4 (a): Compliance Certification

EU=1-WDCHP

- 2-5 40CFR 60.4204(b), NSPS Subpart III: Compliance Certification
- 3-15 40CFR 60.4207(b), NSPS Subpart III: Compliance Certification
- 3-16 40CFR 60.4207(b), NSPS Subpart III: Compliance Certification
- 3-17 40CFR 60.4207(b), NSPS Subpart III: Compliance Certification
- 2-9 40CFR 60.4211(a), NSPS Subpart III: Compliance Certification
- 2-10 40CFR 63.6590(a)(2), Subpart ZZZZ: Applicability of new RICE



- greater than 500 HP at a HAP major facility
2-11 40CFR 63.6600(b), Subpart ZZZZ: Compliance Certification
2-12 40CFR 63.6600(d), Subpart ZZZZ: Compliance Certification
2-13 40CFR 63.6600(d), Subpart ZZZZ: Compliance Certification

EU=E-AFURN

- 3-18 6 NYCRR 201-6.4 (f) (1) (i): Compliance Certification
1-5 6 NYCRR 212.3 (a): Compliance Certification

EU=E-AFURN,Proc=P02

- 3-19 6 NYCRR 212.9 (d): Compliance Certification
3-20 6 NYCRR 212.10 (c) (3): Compliance Certification
3-21 6 NYCRR 225-1.4 (a): Compliance Certification
3-22 40 CFR Part 64: Compliance Certification

EU=E-AFURN,Proc=TAP

- 3-23 6 NYCRR 212.5 (a): Compliance Certification

EU=P-ROFIN

- 36 6 NYCRR 212.4 (c): Compliance Certification
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1-7 6 NYCRR 201-1.4: Unavoidable noncompliance and violations
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2-14 6 NYCRR 211.1: Air pollution prohibited
1-8 6 NYCRR 211.2: Air pollution prohibited
41 6 NYCRR 211.2: Air pollution prohibited
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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 - 6 NYCRR 201-1.5

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the facility owner or operator can identify the cause(s) of the emergency;

(2) The equipment at the permitted facility causing the emergency was at the time being properly operated and maintained;

(3) During the period of the emergency the facility owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) The facility owner or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item B: Public Access to Recordkeeping for Title V Facilities - 6 NYCRR 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 6 NYCRR 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 201-6.2 (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 201-6.2 (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 201-6.4 (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 201-6.4 (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 201-6.4 (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 201-6.4 (a) (6)

This permit does not convey any property rights of any sort or any exclusive privilege.



Item I: Severability - 6 NYCRR 201-6.4 (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 201-6.4 (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 201-6.4 (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 between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 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 3-1: Fees
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (7)

Item 3-1.1:

The owner and/or operator of a stationary source shall pay fees to the Department consistent with the fee schedule authorized by ECL 72-0303.

Condition 3-2: Recordkeeping and Reporting of Compliance Monitoring
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 201-6.4 (c)



Item 3-2.1:

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 201-6.2 of Part 201.

**Condition 3-3: Records of Monitoring, Sampling, and Measurement
Effective between the dates of 07/22/2013 and 08/19/2014**

Applicable Federal Requirement: 6 NYCRR 201-6.4 (c) (2)

Item 3-3.1:

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 3-4: Compliance Certification
Effective between the dates of 07/22/2013 and 08/19/2014**

Applicable Federal Requirement: 6 NYCRR 201-6.4 (c) (3) (ii)

Item 3-4.1:

The Compliance Certification activity will be performed for the Facility.

Item 3-4.2:

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 201-6.2(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 201-6.4(e), contained elsewhere in this permit.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2014.
Subsequent reports are due every 6 calendar month(s).



Condition 3-5: Compliance Certification
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement: 6 NYCRR 201-6.4 (e)

Item 3-5.1:

The Compliance Certification activity will be performed for the Facility.

Item 3-5.2:

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.

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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:

NYSDEC Region 9 Headquarters
270 Michigan Avenue
Buffalo, NY 14203-2915

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 between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 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,

New York State Department of Environmental Conservation

Permit ID: 9-2911-00078/00009

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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 between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 202-2.5

Item 8.1:

(a) The following records shall be maintained for at least five years:

- (1) a copy of each emission statement submitted to the department; and
- (2) records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used.

(b) These records shall be made available at the facility to the representatives of the department upon request during normal business hours.

Condition 9: Open Fires Prohibited at Industrial and Commercial Sites
Effective between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement:6 NYCRR Part 215

Item 9.1:

No person shall burn, cause, suffer, allow or permit the burning in an open fire of garbage, refuse, rubbish for salvage, or rubbish generated by industrial or commercial activities.

Condition 1-1: Open Fires - Prohibitions
Effective between the dates of 11/26/2010 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 215.2

Item 1-1.1:

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

Item 1-1.2

Per Section 215.3, burning in an open fire, provided it is not contrary to other law or regulation, will be allowed as follows:

- (a) On-site burning in any town with a total population less than 20,000 of downed limbs and branches (including branches with attached leaves or needles) less than six inches in diameter and eight feet in length between May 15th and the following March 15th. For the purposes of this subdivision, the total population of a town shall include the population of any village or portion thereof located within the town. However, this subdivision shall not be construed to allow burning within any village.
- (b) Barbecue grills, maple sugar arches and similar outdoor cooking devices when actually used for cooking or processing food.
- (c) Small fires used for cooking and camp fires provided that only charcoal or untreated wood is



- used as fuel and the fire is not left unattended until extinguished.
- (d) On-site burning of agricultural wastes as part of a valid agricultural operation on contiguous agricultural lands larger than five acres actively devoted to agricultural or horticultural use, provided such waste is actually grown or generated on those lands and such waste is capable of being fully burned within a 24-hour period.
 - (e) The use of liquid petroleum fueled smudge pots to prevent frost damage to crops.
 - (f) Ceremonial or celebratory bonfires where not otherwise prohibited by law, provided that only untreated wood or other agricultural products are used as fuel and the fire is not left unattended until extinguished.
 - (g) Small fires that are used to dispose of a flag or religious item, and small fires or other smoke producing process where not otherwise prohibited by law that are used in connection with a religious ceremony.
 - (h) Burning on an emergency basis of explosive or other dangerous or contraband materials by police or other public safety organization.
 - (i) Prescribed burns performed according to Part 194 of this Title.
 - (j) Fire training, including firefighting, fire rescue, and fire/arson investigation training, performed under applicable rules and guidelines of the New York State Department of State's Office of Fire Prevention and Control. For fire training performed on acquired structures, the structures must be emptied and stripped of any material that is toxic, hazardous or likely to emit toxic smoke (such as asbestos, asphalt shingles and vinyl siding or other vinyl products) prior to burning and must be at least 300 feet from other occupied structures. No more than one structure per lot or within a 300 foot radius (whichever is bigger) may be burned in a training exercise.
 - (k) Individual open fires as approved by the Director of the Division of Air Resources as may be required in response to an outbreak of a plant or animal disease upon request by the commissioner of the Department of Agriculture and Markets, or for the destruction of invasive plant and insect species.
 - (l) Individual open fires that are otherwise authorized under the environmental conservation law, or by rule or regulation of the Department.

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS
SUBJECT TO ANNUAL CERTIFICATIONS ONLY IF APPLICABLE**

The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements only if effectuated during the reporting period.

[NOTE: The corresponding annual compliance certification for those conditions not effectuated during the reporting period shall be specified as "not applicable".]

**Condition 10: Maintenance of Equipment
Effective between the dates of 08/20/2009 and 08/19/2014**

Applicable Federal Requirement: 6 NYCRR 200.7

Item 10.1:

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



Condition 3-6: Recycling and Salvage
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 201-1.7

Item 3-6.1:

Where practical, the owner or operator of an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of the ECL.

Condition 11: Recycling and Salvage
Effective between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 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 between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 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 3-7: Exempt Sources - Proof of Eligibility
Effective between the dates of 07/22/2013 and 08/19/2014

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

Item 3-7.1:

The owner or operator of an emission source or activity that is listed as being exempt may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all records necessary for demonstrating compliance with this Subpart on-site for a period of five years, and make them available to representatives of the department upon request.

Condition 13: Exempt Sources - Proof of Eligibility
Effective between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 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 3-8: Trivial Sources - Proof of Eligibility
Effective between the dates of 07/22/2013 and 08/19/2014

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

Item 3-8.1:

The owner or operator of an emission source or activity that is listed as being trivial in this Section may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request.

Condition 14: Trivial Sources - Proof of Eligibility
Effective between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 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 3-9: Requirement to Provide Information
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (4)

Item 3-9.1:

The owner and/or operator shall furnish to the department, within a reasonable time, any information that the department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the administrator along with a claim of confidentiality, if the administrator initiated the request for information or otherwise has need of it.

Condition 3-10: Right to Inspect
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (8)



Item 3-10.1:

The department or an authorized representative shall be allowed upon presentation of credentials and other documents as may be required by law to:

- (i) enter upon the permittee's premises where a facility subject to the permitting requirements of this Subpart is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- (ii) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- (iii) inspect at reasonable times any emission sources, equipment (including monitoring and air pollution control equipment), practices, and operations regulated or required under the permit; and
- (iv) sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

Condition 3-11: Off Permit Changes

Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 201-6.4 (f) (6)

Item 3-11.1:

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 201-6.4 shall not apply to any change made pursuant to this paragraph.

Condition 1-2: Required Emissions Tests

Effective between the dates of 11/26/2010 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 202-1.1

Item 1-2.1:

New York State Department of Environmental Conservation

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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.

Condition 19: Required Emissions Tests
Effective between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 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 21: Accidental release provisions.
Effective between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement:40 CFR Part 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 between the dates of 08/20/2009 and 08/19/2014

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 between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 23.1(From Mod 3):

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

Emission Unit: 1-RFMON

Emission Unit Description:

This emission unit represents the proposed installation of a gravity roof ventilator system on the north side of the furnace building roof.

Building(s): 00FURNBLDG

Item 23.2(From Mod 3):

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

Emission Unit: 1-WDCHP

Emission Unit Description:

Morbark model 30 Wood chip arrestor to chip whole logs into 3" x 2" x 1" chips. The wood chipper is powered by a 1050 HP 783 kw Caterpillar diesel engine.

Building(s): OUTSIDE

Item 23.3(From Mod 3):

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 or ferrosilicon. The furnaces are each rated at 22 megawatts per hour of input. The processes which comprise this emission unit are raw material handling, ferrosilicon or silicon metal melting and tapping/pouring of molten metal. Each furnace is equipped with a baghouse to control particulate emissions. A main furnace 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 23.4(From Mod 3):

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 23.5(From Mod 0):

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 3-12: Progress Reports Due Semiannually

Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 201-6.4 (d) (4)

Item 3-12.1:

Progress reports consistent with an applicable schedule of compliance are to be submitted at least semiannually, or at a more frequent period if specified in the applicable requirement or by the department. Such progress reports shall contain the following:

(i) dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

(ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

Condition 3-13: Compliance Certification

Effective between the dates of 07/22/2013 and 08/19/2014

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

Item 3-13.1:

The Compliance Certification activity will be performed for the Facility.

Item 3-13.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

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Permit ID: 9-2911-00078/00009

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Monitoring Description:

Owners and/or operators of any stationary combustion installation that fires solid fuel are limited to the firing of solid fuel with a sulfur content of 1.7 lbs/mmBtu maximum and 1.4 lbs/mmBtu*** average through June 30, 2014.

*** 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.

Data collected pursuant to this Subpart must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period. All other facility owners or distributors must submit these records and summaries upon request of the Department.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: COAL

Parameter Monitored: SULFUR CONTENT

Upper Permit Limit: 1.7 pounds per million Btus

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**** Emission Unit Level ****

Condition 28: Emission Point Definition By Emission Unit Effective between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 28.1(From Mod 3):

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

Emission Unit: 1-RFMON

Emission Point: 00008

Height (ft.): 95

Length (in.): 192

Width (in.): 15

NYTMN (km.): 4782.4

NYTME (km.): 171.2

Building: 00FURNBLDG

Item 28.2(From Mod 3):

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

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Facility DEC ID: 9291100078



Emission Unit: 1-WDCHP

Emission Point: EP005

Height (ft.): 15

Diameter (in.): 3

NYTMN (km.): 4782.4

NYTME (km.): 171.2

Building: OUTSIDE

Item 28.3(From Mod 3):

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

NYTMN (km.): 4782.4

NYTME (km.): 171.2

Building: 00FURNBLDG

Emission Point: EP003

Height (ft.): 92

Length (in.): 960

Width (in.): 168

NYTMN (km.): 4782.4

NYTME (km.): 171.2

Building: 00FURNBLDG

Item 28.4(From Mod 3):

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

NYTMN (km.): 4782.4

NYTME (km.): 171.2

Building: 00FURNBLDG

Emission Point: EP06A

Height (ft.): 10

Diameter (in.): 48

NYTMN (km.): 4782.4

NYTME (km.): 171.2

Building: 00FURNBLDG

Condition 29: Process Definition By Emission Unit

Effective between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 29.1(From Mod 3):

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

Emission Unit: 1-RFMON

Process: VNT

Source Classification Code: 3-03-007-02

Process Description:

Labyrinth gravity ventilators used to ventilate furnace building of heat and fume. There are 15 motorized damper panels which can be opened and closed as needed. These will provide 29.5 building air exchanges per hour.

Emission Source/Control: 0ROOF - Process

Item 29.2(From Mod 3):



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

Emission Unit: 1-WDCHP
Process: 0WC Source Classification Code: 2-02-001-02
Process Description:
Logs are manually fed into chipper and chips are sent to raw material storage piles. Wood chipper is powered by a 1050 HP 783 kw Catepillar diesel engine.

Emission Source/Control: 1DSEL - Control
Control Type: CATALYTIC OXIDATION

Emission Source/Control: WDCHP - Process

Item 29.3(From Mod 3):

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 29.4(From Mod 3):

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 - Silicon or ferrosilicon 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. In the production of ferrosilicon, iron is added to the raw materials. 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 29.5(From Mod 3):

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

Emission Unit: E-AFURN

Process: TAP

Source Classification Code: 3-03-007-02

Process Description:

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 29.6(From Mod 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:

Silicon Metal Sizing - Sizing operations begin with transport of silicon metal lump from storage or directly to the jaw crusher. From the jaw crusher, product is conveyed to a shaker/screen and transported to sizing or to the cone crusher, depending on size. From the cone crusher, the product is transported to a shaker/screen via a covered conveyor and then to sizing. Emissions from this operation are controlled by two baghouses which vent to emission point EP06A.

Emission Source/Control: S0010 - Control
Control Type: FABRIC FILTER

Emission Source/Control: S0014 - Control
Control Type: FABRIC FILTER

Emission Source/Control: S0009 - Process

Item 29.7(From Mod 3):

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

Emission Unit: P-ROFIN
Process: P04 Source Classification Code: 3-99-999-94
Process Description:

Product Handling - From sizing, product is loaded to boxes, super sacks, or railcars. Hopper and Loading Conveyor involves transfer of sized silicon metal via front end loader to a bin then to a hopper for loadout to railcar. The operation is located indoors next to Sizing Plant No. 3. Conveyors, hopper and loadout point are controlled via cartridge filter venting to emission point EP007.

Emission Source/Control: S0012 - Control



Control Type: FABRIC FILTER

Emission Source/Control: S0011 - Process

Item 29.8(From Mod 0):

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

Emission Unit: R-DWYPK

Process: P05

Source Classification Code: 3-99-999-94

Process Description:

Roadways & Parking - Transportation on roadways and parking areas cause fugitive emissions.

Emission Source/Control: S0013 - Process

Condition 3-14: Compliance Certification
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 212.4 (a)

Item 3-14.1:

The Compliance Certification activity will be performed for:

Emission Unit: 1-RFMON

Process: VNT

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 3-14.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The roof ventilator will vent heat and fume from the main furnace building. There will be no increase in emissions from the furnace operations. Total fugitive PM emissions based on emission factors developed from 2010 stack test data on furnace No. 11 have been calculated to be 141 tpy or 32 #/hour. It will be assumed that this entire amount is PM 2.5 or less.

Emissions were modeled from the roof vent using AERSCREEN and the worst case emissions based on indoor air quality measurements in the furnace building. Respirable dust ranged from 0.12 mg/m³ to 18 mg/m³ for an 8-hour TWA average. (0.307 #/hr to 46 #/hr). Therefore, PM-2.5 was modeled at 46 pounds per hour resulting in a maximum annual impact of 1.57 ug/m³ and compared to the annual Ambient Air Quality Standards (AAQS) for PM-2.5 of 15 ug/m³.



Respirable silica personal monitoring ranged from 0.012 mg/m³ to 0.034 mg/m³. (0.031 #/hr to 0.087 #/hr) Modeling results indicated maximum silica annual impact to be 2.96 x 10⁻³ µg/m³ (at 0.087 #/hr) as compared to the AGC of 0.06 µg/m³.

Coal tar pitch volatiles sample results range from < 0.079 to 0.13 mg/m³ or a maximum 0.332 #/hr and a potential to emit of 1.5 tpy. The impact was 0.0113 µg/m³ compared to the AGC of 0.048 µg/m³.

All modeling results were within the guidance concentrations.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2014.

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

Condition 2-5: Compliance Certification
Effective between the dates of 08/21/2012 and 08/19/2014

Applicable Federal Requirement:40CFR 60.4204(b), NSPS Subpart IIII

Item 2-5.1:

The Compliance Certification activity will be performed for:

Emission Unit: 1-WDCHP

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 2-5.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in Sec. 60.4201(d) for their 2007 model year and later stationary CI ICE, as applicable.

60.4201(d): Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the certification emission standards for new marine CI engines in 40 CFR 94.8, as

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applicable, for all pollutants, for the same displacement and maximum engine power.

CFR 94.8 Emissions standards 25<displacement<30 All power levels:

THC+NOx: 11.0 G/KW-HR
CO: 5.0 G/KW-HR
PM: 0.50 G/KW-HR

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 5.0 grams per kilowatt hour

Reference Test Method: None

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

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

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2013.

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

Condition 3-15: Compliance Certification
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement:40CFR 60.4207(b), NSPS Subpart III

Item 3-15.1:

The Compliance Certification activity will be performed for:

Emission Unit: 1-WDCHP

Item 3-15.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The owner or operator of a stationary compression ignition internal combustion engine with a displacement of less than 30 liters per cylinder and which is subject to the requirements of subpart III of 40 CFR Part 60 may not fire diesel fuel above a maximum aromatic content of 35 percent per gallon as referenced in 40 CFR Part 80.510(b) except that any diesel fuel purchased or otherwise obtained prior to October 1, 2010 may be used until depleted. Compliance shall be demonstrated by either sampling each delivery and conducting an appropriate analysis or by obtaining a certificate of analysis showing the aromatic content for each shipment of diesel fuel provided by the fuel supplier. In either case, the owner or operator must verify that any required fuel analysis

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has been conducted using methodology acceptable to the Department. Records of all certificates of analysis provided by the fuel supplier and on-site fuel sampling results must be maintained on site for a minimum of five years.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: DIESEL OIL
Parameter Monitored: AROMATIC CONTENT
Upper Permit Limit: 35 percent
Monitoring Frequency: PER DELIVERY
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 3-16: Compliance Certification
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement:40CFR 60.4207(b), NSPS Subpart IIII

Item 3-16.1:

The Compliance Certification activity will be performed for:

Emission Unit: 1-WDCHP

Item 3-16.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The owner or operator of a stationary compression ignition internal combustion engine displacing less than 30 liters per cylinder and which is subject to the requirements of subpart IIII of 40 CFR Part 60 may not fire diesel fuel below a minimum cetane index of 40 as referenced in 40 CFR Part 80.510(b) except that any diesel fuel purchased or otherwise obtained prior to October 1, 2010 may be used until depleted. Compliance shall be demonstrated by either sampling each delivery and conducting an appropriate analysis or by obtaining a certificate of analysis showing the cetane index for each shipment of diesel fuel provided by the fuel supplier. In either case, the owner or operator must verify that any required fuel analysis has been conducted using methodology acceptable to the Department. Records of all certificates of analysis provided by the fuel supplier and on-site fuel sampling results must be maintained on site for a minimum of five years.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: DIESEL OIL

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Parameter Monitored: CETANE INDEX
Lower Permit Limit: 40 ratio
Monitoring Frequency: PER DELIVERY
Averaging Method: MINIMUM - NOT TO FALL BELOW STATED
VALUE AT ANY TIME
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2014.
Subsequent reports are due every 6 calendar month(s).

Condition 3-17: Compliance Certification
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement: 40CFR 60.4207(b), NSPS Subpart III

Item 3-17.1:
The Compliance Certification activity will be performed for:

Emission Unit: 1-WDCHP

Item 3-17.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

The owner or operator of a stationary compression ignition internal combustion engine displacing less than 30 liters per cylinder and which is subject to the requirements of subpart III of 40 CFR Part 60 may not fire any diesel fuel which exceeds a sulfur content of 15 ppm as per the non-road diesel fuel sulfur content standard set forth in 40 CFR Part 80.510(b) except that any diesel fuel purchased or otherwise obtained prior to October 1, 2010 may be used until depleted. Compliance shall be demonstrated by either sampling each delivery and conducting an appropriate analysis or by obtaining a certificate of analysis showing the sulfur content or range of sulfur content for each shipment of non-road diesel fuel provided by the fuel supplier. In either case, the owner or operator must verify that any required fuel analysis has been conducted using methodology acceptable to the Department. Records of all certificates of analysis provided by the fuel supplier and on-site fuel sampling results must be maintained on site for a minimum of five years.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: DIESEL OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 15 parts per million by weight
Monitoring Frequency: PER DELIVERY

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Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY
TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2014.

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

Condition 2-9: Compliance Certification
Effective between the dates of 08/21/2012 and 08/19/2014

Applicable Federal Requirement:40CFR 60.4211(a), NSPS Subpart IIII

Item 2-9.1:

The Compliance Certification activity will be performed for:

Emission Unit: 1-WDCHP

Item 2-9.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of a stationary CI internal combustion engine must comply with the emission standards specified in 40 CFR 60 Subpart IIII and must do all of the following:

- (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
- (2) Change only those emission-related settings that are permitted by the manufacturer; and
- (3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to the facility

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2013.

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

**Condition 2-10: Applicability of new RICE greater than 500 HP at a HAP
major facility**

Effective between the dates of 08/21/2012 and 08/19/2014

Applicable Federal Requirement:40CFR 63.6590(a)(2), Subpart ZZZZ

Item 2-10.1:

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This Condition applies to Emission Unit: 1-WDCHP

Item 2-10.2:

An affected source is any new stationary reciprocating internal combustion engine (RICE) with a site-rating of more than 500 brake horsepower located at a major source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

A stationary RICE is new if construction or reconstruction commenced on or after December 19, 2002.

Condition 2-11: Compliance Certification
Effective between the dates of 08/21/2012 and 08/19/2014

Applicable Federal Requirement: 40CFR 63.6600(b), Subpart ZZZZ

Item 2-11.1:

The Compliance Certification activity will be performed for:

Emission Unit: 1-WDCHP

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

Item 2-11.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The owner or operator of a new or reconstructed compression ignition (CI) stationary RICE with a site rating of more than 500 brake horsepower located at a major source of HAP emissions must either limit the concentration of formaldehyde or reduce CO emissions.

Emissions of CO must be reduced by 70% or more based on the average of three 1-hour runs.

The facility must also meet and maintain the applicable operating limits listed in table 2b of subpart ZZZZ.

Initial compliance will be demonstrated according to the provisions in 40 CFR 63.6630.

If the facility does not use a CO CEMS, the RICE will be required to conduct subsequent performance tests as specified in 40 CFR 63.6615, which requires performance tests to be conducted according to the provisions in 40 CFR 63.6620 semiannually. After the facility has demonstrated compliance for two consecutive tests, the

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facility may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO percent reduction limit, or if the facility deviates from any operating limits, the facility must resume semiannual performance tests.

Continuous compliance will then be demonstrated according to 40 CFR 63.6640. The facility must keep records according to the provisions in 40 CFR 63.6655 and submit the notifications and reports listed in 40 CFR 63.6645 and 63.6650.

Parameter Monitored: CARBON MONOXIDE
Lower Permit Limit: 70 percent reduction by weight
Reference Test Method: see table 4.1 of subpart ZZZZ
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2013.
Subsequent reports are due every 6 calendar month(s).

Condition 2-12: Compliance Certification
Effective between the dates of 08/21/2012 and 08/19/2014

Applicable Federal Requirement: 40CFR 63.6600(d), Subpart ZZZZ

Item 2-12.1:
The Compliance Certification activity will be performed for:

Emission Unit: 1-WDCHP

Regulated Contaminant(s):
CAS No: 000630-08-0 CARBON MONOXIDE

Item 2-12.2:
Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The owner or operator of an existing non-emergency stationary CI RICE with a site rating of more than 500 horsepower located at a major source of HAP emissions using an oxidation catalyst to meet the emission limits listed in table 2c of subpart ZZZZ must maintain the pressure drop and temperature across the catalyst, as listed in table 2b of subpart ZZZZ.



The pressure drop across the catalyst must not change by more than two inches of water at 100% load plus or minus 10% from the pressure drop across the catalyst that was measured during the initial performance test that is required in 40 CFR 63.6630.

Initial compliance must be demonstrated according to the provisions listed in 40 CFR 63.6630. Continuous compliance will then be demonstrated according to 40 CFR 63.6640. The facility must keep records according to the provisions in 40 CFR 63.6655 and submit the notifications and reports listed in 40 CFR 63.6645 and 63.6650.

Parameter Monitored: PRESSURE CHANGE

Upper Permit Limit: 2 inches of water

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.

The initial report is due 1/30/2013.

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

Condition 2-13: Compliance Certification
Effective between the dates of 08/21/2012 and 08/19/2014

Applicable Federal Requirement:40CFR 63.6600(d), Subpart ZZZZ

Item 2-13.1:

The Compliance Certification activity will be performed for:

Emission Unit: 1-WDCHP

Item 2-13.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The owner or operator of an existing non-emergency stationary CI RICE with a site rating of more than 500 horsepower located at a major source of HAP emissions using an oxidation catalyst to meet the emission limits listed in table 2c of subpart ZZZZ must maintain the pressure drop and temperature across the catalyst.

The temperature of the stationary RICE exhaust must be maintained to keep the catalyst inlet temperature greater than or equal to 450 degrees F and less than or equal to 1350 degrees F.

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Initial compliance must be demonstrated according to the provisions listed in 40 CFR 63.6630. Continuous compliance will then be demonstrated according to 40 CFR 63.6640. The facility must keep records according to the provisions in 40 CFR 63.6655 and submit the notifications and reports listed in 40 CFR 63.6645 and 63.6650.

Parameter Monitored: TEMPERATURE

Lower Permit Limit: 450 degrees Fahrenheit

Upper Permit Limit: 1350 degrees Fahrenheit

Monitoring Frequency: CONTINUOUS

Averaging Method: RANGE - NOT TO FALL OUTSIDE OF STATED RANGE AT ANY TIME

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2013.

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

Condition 3-18: Compliance Certification
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement: 6 NYCRR 201-6.4 (f) (1) (i)

Item 3-18.1:

The Compliance Certification activity will be performed for:

Emission Unit: E-AFURN

Item 3-18.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Globe Metallurgical, dependent on market conditions, proposes the flexibility to produce 75% and 50% ferrosilicon along with the potential conversion to self baking electrodes in the No. 9 and No. 11 furnaces. These operations may be conducted under the alternate operating scenarios provisions in 6NYCRR, Part 201-6.4(f)(1) without requiring a permit revision provided that Globe complies with the monitoring conditions currently in place for the production of silicon metal in these furnaces.

Globe currently is permitted to produce silicon metal and has produced ferrosilicon in the past at this facility. Actual and potential emissions based on USEPA emissions factors during the production of ferrosilicon are less than emissions from the production of silicon metal. The conversion would reduce emissions of particulate matter(PM), carbon monoxide(CO), sulfur dioxide(SO₂) and nitrogen oxides(NO_x).



The physical changes to the furnaces would include the addition of paste heaters for the self baking electrodes. The furnaces will be subject to the same conditions and operational limits as currently written for the production of silicon metal to reflect compliance with the Compliance Assurance Monitoring (CAM) requirements of 40 CFR Part 64; the opacity requirements of 6NYCRR, Part 212.6(a); process weight permissible particulate emissions limit of 6NYCRR, Part 212.3(a); the sulfur-in-fuel limitations of 6NYCRR, Part 225-1.5(b); and the NOx RACT limits of 6NYCRR, Part 212.10(c)(3).

Globe shall notify this Department of any proposed change in production and fulfill the recordkeeping, maintenance and operational obligations within the permit whether ferrosilicon or silicon metal is produced.

The results of furnace stack tests requested by the USEPA in support of the FerroAlloy MACT will be used to develop emissions factors for PAH emissions from the furnace and self-baking electrodes.

The Department may require a permit modification in order to impose new applicable requirements if implemented.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2014.

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

Condition 1-5: Compliance Certification
Effective between the dates of 11/26/2010 and 08/19/2014

Applicable Federal Requirement: 6 NYCRR 212.3 (a)

Item 1-5.1:

The Compliance Certification activity will be performed for:

Emission Unit: E-AFURN

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 1-5.2:

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 operational parameters and their target ranges have been established to facilitate the proper operation of the baghouses. These parameters are to be used as diagnostic indicators of a potential problem in the operation of the baghouses. Values outside these parameters 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.

#9 Furnace Baghouse, Emission Source S0006

Fan Amperage Target Range: 100-155

Main Plenum Pressure Target Range: 0-15 Inches Water Column

Main Plenum Temperature: < 500 degrees F

#11 Furnace Baghouse, Emission Source S0007

Fan Amperage Target Range: 80-183

Main Plenum Pressure Target Range: 0-15 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. 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.

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
Reference Test Method: Method 5
Monitoring Frequency: HOURLY
Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -
SEE MONITORING DESCRIPTION
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2011.
Subsequent reports are due every 6 calendar month(s).

Condition 3-19: Compliance Certification
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 212.9 (d)

Item 3-19.1:
The Compliance Certification activity will be performed for:

Emission Unit: E-AFURN
Process: P02

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

Item 3-19.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

The solid particle emission rate shall be limited to the permissible rate determined by the following equation:

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For sources up to 100,000 lb/hr process weight: $E = 0.024 \times P^{(0.67)}$

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), the actual emission rate of particulates, and the calculated permissible emission rates based on the equation above.

Where air contaminants from two or more devices or contrivances are emitted to the outdoor atmosphere through a single emission point, the permissible emission rate or degree of air cleaning required is determined by using the sum of the process weights or emission rate potentials for all such devices or contrivances.

Monitoring Frequency: DAILY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2014.

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

Condition 3-20: Compliance Certification

Effective between the dates of 07/22/2013 and 08/19/2014

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

Item 3-20.1:

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 3-20.2:

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 submit a process specific RACT demonstration for approval with each renewal of the Title V permit.

Parameter Monitored: RAW MATERIAL

Upper Permit Limit: 25098 pounds per hour

Monitoring Frequency: UPON PERMIT RENEWAL

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 3-21: Compliance Certification
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 225-1.4 (a)

Item 3-21.1:

The Compliance Certification activity will be performed for:

Emission Unit: E-AFURN

Process: P02



Regulated Contaminant(s):
CAS No: 007446-09-5 SULFUR DIOXIDE

Item 3-21.2:

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 (b) through June 30, 2014 and (c) on or after July 1, 2014; for solid fuels, may be used as follows:

Globe is required to demonstrate that when using coke with 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 as calculated by the following formula:

$S = (1.1AM + 2BT)/(M + T)$ where;

S = Allowable sulfur dioxide emission (in pounds per million Btu)

A = Sulfur in oil allowed by Section 225-1.2 of this Subpart (in percent by weight)

B = Average sulfur in solid fuel allowed by Section 225-1.2 of this Subpart (in pounds of sulfur per million Btu gross heat content)

M = Percent of total heat input from liquid fuel

T = Percent of total heat input from solid fuel (including coal, coke, wood, wood waste, and refuse-derived fuel)

Compliance will be based on the total heat input from all fuels fired.

Averages are computed 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 and coal received.
2. The sulfur and Btu content of each shipment of coke and coal received.
3. The total amount of coal and coke charged per batch for each furnace.

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4. Sampling, compositing and analysis of fuel samples must be done in accordance with methods acceptable to the Department.

5. Records of fuel analyses (including sulfur content, ash content, and heating value of coal and coke) shall be kept on-site for a period of 5 years in a format acceptable to the Department. A summary of the fuel analyses' is to be submitted to this Department on a semi-annual basis. This report shall detail the average sulfur calculated for any consecutive three month period within the reporting period.

Globe shall submit a written report of any exceedance of the equivalent emission rate within 30 days after the end of any calendar quarter in which an exceedance occurs.

Parameter Monitored: SULFUR

Upper Permit Limit: 1.7 pounds per million Btus

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.

The initial report is due 1/30/2014.

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

Condition 3-22: Compliance Certification

Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement:40 CFR Part 64

Item 3-22.1:

The Compliance Certification activity will be performed for:

Emission Unit: E-AFURN

Process: P02

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 3-22.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The provisions of the Compliance Assurance Monitoring (CAM) requirements as applicable to this facility are to be addressed as follows:

Emission point EP0002, located in emission unit E-AFURN,



process P02, is the exhaust point for the furnace No. 9 baghouse collector. Emission point EP0003, located in emission unit E-AFURN, process P02, is the exhaust point for the furnace No. 11 baghouse collector. The main furnace hoods located at the top of each submerged arc semi-enclosed electric furnace direct fume to their respective baghouse. Potential pre-control emissions of particulates from each emission point exceed the major source threshold of 100 tons per year and therefore subject to the Compliance Assurance Monitoring provisions of 40 CFR Part 64.

Globe has submitted a plan for monitoring to demonstrate that the baghouses are operated and maintained so that they continue to achieve the level of control required by the applicable requirements. The emissions from the furnaces are subject to the process weight limitations set forth in 6NYCRR, Part 212.9 (d) Table 4 and the visible emissions limitations of 6NYCRR, 212.6.

Indicators & Monitoring Frequency:

Visible emission (VE) has been selected as the performance indicator because it is indicative of good operation and maintenance of the baghouse. When the baghouse is operating properly, there will not be any visible emissions from the emission point. Any increase in visible emissions indicates reduced performance of the particulate control device. Normal furnace smelting operations do not produce gas flow or other conditions that adversely affect the baghouse efficiency, so no process operational parameters will be monitored.

Visible emissions from the baghouse exhaust are to be monitored three times daily during a facility survey.

In addition to multiple daily visible emission observations; daily baghouse inspections, maintenance, and recordkeeping will be performed according to the plans and procedures attached to the Title V permit.

Measurement Approach:

Visible emissions from each baghouse exhaust will be monitored daily using procedures similar to EPA Reference Method 22. VE's will be performed three times per day when at least one furnace is operating and hot metal tapping is occurring. At least one 6-minute observation will be performed daily per baghouse and recorded in a log book. Observations will be done during daylight hours unless prohibited by inclement weather; e.g., rain, snow,



fog, etc.

Indicator Range:

A deviation is defined as the presence of visible emissions. When a deviation occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All deviations will be documented and reported in accordance with the permit requirements.

An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions.

Performance Criteria:

Opacity observations are made at the emission point during source operation. Visible emissions will result in the implementation of inspection and maintenance procedures.

QA/QC:

Measurements will be made at the baghouse exhaust. The observer will be familiar with normal furnace operations and EPA Reference Methods 9 and 22.

Deviation Response:

Upon noting visible emissions, the observer will immediately notify maintenance to inspect the baghouse, and operations to reduce furnace operations as feasible. Maintenance personnel will inspect the baghouse within 4 hours of receiving notification and make needed repairs as soon as practicable. Operations will return to normal upon completed corrective action.

QIP Threshold:

The selected Quality Improvement Plan (QIP) threshold for observed visible emissions from each baghouse is 27 excursions in a 6-month reporting period. This level represents approximately 5 percent of the total number of daily visible emissions observations when the furnaces are operating in full production. If the QIP threshold is exceeded in a semi-annual reporting period, a QIP will be developed and submitted to the Department.

Parameter Monitored: VISIBLE EMISSIONS
Upper Permit Limit: 1 presence of cond: yes=1; no=0

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Reference Test Method: Method 9/Method 22

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2014.

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

Condition 3-23: Compliance Certification
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable Federal Requirement:6 NYCRR 212.5 (a)

Item 3-23.1:

The Compliance Certification activity will be performed for:

Emission Unit: E-AFURN

Process: TAP

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 3-23.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

During tapping of each furnace, the power to the variable speed tap fan will operate at the maximum frequency of 50 hertz.

The tap fan speeds and amperage are to be recorded prior to and after each tapping cycle.

Records are to be kept of the fan speed, amperage, and all fan maintenance and fan replacement including the length of the outage to conduct fan repairs. During periods of tap fan outage tapping is not to occur. Records are to be maintained either electronically or in a bound book for a period of five years and made accessible to Department representatives on request.

Parameter Monitored: POWER

Lower Permit Limit: 50 Hertz

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE - SEE MONITORING DESCRIPTION



Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2014.
Subsequent reports are due every 6 calendar month(s).

Condition 36: Compliance Certification
Effective between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement: 6 NYCRR 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

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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.
The initial report is due 1/30/2010.
Subsequent reports are due every 6 calendar month(s).

Condition 37: Compliance Certification
Effective between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement: 6 NYCRR 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

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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.

The initial report is due 1/30/2010.

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

Condition 38: Compliance Certification
Effective between the dates of 08/20/2009 and 08/19/2014

Applicable Federal Requirement: 6 NYCRR 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)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2010.

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 between the dates of 08/20/2009 and 08/19/2014

Applicable State Requirement:ECL 19-0301

Item 39.1:

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

CAS No: 000630-08-0
Name: CARBON MONOXIDE



CAS No: 007446-09-5
Name: SULFUR DIOXIDE

CAS No: 0NY075-00-0
Name: PARTICULATES

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN

Condition 3-24: Malfunctions and start-up/shutdown activities
Effective between the dates of 07/22/2013 and 08/19/2014

Applicable State Requirement:6 NYCRR 201-1.4

Item 3-24.1:

- (a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.
- (b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.
- (c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.
- (d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.
- (e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

Condition 1-7: Unavoidable noncompliance and violations



Effective between the dates of 11/26/2010 and 08/19/2014

Applicable State Requirement:6 NYCRR 201-1.4

Item 1-7.1:

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 40: Unavoidable noncompliance and violations
Effective between the dates of 08/20/2009 and 08/19/2014

Applicable State Requirement:6 NYCRR 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 2-14: Air pollution prohibited
Effective between the dates of 08/21/2012 and 08/19/2014

Applicable State Requirement:6 NYCRR 211.1

Item 2-14.1:

No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.

Condition 1-8: Air pollution prohibited
Effective between the dates of 11/26/2010 and 08/19/2014

Applicable State Requirement:6 NYCRR 211.2

Item 1-8.1:

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 41: Air pollution prohibited
Effective between the dates of 08/20/2009 and 08/19/2014

Applicable State Requirement:6 NYCRR 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.

Condition 2-15: Visible Emissions Limited
Effective between the dates of 08/21/2012 and 08/19/2014

Applicable State Requirement:6 NYCRR 211.2

Item 2-15.1:

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.

