

New York State Department of Environmental Conservation
Facility DEC ID: 9293000032



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air Title V Facility
Permit ID: 9-2930-00032/00263
Mod 0 Effective Date: 05/07/2004 Expiration Date: 05/07/2009
Mod 1 Effective Date: 03/15/2006 Expiration Date: 05/07/2009

Permit Issued To: FERRO CORPORATION
1000 LAKESIDE AVE
PO BOX 147000
CLEVELAND, OH 44114-7000

Facility: FERRO ELECTRONIC MATERIAL SYSTEMS
4511 HYDE PARK BLVD
NIAGARA FALLS, NY 14305-0067

Contact: RUSSELL H STEIGER
4511 HYDE PARK BLVD
PO BOX 67
NIAGARA FALLS, NY 14305-0067
(716) 278-9423

Description:

This permit represents a minor modification to include the addition of a dust collector in building 115 identified in emission unit 00002 as emission point 000217 to further control furnace room exhausts during upsets and the removal of emission unit 00007 whose operations have been discontinued.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

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

Authorized Signature: _____ Date: ___ / ___ / ____



Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the 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 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 and Modifications

Permit Modifications, Suspensions and Revocations by the Department

Facility Level

Submission of Applications 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 and Modifications
Applicable State Requirement: 6NYCRR 621.13

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:

New York State Department of Environmental Conservation
Facility DEC ID: 9293000032



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

Condition 4: Permit Modifications, Suspensions and Revocations by the Department
Applicable State Requirement: 6NYCRR 621.14

Item 4.1:

The Department reserves the right to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

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

Condition 5: Submission of Applications for Permit Modification or Renewal -REGION 9 HEADQUARTERS
Applicable State Requirement: 6NYCRR 621.5(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 14203-2999
(716) 851-7165



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT

IDENTIFICATION INFORMATION

Permit Issued To: FERRO CORPORATION
1000 LAKESIDE AVE
PO BOX 147000
CLEVELAND, OH 44114-7000

Facility: FERRO ELECTRONIC MATERIAL SYSTEMS
4511 HYDE PARK BLVD
NIAGARA FALLS, NY 14305-0067

Authorized Activity By Standard Industrial Classification Code:
3295 - MINERALS, GROUND OR TREATED

Mod 0 Permit Effective Date: 05/07/2004

Permit Expiration Date: 05/07/2009

Mod 1 Permit Effective Date: 03/15/2006

Permit Expiration Date: 05/07/2009



LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS

Facility Level

- 1-1 6NYCRR 200.6: Acceptable Ambient Air Quality
- 1-2 6NYCRR 201-6.5(a)(7): Fees
- 2 6NYCRR 201-6.5(c): Recordkeeping and reporting of compliance monitoring
- 3 6NYCRR 201-6.5(c)(2): Monitoring, Related Recordkeeping, and Reporting Requirements.
- 4 6NYCRR 201-6.5(c)(3)(ii): Compliance Certification
- 5 6NYCRR 201-6.5(e): Compliance Certification
- 7 6NYCRR 202-2.1: Compliance Certification
- 8 6NYCRR 202-2.5: Recordkeeping requirements
- 1-3 6NYCRR 215: Open Fires Prohibited at Industrial and Commercial Sites
- 1-4 6NYCRR 200.7: Maintenance of Equipment
- 1-5 6NYCRR 201-1.7: Recycling and Salvage
- 1-6 6NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 1-7 6NYCRR 201-3.2(a): Exempt Sources - Proof of Eligibility
- 1-8 6NYCRR 201-3.3(a): Trivial Sources - Proof of Eligibility
- 1-9 6NYCRR 201-6.5(a)(4): Standard Requirement - Provide Information
- 1-10 6NYCRR 201-6.5(a)(8): General Condition - Right to Inspect
- 1-11 6NYCRR 201-6.5(d)(5): Standard Requirements - Progress Reports
- 1-12 6NYCRR 201-6.5(f)(6): Off Permit Changes
- 1-13 6NYCRR 202-1.1: Required Emissions Tests
- 1-14 6NYCRR 211.3: Visible Emissions Limited
- 1-15 40CFR 68: Accidental release provisions.
- 11 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 1 6NYCRR 201-6: Emission Unit Definition
- 6 6NYCRR 201-6.5(f): Compliance Certification
- 9 6NYCRR 212.6(a): Compliance Certification
- 12 40CFR 82, Subpart F: 40 CFR Part 82 - Applicability

Emission Unit Level

- 13 6NYCRR 201-6: Emission Point Definition By Emission Unit
- 14 6NYCRR 201-6: Process Definition By Emission Unit

EU=0-00002

- 15 6NYCRR 212.3(b): Compliance Certification
- 1-16 6NYCRR 212.4(c): Compliance Certification
- 17 6NYCRR 212.10(c)(3): Compliance Certification

EU=0-00002,EP=00201

- 18 40CFR 64: Compliance Certification



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

EU=0-00002,EP=00203,Proc=B03

19 6NYCRR 212.3(b): Compliance Certification

EU=0-00003,EP=00301

20 6NYCRR 212.3(b): Compliance Certification

EU=0-00004

21 6NYCRR 212.4(c): Compliance Certification

EU=0-00004,EP=00401

22 6NYCRR 212.4(c): Compliance Certification

EU=0-00005,EP=00501

23 6NYCRR 212.3(b): Compliance Certification

EU=0-00005,EP=00502

24 6NYCRR 212.3(b): Compliance Certification

EU=0-00005,EP=00503

25 6NYCRR 212.4(c): Compliance Certification

26 40CFR 64: Compliance Certification

EU=0-00006

27 6NYCRR 212.3(b): Compliance Certification

28 6NYCRR 212.3(b): Compliance Certification

29 6NYCRR 212.4(c): Compliance Certification

EU=0-00006,EP=00625

30 6NYCRR 212.4(c): Compliance Certification

EU=0-00006,EP=00625,Proc=F29

31 6NYCRR 212.4(a): Compliance Certification

EU=0-00008,EP=00802,Proc=H02

33 6NYCRR 212.4(c): Compliance Certification

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

34 ECL 19-0301: Contaminant List

35 6NYCRR 201-1.4: Unavoidable noncompliance and violations

36 6NYCRR 211.2: Air pollution prohibited





FEDERALLY ENFORCEABLE CONDITIONS

**** Facility Level ****

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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

Item A: Emergency Defense - 6NYCRR Part 201-1.5

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

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

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

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

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

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

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

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

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

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

Item C: Timely Application for the Renewal of Title V Permits - 6 NYCRR Part 201-6.3(a)(4)

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Item D: Certification by a Responsible Official - 6 NYCRR Part 201-6.3(d)(12)

Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Item E: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.5(a)(2)

The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

Item F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(a)(3)

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6NYCRR Part 201-6.5(a)(5)

It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



order to maintain compliance with the conditions of this permit.

Item H: Property Rights - 6 NYCRR Part 201-6.5(a)(6)

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

Item I: Severability - 6 NYCRR Part 201-6.5(a)(9)

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

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

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

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

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Act;

iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

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

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

i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

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

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

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

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

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

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 1-1: Acceptable Ambient Air Quality
Effective between the dates of 03/15/2006 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 200.6

Item 1-1.1:

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

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 1-2: Fees

Effective between the dates of 03/15/2006 and 05/07/2009

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

Item 1-2.1:

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

Condition 2: Recordkeeping and reporting of compliance monitoring

Effective between the dates of 05/07/2004 and 05/07/2009

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

Item 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 201-6.3 of this Part 201.

Condition 3: Monitoring, Related Recordkeeping, and Reporting Requirements.

Effective between the dates of 05/07/2004 and 05/07/2009

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

Item 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



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

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 4: Compliance Certification
Effective between the dates of 05/07/2004 and 05/07/2009

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

Item 4.1:

The Compliance Certification activity will be performed for the Facility.

Item 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.

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



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

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

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

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

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

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



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

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

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

Monitoring Frequency: SEMI-ANNUALLY
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2004.
Subsequent reports are due every 6 calendar month(s).

Condition 5: Compliance Certification
Effective between the dates of 05/07/2004 and 05/07/2009

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

Item 5.1:

The Compliance Certification activity will be performed for the Facility.

Item 5.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Requirements for compliance certifications with terms and

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



conditions contained in this facility permit include the following:

- i. Compliance certifications shall contain:
 - the identification of each term or condition of the permit that is the basis of the certification;
 - the compliance status;
 - whether compliance was continuous or intermittent;
 - the method(s) used for determining the compliance status of the facility, currently and over the reporting period consistent with the monitoring and related recordkeeping and reporting requirements of this permit;
 - such other facts as the Department may require to determine the compliance status of the facility as specified in any special permit terms or conditions;
 - and
 - such additional requirements as may be specified elsewhere in this permit related to compliance certification.

- ii. The responsible official must include in the annual certification report all terms and conditions contained in this permit which are identified as being subject to certification, including emission limitations, standards, or work practices. That is, the provisions labeled herein as "Compliance Certification" are not the only provisions of this permit for which an annual certification is required.

- iii. Compliance certifications shall be submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department.

- iv. All compliance certifications shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office). Please send annual compliance certifications to Chief of the Stationary Source Compliance Section, the Region 2 EPA representative for the Administrator, at the following address:



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

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

The address for the RAPCE is as follows:

270 Michigan Avenue
Buffalo, NY 14203-2999

The address for the BQA is as follows:

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

Monitoring Frequency: ANNUALLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2005.
Subsequent reports are due on the same day each year

Condition 7: Compliance Certification
Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 202-2.1

Item 7.1:
The Compliance Certification activity will be performed for the Facility.

Item 7.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
Emission statements shall be submitted on or before April
15th each year for emissions of the previous calendar
year.

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 05/07/2004 and 05/07/2009



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Applicable Federal Requirement: 6NYCRR 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 1-3: Open Fires Prohibited at Industrial and Commercial Sites
Effective between the dates of 03/15/2006 and 05/07/2009**

Applicable Federal Requirement: 6NYCRR 215

Item 1-3.1:

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.

**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 1-4: Maintenance of Equipment
Effective between the dates of 03/15/2006 and 05/07/2009**

Applicable Federal Requirement: 6NYCRR 200.7

Item 1-4.1:

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 1-5: Recycling and Salvage
Effective between the dates of 03/15/2006 and 05/07/2009**



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Applicable Federal Requirement: 6NYCRR 201-1.7

Item 1-5.1:

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 1-6: Prohibition of Reintroduction of Collected Contaminants to the air

Effective between the dates of 03/15/2006 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 201-1.8

Item 1-6.1:

No person shall 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 1-7: Exempt Sources - Proof of Eligibility

Effective between the dates of 03/15/2006 and 05/07/2009

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

Item 1-7.1:

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 1-8: Trivial Sources - Proof of Eligibility

Effective between the dates of 03/15/2006 and 05/07/2009

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

Item 1-8.1:

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 1-9: Standard Requirement - Provide Information

Effective between the dates of 03/15/2006 and 05/07/2009

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Applicable Federal Requirement: 6NYCRR 201-6.5(a)(4)

Item 1-9.1:

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 1-10: General Condition - Right to Inspect

Effective between the dates of 03/15/2006 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 201-6.5(a)(8)

Item 1-10.1:

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 1-11: Standard Requirements - Progress Reports

Effective between the dates of 03/15/2006 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 201-6.5(d)(5)

Item 1-11.1:

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



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

(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 1-12: Off Permit Changes

Effective between the dates of 03/15/2006 and 05/07/2009

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

Item 1-12.1:

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

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

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

Condition 1-13: Required Emissions Tests

Effective between the dates of 03/15/2006 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 202-1.1

Item 1-13.1:

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 1-14: Visible Emissions Limited

Effective between the dates of 03/15/2006 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 211.3

Item 1-14.1:

Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

Condition 1-15: Accidental release provisions.

Effective between the dates of 03/15/2006 and 05/07/2009

Applicable Federal Requirement: 40CFR 68

Replaces Condition(s) 10

Item 1-15.1:

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 11: Recycling and Emissions Reduction

Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 40CFR 82, Subpart F

Item 11.1:

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 1: Emission Unit Definition



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 201-6

Item 1.1(From Mod 1):

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

Emission Unit: 0-00002

Emission Unit Description:

Calcined and uncalcined materials are fed into a series of furnaces, heated into a slagged material, crushed, screened, and fed through a second stage calciner, screened, blended, pulverized and discharged for final product pack out.

Building(s): 0000000008
0000000010
0000000011
0000000018
0000000115
0000000123
0000000134
0000000137
0000000143
0000000145
0000000162

Item 1.2(From Mod 0):

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

Emission Unit: 0-00003

Emission Unit Description:

Calcined and uncalcined materials are milled and discharged for pack out or sent on for further processing.

Building(s): 0000000123

Item 1.3(From Mod 0):

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

Emission Unit: 0-00004

Emission Unit Description:

Raw materials consisting of rutile, soda ash and pot ash are mixed and fed through a calciner, then milled, classified and screened for final pack out.

Building(s): 0000000017

Item 1.4(From Mod 0):



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

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

Emission Unit: 0-00005

Emission Unit Description:

Uncalcined materials are dry milled, mixed with water to form a slurry, then fed through a series of wet mills and holding tanks. The slurry is then calcined, milled and screened for the final product which is discharged for final packout.

Building(s): 0000000008
0000000013

Item 1.5(From Mod 0):

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

Emission Unit: 0-00006

Emission Unit Description:

This emission unit includes those processes associated with the production of HPB, HPB tamtrons, and various dielectric products. The HPB & HPB tamtrons process equipment includes a series of mix and process tanks, electric calciners, a filter press, blenders, and jet mills which lead to a final packout. This emission unit also includes dielectric products which are produced using a series of mixing, milling, calcining, drying, blending, screening and associated material handling equipment leading to final packout.

Building(s): 0000000002
0000000147
0000000158
0000000159
0000000163

Item 1.6(From Mod 0):

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

Emission Unit: 0-00008

Emission Unit Description:

Industrial glass is fed into a ball mill and solvent is added to the mill, the material is rotated until a slurry forms and it is then pumped into a dryer for drying and final packout. Control technologies for the emission unit are currently being evaluated.

Building(s): 0000000103
000000153A

Condition 6: Compliance Certification



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Effective between the dates of 05/07/2004 and 05/07/2009

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

Item 6.1:

The Compliance Certification activity will be performed for the Facility.

Item 6.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Ferro Electronic Material Systems produces ceramic materials for resale and use in other forms of manufacturing. The processes employed include arc furnacing, milling, calcining, and mixing. The primary products manufactured are zirconium silicate, zirconium oxide, titanium oxide, sodium titanate, potassium titanate, calcium carbide with silicates, silicates with flourides, aluminum oxides, and dielectric powders primarily manufactured from barium titanate. The facility emits particulate emissions and nitrogen oxides each in excess of 100 ton per year and is therefore a major source subject to Title V permitting requirements. Additional contaminants emitted include carbon monoxide, sulfur dioxide, volatile organic compounds, and various hazardous air pollutants.

This protocol will allow the facility to evaluate the addition of new emission sources, modification of existing emission sources, and the emission of new contaminants with respect to potential new applicable requirements and to comply with those requirements without re-opening the Title V permit. Examples of potential changes which would be allowed under this protocol are the addition of new processing lines, crushers, screeners, and fabric filter collectors.

Notifications:

Prior to making changes under the terms of this flexibility protocol, Ferro will notify this Department in writing 14 days prior and will include all information necessary to substantiate that the changes are consistent with this protocol and will ensure compliance with all applicable requirements. The information to be submitted includes but is not limited to: a description of the

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



changes to be made; the addition or modification of process and control equipment; the specific contaminants to be emitted; calculations of emission rate potentials and potential to emit based on AP-42 emission factors, stack tests, and/or material balance; and a Air Guide 1 demonstration.

If the submission of this information demonstrates that the changes to be made are not consistent with the terms of this protocol, then the Department will require a permit modification to be submitted.

Recordkeeping:

Ferro shall maintain records of all modifications made under this flexibility protocol. These modifications will be incorporated into the Title V permit at the time of renewal.

Evaluation of Particulate Emissions-212.4(c):

In order to demonstrate compliance with the particulate emission limits of 6NYCRR, Part 212.4(c). The non-HAP particulate ERP will be calculated from new or modified existing sources using mass balance, engineering estimates, or AP-42 emission factors. If the ERP exceeds .05 grains per dscf, then particulate control equipment such as either a fabric filter, high-efficiency cyclone, or scrubber will be required. Prior to the start-up of the new or modified equipment, calculations must demonstrate that the control efficiency will be sufficient to ensure compliance with the standard. A stack test may be required to demonstrate compliance with the emission limit.

Particulate emissions from a potential project shall be evaluated in terms of PM-10 and PM 2.5 emissions. All measured or estimated PM-10 emissions will be assumed PM-2.5. If PM-10 emissions from the project do not equal or exceed 15 tons per year, then the PM-2.5 impacts from the project shall be considered insignificant, no further assessment required and the change will be allowed under the terms of this protocol.

Non-HAP VOCs:

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



ERP > 10 pounds per hour and less than 100 pounds per hour, will result in a minimum rating of "B" and require a minimum of 91% control of these emissions. An Air Guide 1 analysis of emissions will be conducted to determine if that level of control is sufficient. If a BACT analysis or a variance is required, the change will not be allowed under the terms of this flexibility protocol and a permit modification will be required.

Non-HAP or non-VOC:

Ferro will provide a minimum of 75% control for emission rate potentials greater than 10 and less than 100 pounds per hour. An Air Guide 1 analysis of emissions will be conducted to determine if that level of control is sufficient.

General VOC and NOx:

The emission of VOC and Nox from the modification of existing sources or the addition of new sources must be evaluated for the applicability of New Source Review/Prevention of Significant Deterioration and 6NYCRR Part 212.10 RACT requirements. If applicability is determined or an emissions cap is required to limit potential emissions below the major source threshold, then the change will not be allowed under the terms of this protocol.

Hazardous air pollutants:

Hazardous air pollutants are defined as listed in 6NYCRR, Part 200.1(ag). For emissions of these contaminants, a calculated emission rate potential(ERP) > 1 pound per hour, will result in an "A" environmental rating and require a minimum of 99% control of emissions and installation of appropriate emission control equipment to achieve that level. An Air Guide 1 analysis of emissions will be conducted to determine if that level of control from existing or new equipment is sufficient. If it is not then additional control equipment will be required. If a BACT (Best Available Control Technology) analysis or a variance is required, the change will not be allowed under the terms of this flexibility protocol and a permit modification will be required.

The facility shall also make a determination as to whether



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

there are any applicable National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements which may affect the proposed process. If applicability is determined and control technology or an emissions cap is required to limit potential emissions below the major source threshold, then the change will not be allowed under the terms of this protocol.

Trivial and Exempt Emission Sources:

Ferro may add exempt and trivial activities pursuant to 6NYCRR, Part 201-3 as long as the facility maintains records to demonstrate that the emission source(s) is being operated consistent with the stated exemption. The addition of these sources also must be evaluated with respect to PSD/NSR applicability and the provisions set forth in this flexibility protocol prior to the construction of these sources. Emissions from exempt and trivial activities are to be included in calculations to determine major source applicability.

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 7/30/2004.

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

Condition 9: Compliance Certification
Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 212.6(a)

Item 9.1:

The Compliance Certification activity will be performed for the Facility.

Item 9.2:

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



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

owner/operator conducting a daily survey of visible emissions from each emission point at the entire facility. If any visible emissions are identified, corrective action is required as per the attached inspection and maintenance plans identified as Attachments B,C,D, and E. 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: Method 9
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: 6 MINUTE AVERAGE
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2004.
Subsequent reports are due every 6 calendar month(s).

Condition 12: 40 CFR Part 82 - Applicability
Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 40CFR 82, Subpart F

Item 12.1:
This facility is subject to the requirements of 40 CFR 60 Part 82.

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

Condition 13: Emission Point Definition By Emission Unit
Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 201-6

Item 13.1(From Mod 1):
The following emission points are included in this permit for the cited Emission Unit:

| | | | |
|------------------------|--------------------|-----------------|----------------------|
| Emission Unit: 0-00002 | | | |
| Emission Point: 00217 | | | |
| Height (ft.): 11 | Diameter (in.): 36 | | Building: 0000000115 |
| Emission Point: 00201 | | | |
| Height (ft.): 53 | Length (in.): 738 | Width (in.): 36 | Building: 0000000162 |

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



| | | |
|---|--------------------|---|
| Emission Point: 00202 Height (ft.): 29 | Diameter (in.): 38 | Building: 0000000137 |
| Emission Point: 00203 Height (ft.): 32 | Length (in.): 24 | Width (in.): 18 Building: 0000000143 |
| Emission Point: 00205 Height (ft.): 36 | Diameter (in.): 14 | Building: 0000000143 |
| Emission Point: 00206 Height (ft.): 38 | Diameter (in.): 15 | Building: 0000000123 |
| Emission Point: 00207 Height (ft.): 34 | Diameter (in.): 10 | Building: 0000000143 |
| Emission Point: 00208 Height (ft.): 46 | Diameter (in.): 12 | Building: 0000000011 |
| Emission Point: 00209 Height (ft.): 46 | Diameter (in.): 16 | Building: 0000000011 |
| Emission Point: 00210 Height (ft.): 27 | Diameter (in.): 18 | Building: 0000000008 |
| Emission Point: 00211 Height (ft.): 40 | Diameter (in.): 12 | Building: 0000000143 |
| Emission Point: 00212 Height (ft.): 20 | Diameter (in.): 10 | Building: 0000000018 |
| Emission Point: 00213 Height (ft.): 27 | Diameter (in.): 18 | Building: 0000000008 |
| Emission Point: 00214 Height (ft.): 38 | Diameter (in.): 30 | |

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Building: 0000000145

Emission Point: 00215
Height (ft.): 38

Diameter (in.): 30

Building: 0000000145

Emission Point: 00216
Height (ft.): 27

Diameter (in.): 9

Building: 0000000123

Item 13.2(From Mod 0):

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

Emission Unit: 0-00003

Emission Point: 00301
Height (ft.): 40

Diameter (in.): 12

Building: 0000000123

Item 13.3(From Mod 0):

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

Emission Unit: 0-00004

Emission Point: 00401
Height (ft.): 41

Diameter (in.): 23

Building: 0000000017

Emission Point: 00402
Height (ft.): 30

Diameter (in.): 8

Building: 0000000017

Item 13.4(From Mod 0):

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

Emission Unit: 0-00005

Emission Point: 00501
Height (ft.): 51

Diameter (in.): 29

Building: 0000000008

Emission Point: 00502
Height (ft.): 39

Diameter (in.): 12

Building: 0000000008

Emission Point: 00503
Height (ft.): 37

Diameter (in.): 15

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Building: 0000000013

Item 13.5(From Mod 0):

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

Emission Unit: 0-00006

Emission Point: 00601
Height (ft.): 51

Diameter (in.): 30

Building: 0000000002

Emission Point: 00602
Height (ft.): 51

Diameter (in.): 30

Building: 0000000002

Emission Point: 00603
Height (ft.): 46

Diameter (in.): 13

Building: 0000000002

Emission Point: 00604
Height (ft.): 37

Diameter (in.): 12

Building: 0000000002

Emission Point: 00606
Height (ft.): 16

Diameter (in.): 10

Building: 0000000147

Emission Point: 00607
Height (ft.): 36

Diameter (in.): 12

Building: 0000000002

Emission Point: 00608
Height (ft.): 20

Diameter (in.): 8

Building: 0000000147

Emission Point: 00609
Height (ft.): 20

Diameter (in.): 10

Building: 0000000147

Emission Point: 00610
Height (ft.): 12

Diameter (in.): 11

Building: 0000000147

Emission Point: 00611
Height (ft.): 30

Length (in.): 16

Width (in.): 12

Building: 0000000002



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

| | | |
|---|--------------------|----------------------|
| Emission Point: 00612 Height (ft.): 18 | Diameter (in.): 8 | Building: 0000000147 |
| Emission Point: 00613 Height (ft.): 30 | Diameter (in.): 6 | Building: 0000000002 |
| Emission Point: 00614 Height (ft.): 30 | Diameter (in.): 6 | Building: 0000000002 |
| Emission Point: 00618 Height (ft.): 20 | Diameter (in.): 10 | Building: 0000000002 |
| Emission Point: 00619 Height (ft.): 36 | Diameter (in.): 24 | Building: 0000000163 |
| Emission Point: 00620 Height (ft.): 10 | Diameter (in.): 12 | Building: 0000000002 |
| Emission Point: 00621 Height (ft.): 20 | Diameter (in.): 8 | Building: 0000000002 |
| Emission Point: 00622 Height (ft.): 14 | Diameter (in.): 8 | Building: 0000000002 |
| Emission Point: 00623 Height (ft.): 37 | Diameter (in.): 20 | Building: 0000000147 |
| Emission Point: 00624 Height (ft.): 19 | Diameter (in.): 12 | Building: 0000000002 |
| Emission Point: 00625 Height (ft.): 35 | Diameter (in.): 15 | Building: 0000000147 |
| Emission Point: 00627 Height (ft.): 3 | Diameter (in.): 3 | Building: 0000000158 |

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



| | | |
|---|--------------------|----------------------|
| Emission Point: 00629 Height (ft.): 23 | Diameter (in.): 3 | Building: 0000000159 |
| Emission Point: 00631 Height (ft.): 30 | Diameter (in.): 6 | Building: 0000000002 |
| Emission Point: 00632 Height (ft.): 46 | Diameter (in.): 8 | Building: 0000000002 |
| Emission Point: 00633 Height (ft.): 37 | Diameter (in.): 6 | Building: 0000000002 |
| Emission Point: 00634 Height (ft.): 10 | Diameter (in.): 24 | Building: 0000000002 |
| Emission Point: 00635 Height (ft.): 30 | Diameter (in.): 2 | Building: 0000000002 |
| Emission Point: 00637 Height (ft.): 23 | Diameter (in.): 3 | Building: 0000000002 |
| Emission Point: 00638 Height (ft.): 10 | Diameter (in.): 24 | Building: 0000000002 |

Item 13.6(From Mod 0):

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

| | | |
|---|-------------------|--------------------------------------|
| Emission Unit: 0-00008 | | |
| Emission Point: 00801 Height (ft.): 10 | Diameter (in.): 6 | Building: 0000000103 |
| Emission Point: 00802 Height (ft.): | Length (in.): | Width (in.): Building: 0000000103 |
| Emission Point: 00803 | | |



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

| | | |
|-----------------------|-------------------|----------------------|
| Height (ft.): | Length (in.): | Width (in.): |
| | | Building: 0000000103 |
| Emission Point: 00804 | | |
| Height (ft.): 10 | Diameter (in.): 6 | Building: 0000000103 |
| Emission Point: 00805 | | |
| Height (ft.): | Length (in.): | Width (in.): |
| | | Building: 0000000103 |
| Emission Point: 00806 | | |
| Height (ft.): | Length (in.): | Width (in.): |
| | | Building: 0000000103 |

Condition 14: Process Definition By Emission Unit
Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 201-6

Item 14.1(From Mod 1):

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

Emission Unit: 0-00002
Process: B01 Source Classification Code: 3-05-999-99

Process Description:

Three high temperature carbon arc furnaces (#9, #10, & #11) used for the smelting of zirconium silicate. Amorphous silica fume dust (SiO₂) is released as a result of the smelting operation. Emissions from the three furnaces are exhausted to a single baghouse. Collected silica is primarily sold for off-site re-use.

Emission Source/Control: 20100 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 21700 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 20101 - Process

Emission Source/Control: 20102 - Process

Emission Source/Control: 20103 - Process

Item 14.2(From Mod 0):

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

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Emission Unit: 0-00002

Process: B02

Source Classification Code: 3-05-150-02

Process Description:

Rotary gas fired 7 x 40 calciner. Emissions associated with natural gas combustion by products, along with dust generated during calcining, are exhausted through a gravity settling chamber and then to a baghouse.

Emission Source/Control: 20200 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 20201 - Control

Control Type: GRAVITY COLLECTOR

Emission Source/Control: 20202 - Process

Item 14.3(From Mod 0):

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

Emission Unit: 0-00002

Process: B03

Source Classification Code: 3-05-150-02

Process Description:

Rotary gas fired 6 x 60 calciner and associated cooling system. Emissions associated with natural gas combustion by products along with generated dust are exhausted to a cyclone.

Emission Source/Control: 20300 - Control

Control Type: SINGLE CYCLONE

Emission Source/Control: 20301 - Process

Item 14.4(From Mod 0):

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

Emission Unit: 0-00002

Process: B04

Source Classification Code: 3-99-999-98

Process Description:

Organics volatilized during the carbon furnace bottom bake out process are exhausted through the calciner and associated cyclone and stack. No emissions control is provided by the cyclone. The calciner is not required to be operational during the furnace bake out process.

Emission Source/Control: 20300 - Control

Control Type: SINGLE CYCLONE

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Emission Source/Control: 20302 - Process

Item 14.5(From Mod 0):

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

Emission Unit: 0-00002

Process: B06

Source Classification Code: 3-05-150-03

Process Description:

Dust generated from the pulverizer (hammer mill) and associated materials handling system is exhausted to a baghouse.

Emission Source/Control: 20500 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 20501 - Process

Item 14.6(From Mod 0):

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

Emission Unit: 0-00002

Process: B07

Source Classification Code: 3-05-150-03

Process Description:

Mechanical dry mill and associated material handling system. Generated dust is exhausted to a baghouse.

Emission Source/Control: 20600 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 20601 - Process

Item 14.7(From Mod 0):

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

Emission Unit: 0-00002

Process: B08

Source Classification Code: 3-05-150-03

Process Description:

Generated dust from the mechanical 8 x 8 dry mill and associated material handling systems is exhausted to a baghouse.

Emission Source/Control: 20700 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 20701 - Process



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Item 14.8(From Mod 0):

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

Emission Unit: 0-00002

Process: B09

Source Classification Code: 3-05-150-03

Process Description:

Generated dust from the crushing/screening system in Building 11 used for size reduction and associated materials handling system is exhausted to a baghouse.

Emission Source/Control: 20800 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 20801 - Process

Item 14.9(From Mod 0):

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

Emission Unit: 0-00002

Process: B10

Source Classification Code: 3-05-150-03

Process Description:

Crushing/screening system in Building 11 used for size reduction and associated materials handling system. Generated dust from crushers, screens, and material handling equipment is exhausted to a baghouse.

Emission Source/Control: 20900 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 20901 - Process

Item 14.10(From Mod 0):

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

Emission Unit: 0-00002

Process: B11

Source Classification Code: 3-05-150-03

Process Description:

Generated dust from the crushing/screening system in Building 8 used for size reduction and associated materials handling system is exhausted to a baghouse.

Emission Source/Control: 21000 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 21001 - Process

Item 14.11(From Mod 0):

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



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

Emission Unit: 0-00002

Process: B12

Source Classification Code: 3-05-150-01

Process Description:

Dusts generated from the materials handling system associated with the transfer into and from storage bins and associated with the transfer to the 6 x 60 calciner located in Building 143 are exhausted to a baghouse. It also includes a blending system for materials prior to discharge into the calciner.

Emission Source/Control: 21100 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 21101 - Process

Item 14.12(From Mod 0):

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

Emission Unit: 0-00002

Process: B13

Source Classification Code: 3-05-150-05

Process Description:

Dust generated from the materials blending system and associated materials handling equipment located in Building 18 is exhausted to a baghouse.

Emission Source/Control: 21200 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 21201 - Process

Item 14.13(From Mod 0):

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

Emission Unit: 0-00002

Process: B14

Source Classification Code: 3-05-150-04

Process Description:

Dust generated from the secondary screening system operated in conjunction with a crushing/screening system (process B09) is exhausted to a baghouse.

Emission Source/Control: 21300 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 21301 - Process



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Item 14.14(From Mod 0):

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

Emission Unit: 0-00002

Process: B15

Source Classification Code: 3-05-150-05

Process Description:

Dust generated from the materials blending system and associated materials handling equipment located in Building 8 is exhausted to a baghouse.

Emission Source/Control: 21300 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 21301 - Process

Item 14.15(From Mod 0):

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

Emission Unit: 0-00002

Process: B16

Source Classification Code: 3-05-999-99

Process Description:

Two magnetic separators used to separate magnetic and non magnetic materials as part of the ceramics processing operation. Dust generated as a result of material transfers in the process is exhausted to a baghouse.

Emission Source/Control: 21300 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 21302 - Process

Item 14.16(From Mod 0):

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

Emission Unit: 0-00002

Process: B17

Source Classification Code: 3-05-150-03

Process Description:

Crushing/screening system for furnace slag. Large pieces of slag are crushed and screened as part of the initial size reduction processing of the material. Generated dust associated with the crushing, screening, and material handling systems is exhausted through a settling chamber and then into two similar baghouses.

Emission Source/Control: 21406 - Control

Control Type: GRAVITY COLLECTOR



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Emission Source/Control: 21500 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 21401 - Process

Emission Source/Control: 21402 - Process

Item 14.17(From Mod 0):

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

Emission Unit: 0-00002

Process: B19

Source Classification Code: 3-05-150-04

Process Description:

Materials handling equipment, a cooler, and storage bins associated with the 7 x 40 calciner. Dust generated during material handling and cooling of calcined material is exhausted to a baghouse.

Emission Source/Control: 20200 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 20203 - Process

Item 14.18(From Mod 0):

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

Emission Unit: 0-00002

Process: B21

Source Classification Code: 3-05-999-99

Process Description:

Magnetic separator for a material drying/mixing system. Generated dust is exhausted to two similar baghouses.

Emission Source/Control: 21500 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 21404 - Process

Item 14.19(From Mod 0):

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

Emission Unit: 0-00003

Process: C01

Source Classification Code: 3-05-150-03

Process Description:

Generated dust from the mechanical dry mill and the associated material handling system is exhausted to a baghouse.



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Emission Source/Control: 30100 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 30101 - Process

Item 14.20(From Mod 0):

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

Emission Unit: 0-00004

Process: D01

Source Classification Code: 3-05-150-02

Process Description:

Rotary fired gas calciner. Emissions associated with natural gas combustion by products, along with dust generated during calcining, are exhausted to a cyclone and then to a baghouse.

Emission Source/Control: 40100 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 40102 - Control
Control Type: SINGLE CYCLONE

Emission Source/Control: 40101 - Process

Item 14.21(From Mod 0):

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

Emission Unit: 0-00004

Process: D02

Source Classification Code: 3-05-150-03

Process Description:

Mechanical dry mill, classifying system, and associated materials handling equipment. Generated dust from milling, classifying, and materials handling is exhausted to a baghouse.

Emission Source/Control: 40200 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 40201 - Process

Item 14.22(From Mod 0):

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

Emission Unit: 0-00004

Process: D03

Source Classification Code: 3-05-150-03

Process Description:

Emissions from the Hammer mill and associated materials

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



handling system are exhausted to a baghouse.

Emission Source/Control: 40200 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 40202 - Process

Item 14.23(From Mod 0):

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

Emission Unit: 0-00004

Process: D04

Source Classification Code: 3-05-150-05

Process Description:

A mixer, cooler, and materials handling equipment associated with the Building 17 calciner. Emissions associated with dust generated during mixing, cooling, and material handling are exhausted to a cyclone and then to a baghouse.

Emission Source/Control: 40100 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 40102 - Control
Control Type: SINGLE CYCLONE

Emission Source/Control: 40103 - Process

Item 14.24(From Mod 0):

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

Emission Unit: 0-00005

Process: E01

Source Classification Code: 3-05-150-02

Process Description:

Rotary gas fired calciner(7 X 70) and associated cooling system. Emissions associated with natural gas combustion by-products along with generated dust are exhausted via natural draft through a settling chamber and into the atmosphere.

Emission Source/Control: 50100 - Control
Control Type: GRAVITY COLLECTOR

Emission Source/Control: 50101 - Process

Item 14.25(From Mod 0):

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



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Emission Unit: 0-00005

Process: E02

Source Classification Code: 3-05-150-03

Process Description:

Dust from the mechanical dry mill, the 7 x 70 calciner cooler, and associated material handling systems located in Building 8 is exhausted to a baghouse.

Emission Source/Control: 50200 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 50201 - Process

Item 14.26(From Mod 0):

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

Emission Unit: 0-00005

Process: E03

Source Classification Code: 3-05-150-03

Process Description:

Dust from the mechanical dry mill and material handling system located in Building 13 is exhausted to a baghouse.

Emission Source/Control: 50300 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 50301 - Process

Item 14.27(From Mod 0):

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

Emission Unit: 0-00006

Process: F01

Source Classification Code: 3-05-150-02

Process Description:

Emissions from the 6x60 rotary fired gas calciner (natural gas combustion by-products and generated dust) located in Building 2 are exhausted via natural draft through settling chamber and into the atmosphere.

Emission Source/Control: 60100 - Control

Control Type: GRAVITY COLLECTOR

Emission Source/Control: 60101 - Process

Item 14.28(From Mod 0):

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

Emission Unit: 0-00006

Process: F02

Source Classification Code: 3-05-150-02

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Process Description:

Emissions from the 6x50 rotary fired gas calciner (natural gas combustion by-products and generated dust) located in Building 2 are exhausted via natural draft through a settling chamber and into the atmosphere.

Emission Source/Control: 60200 - Control

Control Type: GRAVITY COLLECTOR

Emission Source/Control: 60201 - Process

Item 14.29(From Mod 0):

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

Emission Unit: 0-00006

Process: F03

Source Classification Code: 3-05-150-04

Process Description:

Material handling system associated with a belt dryer. The material handling system includes grinding equipment used for size reduction prior to final transfer of the material from the system. Dust generated from the system is exhausted to a baghouse. The product collector (Torit baghouse) discharges to the atmosphere.

Emission Source/Control: 60300 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 63200 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 60301 - Process

Item 14.30(From Mod 0):

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

Emission Unit: 0-00006

Process: F04

Source Classification Code: 3-05-150-04

Process Description:

Material handling system associated with a twin drum dryer includes grinding equipment used for size reduction prior to final transfer of the material from the system. Dust generated from the system is exhausted to a baghouse. The product collector (Torit baghouse) discharges to atmosphere.

Emission Source/Control: 60400 - Control

Control Type: FABRIC FILTER

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Emission Source/Control: 63300 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 60401 - Process

Item 14.31(From Mod 0):

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

Emission Unit: 0-00006

Process: F05

Source Classification Code: 3-05-150-03

Process Description:

Eight-inch jet mill located in Building 2. Material is fed into the mill and ground to a very fine particle size using high pressure air. Ground material is discharged directly into a product collector (baghouse) which discharges into a hopper. Emissions are vented through the baghouse to the atmosphere

Emission Source/Control: 62405 - Control

Control Type: GRAVITY COLLECTOR

Emission Source/Control: 62406 - Process

Item 14.32(From Mod 0):

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

Emission Unit: 0-00006

Process: F06

Source Classification Code: 3-05-150-03

Process Description:

Material is fed into the 20 " jet mill located in Building 147 and ground to a very fine particle size using high pressure air. Ground material is discharged directly into a product collector (baghouse) which discharges product into a hopper. Emissions are vented through the baghouse to the atmosphere.

Emission Source/Control: 60600 - Control

Control Type: GRAVITY COLLECTOR

Emission Source/Control: 60601 - Process

Item 14.33(From Mod 0):

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

Emission Unit: 0-00006

Process: F07

Source Classification Code: 3-05-150-03



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Process Description:

Dust generated from the pulverizer (hammer mill) and associated material handling equipment located in Building 2 is exhausted to a baghouse.

Emission Source/Control: 60700 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 60701 - Process

Item 14.34(From Mod 0):

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

Emission Unit: 0-00006

Process: F08

Source Classification Code: 3-05-150-03

Process Description:

A 20" jet mill located in Building 147. Material is fed into the mill and ground to a very fine particle size using high pressure air. Ground material is discharged directly into a product collector (baghouse) which discharges product into a hopper. Emissions from the jet mill are vented through the baghouse product collector to the atmosphere.

Emission Source/Control: 60800 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 60801 - Process

Item 14.35(From Mod 0):

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

Emission Unit: 0-00006

Process: F09

Source Classification Code: 3-05-150-03

Process Description:

A 20" jet mill located in Building 147. Material is fed into the mill and ground to a very fine particle size using high pressure air. Ground material is discharged directly into a product collector (baghouse) which discharges product into a hopper. Emissions from the jet mill are vented through the baghouse product collector to the atmosphere.

Emission Source/Control: 60900 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 60901 - Process

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Item 14.36(From Mod 0):

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

Emission Unit: 0-00006

Process: F10

Source Classification Code: 3-05-150-03

Process Description:

Discharge hoppers for four jet mills located in Building 147. Material discharged from the product collector is dropped into a hopper. Dust generated from transfer of jet-milled material into each hopper is exhausted to a single baghouse.

Emission Source/Control: 61000 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 61001 - Process

Emission Source/Control: 61002 - Process

Emission Source/Control: 61003 - Process

Emission Source/Control: 61004 - Process

Item 14.37(From Mod 0):

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

Emission Unit: 0-00006

Process: F11

Source Classification Code: 3-05-150-04

Process Description:

Dust generated the filling and discharging of material from two blenders located in Building 147 is exhausted to a single baghouse.

Emission Source/Control: 61000 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 61005 - Process

Emission Source/Control: 61006 - Process

Item 14.38(From Mod 0):

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

Emission Unit: 0-00006

Process: F12

Source Classification Code: 3-05-150-03

Process Description:



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

A 24" jet mill located in Building 2. Material is fed into the mill and ground to a very fine particle size using high pressure air. Ground material is discharged directly into a product collector (baghouse) which discharges product into a hopper. Emissions from the jet mill are vented through the baghouse product collector to the atmosphere.

Emission Source/Control: 61100 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 61101 - Process

Item 14.39(From Mod 0):

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

Emission Unit: 0-00006

Process: F13

Source Classification Code: 3-05-150-03

Process Description:

A 20" jet mill located in Building 147. Material is fed into the mill and ground to a very fine particle size using high pressure air. Ground material is discharged directly into a product collector (baghouse) which discharges product into a hopper. Emissions from the jet mill are vented through the baghouse product collector to the atmosphere.

Emission Source/Control: 61200 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 61201 - Process

Item 14.40(From Mod 0):

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

Emission Unit: 0-00006

Process: F14

Source Classification Code: 3-05-150-02

Process Description:

The cooler and material handling equipment associated with the 6x50 calciner located in Building 2. Dust generated during cooling and material transfer is exhausted to a baghouse.

Emission Source/Control: 61300 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 61301 - Process

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Item 14.41(From Mod 0):

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

Emission Unit: 0-00006

Process: F15

Source Classification Code: 3-05-150-04

Process Description:

The cooler and material handling equipment associated with the 6 x 60 calciner located in Building 2. Dust generated during cooling and material transfers is exhausted to a baghouse.

Emission Source/Control: 61400 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 61401 - Process

Item 14.42(From Mod 0):

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

Emission Unit: 0-00006

Process: F16

Source Classification Code: 3-05-150-04

Process Description:

A local exhaust used to control dust generated during weighing of product hoppers is exhausted to a baghouse.

Emission Source/Control: 61000 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 61007 - Process

Item 14.43(From Mod 0):

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

Emission Unit: 0-00006

Process: F18

Source Classification Code: 3-05-150-05

Process Description:

Local exhaust for two mix tanks. Dust generated from the addition of solid material to the mix tanks is exhausted from the tank to the baghouse.

Emission Source/Control: 63100 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 63102 - Process

Item 14.44(From Mod 0):



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

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

Emission Unit: 0-00006

Process: F19

Source Classification Code: 3-05-150-05

Process Description:

Dust generated from the addition of solid material to a single mix tank is exhausted from the tank directly to the atmosphere.

Emission Source/Control: 61800 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 61801 - Process

Item 14.45(From Mod 0):

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

Emission Unit: 0-00006

Process: F20

Source Classification Code: 3-05-999-99

Process Description:

Two granulators are used to break apart clumped ceramic material as part of the sagger (small ceramic containers) loading process. Dust generated from the granulation process and sagger loading is exhausted to a baghouse.

Emission Source/Control: 61900 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 61901 - Process

Emission Source/Control: 61902 - Process

Emission Source/Control: 61903 - Process

Item 14.46(From Mod 0):

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

Emission Unit: 0-00006

Process: F21

Source Classification Code: 3-05-150-04

Process Description:

Discharge of a cone blender after blending. No emissions are generated during blending. Dust generated during filling is exhausted to a baghouse.

Emission Source/Control: 62000 - Control

Control Type: FABRIC FILTER



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Emission Source/Control: 62001 - Process

Item 14.47(From Mod 0):

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

Emission Unit: 0-00006

Process: F22

Source Classification Code: 3-05-150-04

Process Description:

Filling of a cone blender prior to blending. No emissions are generated during blending. Dust generated during filling is exhausted to a baghouse.

Emission Source/Control: 62100 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 62101 - Process

Item 14.48(From Mod 0):

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

Emission Unit: 0-00006

Process: F24

Source Classification Code: 3-99-999-98

Process Description:

Local ventilation associated with non-routine maintenance of TiCl₄ line pumps and valves.

Emission Source/Control: 62302 - Process

Item 14.49(From Mod 0):

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

Emission Unit: 0-00006

Process: F25

Source Classification Code: 3-05-150-05

Process Description:

An exhaust fan which provides ventilation for two mix tanks.

Emission Source/Control: 62301 - Process

Item 14.50(From Mod 0):

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

Emission Unit: 0-00006

Process: F26

Source Classification Code: 3-05-150-03

Process Description:

The discharge from a 24" jet mill to a product hopper. Dust generated during the discharge of a processed

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



material into the hopper is exhausted to a baghouse.

Emission Source/Control: 62400 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 62404 - Process

Item 14.51(From Mod 0):

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

Emission Unit: 0-00006

Process: F27

Source Classification Code: 3-05-150-05

Process Description:

Cone blending process. Dust is generated during the filling and discharge from the blender. No dust is generated during the blending process. Generated dust is exhausted to a baghouse.

Emission Source/Control: 62400 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 62402 - Process

Emission Source/Control: 62403 - Process

Item 14.52(From Mod 0):

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

Emission Unit: 0-00006

Process: F28

Source Classification Code: 3-05-150-03

Process Description:

A pulverizer 3th (hammer mill) and associated material handling equipment located in Building 2. Dust generated is exhausted to a baghouse.

Emission Source/Control: 62400 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 62401 - Process

Item 14.53(From Mod 0):

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

Emission Unit: 0-00006

Process: F29

Source Classification Code: 3-99-999-89

Process Description:

Ventilation system associated with the filling of the



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

TiCl₄ storage tank. During filling operations displaced TiCl₄ vapors are exhausted to a water scrubber.

Emission Source/Control: 62500 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 62501 - Process

Item 14.54(From Mod 0):

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

Emission Unit: 0-00006

Process: F30

Source Classification Code: 3-05-150-05

Process Description:

Local exhaust systems which provide ventilation for ten process/mix tanks. The ventilation systems exhausts vapor and dust to a water scrubber.

Emission Source/Control: 62500 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 62502 - Process

Emission Source/Control: 62503 - Process

Emission Source/Control: 62504 - Process

Emission Source/Control: 62505 - Process

Emission Source/Control: 62506 - Process

Emission Source/Control: 62507 - Process

Emission Source/Control: 62508 - Process

Emission Source/Control: 62509 - Process

Emission Source/Control: 62510 - Process

Emission Source/Control: 62512 - Process

Item 14.55(From Mod 0):

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

Emission Unit: 0-00006

Process: F31

Source Classification Code: 3-99-999-98

Process Description:



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

A vacuum filtration system. Vapors generated during the filtration process are exhausted to a water scrubber.

Emission Source/Control: 62500 - Control
Control Type: WET SCRUBBER

Emission Source/Control: 62511 - Process

Item 14.56(From Mod 0):

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

Emission Unit: 0-00006
Process: F32
Source Classification Code: 3-05-150-02
Process Description:
Two electrically heated kilns used to calcine ceramic materials. Dust and moisture generated during the calcining process are exhausted from each kiln to a baghouse.

Emission Source/Control: 62400 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 62408 - Process

Emission Source/Control: 62409 - Process

Item 14.57(From Mod 0):

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

Emission Unit: 0-00006
Process: F35
Source Classification Code: 3-99-999-98
Process Description:
NaOH vapors are exhausted to atmosphere during filling of the NaOH storage tank.

Emission Source/Control: 62901 - Process

Item 14.58(From Mod 0):

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

Emission Unit: 0-00006
Process: F37
Source Classification Code: 3-05-150-02
Process Description:
Process associated with the 6x60 and 6x50 calciner feed systems which discharge dust from the calciner feed into a baghouse and then to the atmosphere.



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Emission Source/Control: 63100 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 63101 - Process

Emission Source/Control: 63102 - Process

Item 14.59(From Mod 0):

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

Emission Unit: 0-00006

Process: F38

Source Classification Code: 3-05-150-05

Process Description:

Material is dumped into the Shar Mix Tank for blending.
Dust generated from the addition of solid material into
the tank is exhausted to the baghouse.

Emission Source/Control: 63400 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 63401 - Process

Item 14.60(From Mod 0):

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

Emission Unit: 0-00006

Process: F39

Source Classification Code: 3-05-150-03

Process Description:

A 24" Jet Mill located in Building 2. Material is fed
into the mill and ground to a very fine particle size
using high pressure air. Ground material is discharged
directly into a product collector (baghouse) which
discharges into a hopper. Emissions from the jet mill are
vented through the product collector (baghouse) to
atmosphere.

Emission Source/Control: 63500 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 63501 - Process

Item 14.61(From Mod 0):

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

Emission Unit: 0-00006

Process: F40

Source Classification Code: 3-05-150-03

Process Description:



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Discharge from a 24" Jet Mill to a product hopper. Dust generated during the discharge of the processed material into the hopper is exhausted to a baghouse.

Emission Source/Control: 62400 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 62407 - Process

Item 14.62(From Mod 0):

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

Emission Unit: 0-00006

Process: F41

Source Classification Code: 3-05-150-05

Process Description:

Material is dumped into a small Hockmeyer mixing tank for blending and subsequent processing in the Netszch Mills. Dust generated during the loading of the tank is exhausted to a baghouse and then to the atmosphere.

Emission Source/Control: 63700 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 63701 - Process

Item 14.63(From Mod 0):

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

Emission Unit: 0-00006

Process: F42

Source Classification Code: 3-05-150-02

Process Description:

Dried trays of material from the Quincy dryers are dumped into a hopper for further processing. The dust generated from the tray dumping operation is exhausted to a baghouse and then into the atmosphere.

Emission Source/Control: 63700 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 63702 - Process

Item 14.64(From Mod 0):

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

Emission Unit: 0-00006

Process: F43

Source Classification Code: 3-05-150-05

Process Description:



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

The batch weigh DC process consists of a material blending system and associated material handling equipment. Dust generated from the blending process and material handling equipment is exhausted to two similar baghouses in series.

Emission Source/Control: 63800 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 63801 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 63802 - Process

Emission Source/Control: 63803 - Process

Emission Source/Control: 63804 - Process

Item 14.65(From Mod 0):

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

Emission Unit: 0-00006

Process: F44

Source Classification Code: 3-05-150-05

Process Description:

The Batch Weigh DC process consists of a material blending system and associated material handling equipment. Dust generated from the blending process and material handling equipment is exhausted to two similar baghouses in series.

Emission Source/Control: 63800 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 63801 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 63805 - Process

Emission Source/Control: 63806 - Process

Emission Source/Control: 63807 - Process

Item 14.66(From Mod 0):

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

Emission Unit: 0-00008

Process: H01

Source Classification Code: 4-90-999-99

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Process Description:

Process consists of pumping a slurry material containing glass and Isopropyl Alcohol into two tray dryers for drying. Fugitive emissions are created during the filling of the tray dryers. The air from each dryer is vented to the atmosphere.

Emission Source/Control: 80101 - Process

Emission Source/Control: 80401 - Process

Item 14.67(From Mod 0):

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

Emission Unit: 0-00008

Process: H02

Source Classification Code: 4-90-999-99

Process Description:

Process consists of a tray dumping operation where dried trays of material are dumped into a container for a final packout. Currently a baghouse is being evaluated for controlling dust from this operation.

Emission Source/Control: 80200 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 80201 - Process

Item 14.68(From Mod 0):

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

Emission Unit: 0-00008

Process: H03

Source Classification Code: 4-90-999-99

Process Description:

Industrial glass fed into a ball mill which contains ceramic beads. Isopropyl Alcohol is added to the ball mill through a valve and the mill is then rotated for a set period of time until the contents become a slurry. During filling operations of the ball mill, fugitive isopropyl alcohol emissions are generated.

Emission Source/Control: 80301 - Process

Item 14.69(From Mod 0):

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

Emission Unit: 0-00008

Process: H04

Source Classification Code: 4-90-999-99



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Process Description:

This process consists of pumping a slurry of material containing glass and a solvent into a tray dryer that is placed under a lab hood for drying.

Emission Source/Control: 80501 - Process

Item 14.70(From Mod 0):

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

Emission Unit: 0-00008

Process: H05

Source Classification Code: 4-90-999-99

Process Description:

Process consists of filling the mill with solids and solvent as well as final packout of the dried material.

Emission Source/Control: 80601 - Process

Emission Source/Control: 80602 - Process

Emission Source/Control: 80603 - Process

Condition 15: Compliance Certification

Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 212.3(b)

Item 15.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00002

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 15.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Implementation of a routine baghouse control equipment inspection, maintenance, and recordkeeping plan as described in Attachment B in order to ensure continuous compliance with the particulate emission limit of .15 grains/dscf as applicable to emission points 205, 206, and 207. The inspection will occur weekly or between production runs or as a result of a visible emissions

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



evaluation.

The pressure drop(delta P) across the fabric filter control device will be monitored and recorded daily. Readings outside established normal operating ranges will require that inspection and maintenance procedures as described in Attachment B be implemented to ensure continuous compliance.

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 7/30/2004.

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

Condition 1-16: Compliance Certification

Effective between the dates of 03/15/2006 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 212.4(c)

Item 1-16.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00002

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 1-16.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Implementation of a routine baghouse control equipment inspection, maintenance, and recordkeeping plan as described in Attachment B in order to ensure continuous compliance with the particulate emission limit of 0.05 grains/dscf applicable to emission points 201, 202, 204, 208, 209, 210, 211, 212, 213, 214, 215, 216, and 217. The inspection will occur weekly or between production runs or as a result of a visible emissions evaluation.

The pressure drop (delta P) across the fabric filter control device will be monitored and recorded daily. Readings outside established normal operating ranges will require that inspection and maintenance procedures as



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

described in Attachment B be implemented to ensure continuous compliance.

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 7/30/2006.

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

Condition 17: Compliance Certification
Effective between the dates of 05/07/2004 and 05/07/2009

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

Item 17.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00002

Regulated Contaminant(s):

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

Item 17.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The three single-phase electric arc furnaces described in process B01 (the single R & D three-phase furnace described in process B05 has been removed from service), each having actual average emissions of nitrogen oxides(NOx) of 15.9#/hour and a combined total of 210 tons per year are subject to the Reasonably Available Control Requirements(RACT) set forth in 6NYCRR, Part 212.10 for major sources of NOx. Ferro submitted a RACT analysis with the initial Title V application which evaluated the technical and economic feasibility of available control technologies for electric arc furnaces. This analysis determined that there is no feasible control technology available to comply with the RACT requirements for NOx and requested a variance from the RACT control strategy requirement. This Department and the USEPA in their 11/25/98 correspondence from R. Ruvo(USEPA) to J. Di Pronio(NYSDEC) concurred with this determination. Therefore, the RACT demonstration was submitted to the USEPA for approval as a revision to the New York State



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Implementation Plan(SIP). The special conditions to establish RACT are incorporated into this Title V permit as follows:

1. Nitrogen oxide emissions from each furnace is limited to 15.9#/hour and 210 tons per year. These emissions correspond to an average raw material charging rate of 1550#/hour per furnace. The appropriate production recordkeeping will be maintained to demonstrate compliance with these limits and made available to department representatives upon request.
2. The facility must continue to evaluate control technologies and other compliance strategies to reduce NOx emissions as they become available. When established as technically and economically feasible, Ferro shall implement these control strategies as RACT.

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 7/30/2004.

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

Condition 18: Compliance Certification

Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 40CFR 64

Item 18.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00002 Emission Point: 00201

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 18.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Emission point 00201 exhausts emissions from three high temperature carbon arc furnaces used for the melting of zirconium and designated as 9, 10 & 11, located in emission unit 2. Potential emissions of particulates are

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



greater than 100 tons per year and therefore subject to the Compliance Assurance Monitoring Rule. Ferro has submitted a plan for monitoring consistent with the requirements of the rule as follows:

Indicator:

1. Visible emissions: from the baghouse exhaust are monitored daily during a facility survey.
2. Pressure Drop: across the baghouse is measured with a magnehelic differential pressure gauge.
3. Weekly (or between production runs or result of VE evaluation) inspection according to I/M checklist; maintenance performed as needed.

Range:

1. An average opacity of less than 20% (6-min average). Excursions trigger an inspection and corrective action per the maintenance procedures.
2. An excursion is defined as a pressure drop less than 1 inches water column or greater than 15 inches water column. Excursions trigger inspection and maintenance plan.

Performance Criteria:

1. Opacity is observed at the emission point during source operation. Any visible emissions require corrective action as per the I/M program.
2. Pressure drop across the baghouse is measured at the inlet and outlet. The gauge has a minimum accuracy of 2% over the instrument range.
3. Inspections are performed at the baghouses.

QA/QC:

1. Observer will be familiar with the percent opacity designation and will complete the daily log.
2. The pressure gauge is calibrated via a zero check when the baghouse is not in use. Pressure taps are checked for plugging daily.
3. Qualified personnel perform the inspection.

Monitoring Frequency:

1. Observation is performed daily during facility survey and documented by the observer. Agency reserves the right to request or conduct Method 9 evaluation.

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



2. Pressure drop is monitored continuously and recorded daily.
3. Weekly inspection and records are maintained to document the inspection and any required maintenance.

A monitoring report must be submitted semi-annually with the required compliance certifications and which summarizes the number, duration, and cause of exceedances and corrective actions taken. This report shall also include the number, duration, and cause of the magnetic downtime other than routine downtime for calibration checks. These records are to be maintained for a period of five years.

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 7/30/2004.

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

Condition 19: Compliance Certification
Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 212.3(b)

Item 19.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00002 Emission Point: 00203
Process: B03

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

Item 19.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

A maintenance and inspection program for cyclone collectors as described in Attachment D will be implemented whereby the collected material will be removed and the control device inspected on a minimum six month basis



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

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 7/30/2004.

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

Condition 20: Compliance Certification
Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 212.3(b)

Item 20.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00003 Emission Point: 00301

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 20.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Implementation of a routine baghouse control equipment inspection, maintenance, and recordkeeping plan in order to ensure compliance with the particulate emission limit of .15 grains/dscf. The inspection will occur weekly or between production runs or as a result of a visible emissions evaluation.

The pressure drop(delta P) across the fabric filter control device will be monitored and recorded daily. Readings outside established normal operating ranges will require that inspection and maintenance procedures be implemented to ensure continuous compliance.

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 7/30/2004.

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

Condition 21: Compliance Certification
Effective between the dates of 05/07/2004 and 05/07/2009



Applicable Federal Requirement: 6NYCRR 212.4(c)

Item 21.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00004

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 21.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Implementation of a routine baghouse control equipment inspection, maintenance, and recordkeeping plan as described in Attachment B in order to ensure continuous compliance with the particulate emission limit of .05 grains/dscf as applicable to emission points 401 and 402. The inspection will occur weekly or between production runs or as a result of a visible emissions evaluation.

The pressure drop(delta P) across the fabric filter control device will be monitored and recorded daily. Readings outside established normal operating ranges will require that inspection and maintenance procedures be implemented to ensure continuous compliance.

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 7/30/2004.

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

Condition 22: Compliance Certification
Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 212.4(c)

Item 22.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00004 Emission Point: 00401

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 22.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Implementation of a cyclone control equipment inspection, maintenance, and recordkeeping plan as described in Attachment D in order to ensure continuous compliance with the particulate emission limit of .05 grains/dscf.

Monitoring Frequency: SEMI-ANNUALLY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2004.

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

Condition 23: Compliance Certification

Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 212.3(b)

Item 23.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00005 Emission Point: 00501

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 23.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

A maintenance program for settling chambers as described in Attachment C will be implemented whereby the collected material will be removed and the control device inspected on a minimum six month basis in order to ensure continuous compliance with the particulate emission limit of .15 gr/dscf.

Monitoring Frequency: SEMI-ANNUALLY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Reports due 30 days after the reporting period.
The initial report is due 7/30/2004.
Subsequent reports are due every 6 calendar month(s).

Condition 24: Compliance Certification
Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 212.3(b)

Item 24.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00005 Emission Point: 00502

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

Item 24.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Implementation of a routine baghouse control equipment inspection, maintenance, and recordkeeping plan as described in attachment B in order to ensure continuous compliance with the particulate emission limit of .15 grains/dscf. The inspection will occur weekly or between production runs or as a result of visible emissions evaluations.

The pressure drop(delta P) across the fabric filter control device will be monitored and recorded daily. Readings outside established normal operating ranges will require that inspection and maintenance procedures as described in Attachment B be implemented to ensure continuous compliance.

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 7/30/2004.

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

Condition 25: Compliance Certification
Effective between the dates of 05/07/2004 and 05/07/2009

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Applicable Federal Requirement: 6NYCRR 212.4(c)

Item 25.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00005 Emission Point: 00503

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 25.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Implementation of a routine baghouse control equipment inspection, maintenance, and recordkeeping plan as described in Attachment B in order to ensure continuous compliance with the particulate emission limit of .05 grains/dscf. The inspections will occur weekly or between production runs or as a result of visible emissions evaluations.

The pressure drop(delta P) across the fabric filter control device will be monitored and recorded daily. Readings outside established normal operating ranges will require that inspection and maintenance procedures as described in Attachment B be implemented to ensure continuous compliance.

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 7/30/2004.

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

Condition 26: Compliance Certification

Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 40CFR 64

Item 26.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00005 Emission Point: 00503

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 26.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Emission point 00503, the 7 x 10 mill, located in emission unit 5 has potential emissions of particulates greater than 100 tons per year and is therefore subject to the Compliance Assurance Monitoring Rule. Ferro has submitted a plan for monitoring consistent with the requirements of the rule as follows:

Indicator:

1. Visible emissions: from the baghouse exhaust are monitored daily during a facility survey.
2. Pressure Drop: across the baghouse is measured with a magnehelic differential pressure gauge.
3. Weekly (or between production runs or result of VE evaluation) inspection according to I/M checklist; maintenance performed as needed.

Range:

1. An average opacity of less than 20% (6-min average). Excursions trigger an inspection and corrective action per the maintenance procedures.
2. An excursion is defined as a pressure drop less than 1 inches water column or greater than 15 inches water column. Excursions trigger inspection and maintenance plan.

Performance Criteria:

1. Opacity is observed at the emission point during source operation. Any visible emissions require corrective action as per the I/M program.
2. Pressure drop across the baghouse is measured at the inlet and outlet. The gauge has a minimum accuracy of 2% over the instrument range.
3. Inspections are performed at the baghouses.

QA/QC:

1. Observer will be familiar with the percent opacity designation and will complete the daily log.

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



2. The pressure gauge is calibrated via a zero check when the baghouse is not in use. Pressure taps are checked for plugging daily.
3. Qualified personnel perform the inspection.

Monitoring Frequency:

1. Observation is performed daily during facility survey and documented by the observer. Agency reserves the right to request or conduct Method 9 evaluation.
2. Pressure drop is monitored continuously and recorded daily.
3. Weekly inspection and records are maintained to document the inspection and any required maintenance.

A monitoring report must be submitted semi-annually with the required compliance certifications and which summarizes the number, duration, and cause of exceedances and corrective actions taken. This report shall also include the number, duration, and cause of the magnehelic downtime other than routine downtime for calibration checks. These records are to be maintained for a period of five years.

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 7/30/2004.

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

Condition 27: Compliance Certification

Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 212.3(b)

Item 27.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00006

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 27.2:

Compliance Certification shall include the following monitoring:

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Implementation of a routine baghouse control equipment inspection, maintenance, and recordkeeping plan as described in Attachment B in order to ensure continuous compliance with the particulate emission limit of .15 grains/dscf as applicable to emission points 613 and 614. The inspection will occur weekly or between production runs or as a result of a visible emissions evaluation.

The pressure drop(delta P) across the fabric filter control device will be monitored and recorded daily. Readings outside established normal operating ranges will require that inspection and maintenance procedures as described in attachment B will be implemented to ensure continuous compliance.

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 7/30/2004.

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

Condition 28: Compliance Certification
Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 212.3(b)

Item 28.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00006

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 28.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

A documented maintenance program for the settling chambers as described in Attachment C whereby collected material is removed and a periodic inspection performed on



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

a minimum six month basis as applicable to emission points 601 and 602.

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 7/30/2004.

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

Condition 29: Compliance Certification
Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 212.4(c)

Item 29.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00006

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 29.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Implementation of a routine baghouse control equipment inspection, maintenance, and recordkeeping plan as described in Attachment B in order to ensure compliance with the particulate emission limit of .05 grains/dscf as applicable to emission points 603, 604, 606, 607, 608, 609, 610, 611, 612, 619, 620, 621, 624, 630, 631, 618, 632, 633, 634, 635, 637, and 638. The inspection will occur weekly or between production runs or as a result of a visible emissions evaluation.

The pressure drop(delta P) across the fabric filter control device will be monitored and recorded daily. Readings outside established normal operating ranges will require that inspection and maintenance procedures as described in Attachment B will be implemented to ensure compliance with the particulate emission limit of .05 grains/dscf.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2004.

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

Condition 30: Compliance Certification

Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 212.4(c)

Item 30.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00006 Emission Point: 00625

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 30.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Regularly scheduled scrubber maintenance program as described in attachment E consists of twice per year scheduled cleaning of the system packing and associated air and water nozzles to ensure the maximum removal efficiency and compliance with the particulate emission standard of .05gr/dscf.

Monitoring Frequency: SEMI-ANNUALLY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2004.

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

Condition 31: Compliance Certification

Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 212.4(a)

Item 31.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00006 Emission Point: 00625

Process: F29



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

Regulated Contaminant(s):

CAS No: 007647-01-0 HYDROGEN CHLORIDE

Item 31.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The scrubber maintenance program as described in attachment E consists of twice per year cleaning of the system packing and associated air and water nozzles and an internal inspection of the scrubber housing and ductwork to identify signs of wear and corrosion. The allowable emission rate of HCL for this process having an emission rate potential of 107#/hr and requiring 94% control is 6.4#/hr.

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 7/30/2004.

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

Condition 33: Compliance Certification

Effective between the dates of 05/07/2004 and 05/07/2009

Applicable Federal Requirement: 6NYCRR 212.4(c)

Item 33.1:

The Compliance Certification activity will be performed for:

Emission Unit: 0-00008 Emission Point: 00802

Process: H02

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 33.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Implementation of a routine baghouse control equipment inspection, maintenance, and recordkeeping plan as described in Attachment B in order to ensure compliance

New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032



with the particulate emission limit of 0.05 gr/dscf as applicable to emission point 00802, process H02. Particulate emissions from processes H03 (EP 00803) and H05 (EP 00806) are also subject to the 0.05 grain limit and calculations shall demonstrate compliance with this limit.

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 7/30/2004.

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 34: Contaminant List
Effective between the dates of 05/07/2004 and 05/07/2009

Applicable State Requirement: ECL 19-0301

Item 34.1:

Emissions of the following contaminants are subject to contaminant specific requirements in this



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 007647-01-0

Name: HYDROGEN CHLORIDE

CAS No: 0NY210-00-0

Name: OXIDES OF NITROGEN

CAS No: 0NY075-00-0

Name: PARTICULATES

Condition 35: Unavoidable noncompliance and violations
Effective between the dates of 05/07/2004 and 05/07/2009

Applicable State Requirement: 6NYCRR 201-1.4

Item 35.1:

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



New York State Department of Environmental Conservation

Permit ID: 9-2930-00032/00263

Facility DEC ID: 9293000032

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 36: Air pollution prohibited
Effective between the dates of 05/07/2004 and 05/07/2009

Applicable State Requirement: 6NYCRR 211.2

Item 36.1:

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.