

New York State Department of Environmental Conservation
Facility DEC ID: 9291100148



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 9-2911-00148/00007
Effective Date: 09/30/2005 Expiration Date: No expiration date

Permit Issued To: PRECISION ELECTRO MINERALS COMPANY
150 PORTAGE ROAD
NIAGARA FALLS, NY 14303-1535

Contact: ABDUL S LABI
PRECISION ELECTRO MINERALS
150 PORTAGE RD
NIAGARA FALLS, NY 14303
(716) 284-2482

Facility: PRECISION ELECTRO MINERALS CO (PEMCO)
150 PORTAGE RD
NIAGARA FALLS, NY 14303

Description:
(PEMCO) IS A MANUFACTURER OF AN INDUSTRIAL PRODUCT KNOWN AS FUSED SILICA. THE MANUFACTURING PLANT AND OFFICE IS LOCATED ON AN APPROXIMATELY 5+/- ACRE SITE AT 150 PORTAGE RD, CITY OF NIAGARA FALLS, NEW YORK. THE RAW MATERIAL USED TO PRODUCE THIS PRODUCT IS SILICA SAND. HIGH TEMPERATURE FURNACES, OF WHICH THE PLANT HAS FOUR, ARE USED TO PRODUCE THE FUSED SILICA "INGOT" FROM THE SILICA SAND. AFTER FURNACING, THE FUSED SILICA IS CRUSHED AND SCREENED TO CREATE THE FINISHED PRODUCT. THREE EXISTING BAGHOUSE DUST COLLECTORS (EMISSIONS POINTS ID #00001, #00002, & #00003) ARE USED TO CONTROL EMISSIONS FROM THE FURNACING, CRUSHING AND SCREENING OPERATIONS PRODUCING FUSED SILICA.

EMISSION UNIT #3-00001 WAS RECENTLY ADDED IN A NEW PRODUCTION AREA ALONG WITH A NEWLY ADDED 3RD BAGHOUSE DUST COLLECTOR TO CONTROL EMISSIONS FROM THESE NEW FURNACES. THIS NEW COLLECTOR WILL BE IDENTIFIED AS EMISSION POINT #00003 AND WILL BE SIMILAR TO THE COLLECTOR CONTROLLING EMISSIONS FROM EXISTING FURNACES #1 & #2. IT IS ANTICIPATED THESE NEW FURNACES WILL BE IN OPERATION BUT TO DATE PRODUCT DEMAND HAS NOT WARRANTED THEM. WHEN COMPLETE THE PLANT WILL HAVE A TOTAL OF THREE (3) EMISSIONS POINTS. ALL THREE (3) EMISSION POINTS WILL BE STACKS FROM BAGHOUSE DUST COLLECTORS.

THE FACILITY WILL CONTROL PARTICULATE EMISSIONS BY DESIGNATING A PERSON TO INSPECT DUCTWORK AND CONTROL EQUIPMENT AT THE BEGINNING OF EACH

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SHIFT. THIS PERSON WILL ALSO LOG MAGNEHELIC GAUGE READINGS TO DETERMINE IF CONTROL EQUIPMENT IS FUNCTIONING WITHIN THE FACILITY PERMIT LIMITS. IF THESE READINGS ARE OUTSIDE OF THE SET LIMITS OR IF PARTICULATE EMISSIONS ARE OBSERVED OUT A STACK OR THROUGH DEFECTS IN DUCTWORK OR CONTROL EQUIPMENT THE PROCESS WILL BE SHUT DOWN FOR MAINTENANCE.

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: DAVID S DENK
 DIVISION OF ENVIRONMENTAL PERMITS
 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 ******
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:

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

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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

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ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY PERMIT

IDENTIFICATION INFORMATION

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150 PORTAGE ROAD
NIAGARA FALLS, NY 14303-1535

Facility: PRECISION ELECTRO MINERALS CO (PEMCO)
150 PORTAGE RD
NIAGARA FALLS, NY 14303

Authorized Activity By Standard Industrial Classification Code:
3297 - NONCLAY REFRACTORIES

Permit Effective Date: 09/30/2005

Permit Expiration Date: No expiration date.



LIST OF CONDITIONS

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

- 1 ECL 19-0301: Contaminant List
- 2 6NYCRR 201-1.4: Unavoidable noncompliance and violations
- 3 6NYCRR 201-5: Emission Unit Definition
- 4 6NYCRR 201-5.3(b): Compliance Demonstration
- 5 6NYCRR 211.2: Air pollution prohibited
- 6 6NYCRR 211.2: Compliance Demonstration
- 7 6NYCRR 212.6: Compliance Demonstration

Emission Unit Level

- 8 6NYCRR 201-5: Emission Point Definition By Emission Unit
- 9 6NYCRR 201-5: Process Definition By Emission Unit

EU=1-00001,EP=00001,Proc=001

- 10 6NYCRR 212.4: Compliance Demonstration

EU=2-00001,EP=00002,Proc=002

- 11 6NYCRR 212.4: Compliance Demonstration

EU=3-00001,EP=00003,Proc=003

- 12 6NYCRR 212.4: Compliance Demonstration



STATE ONLY ENFORCEABLE CONDITIONS

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

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Public Access to Recordkeeping for Facilities With State Facility Permits - 6NYCRR Part 201-1.10(a)

Where emission source owners and/or operators keep records pursuant to compliance with the operational flexibility requirements of 6 NYCRR Subpart 201-5.4(b)(1) , and/or the emission capping requirements of 6 NYCRR Subparts 201-7.2(d), 201-7.3(f), 201-7.3(g), 201-7.3(h)(5), 201-7.3(i) and 201-7.3(j), the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Emission source owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department of receipt of the request.

Item B: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or

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law.

STATE ONLY APPLICABLE REQUIREMENTS

The following conditions are state only enforceable.

Condition 1: Contaminant List

Effective between the dates of 09/30/2005 and Permit Expiration Date

Applicable State Requirement: ECL 19-0301

Item 1.1:

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

CAS No: 0NY075-00-0

Name: PARTICULATES

CAS No: 014808-60-7

Name: QUARTZ

CAS No: 060676-86-0

Name: SILICA VITREOUS

Condition 2: Unavoidable noncompliance and violations

Effective between the dates of 09/30/2005 and Permit Expiration Date

Applicable State Requirement: 6NYCRR 201-1.4

Item 2.1:

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.

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(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 superseded by conditions elsewhere in this permit which contain reporting and notification provisions for applicable requirements more stringent than those above.

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

(d) In the event of maintenance, start-up/shutdown or malfunction conditions which result in emissions exceeding any applicable emission standard, the facility owner and/or operator shall take appropriate action to prevent emissions which will result in contravention of any applicable ambient air quality standard. Reasonably available control technology, as determined by the commissioner, shall be applied during any maintenance, start-up/shutdown or malfunction condition subject to this paragraph.

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

Condition 3: Emission Unit Definition
Effective between the dates of 09/30/2005 and Permit Expiration Date

Applicable State Requirement: 6NYCRR 201-5

Item 3.1:

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

Emission Unit: 1-00001

Emission Unit Description:

ELECTRIC ARC FURNACES #1 & #2 PRODUCE
FUSED SILICA "INGOTS" FROM SILICA SAND. A
BAGHOUSE DUST COLLECTOR WHICH EXHAUSTS TO
ATMOSPHERE THROUGH A STACK KNOWN AS
EMISSION POINT 00001 CONTROLS PARTICULATE
EMISSIONS FROM THESE FURNACES.

Building(s): 4A

Item 3.2:

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



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Emission Unit: 2-00001

Emission Unit Description:

FUSED SILICA IS CRUSHED, SCREENED AND BAGGED TO PRODUCE A FINISHED PRODUCT. THIS PROCESS/SYSTEM WHICH IS KNOWN AS SECONDARY CRUSHING USES TWO CRUSHERS, TWO SCREENERS, A BAGGING MACHINE AND MISC. STORAGE BINS AND CONVEYORS. EMISSION POINT 00002 IS A STACK FROM A BAGHOUSE COLLECTOR WHICH DISCHARGES TO ATMOSPHERE. IT IS USED TO CONTROL PARTICULATE EMISSIONS FROM THIS SYSTEM/PROCESS.

Building(s): 4

Item 3.3:

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

Emission Unit: 3-00001

Emission Unit Description:

ELECTRIC ARC FURNACES #3 & #4 WILL PRODUCE FUSED SILICA "INGOTS" FROM SILICA SAND. A CYCLONE DUST COLLECTOR WITH AFTER FILTER BAGS WILL REMOVE PARTICULATE EMISSIONS BEFORE EXHAUSTING TO ATMOSPHERE VIA A STACK IDENTIFIED AS EMISSION POINT 00003

Building(s): 4A

Condition 4: Compliance Demonstration

Effective between the dates of 09/30/2005 and Permit Expiration Date

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

Item 4.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 4.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

DURING THE CRUSHING OPERATION PRODUCTION BUILDING DOORS AND WINDOWS MUST BE SEALED OR COVERED WITH MATERIAL WHICH WILL GIVE

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ACCESS TO EMPLOYEES WITHOUT DIRECTLY LETTING AIR FLOW FROM THE PRODUCTION AREA TO THE OUTSIDE ATMOSPHERE. IF AN AREA IS LEFT OPEN FOR FUGITIVE EMISSIONS IT IS THE OWNERS RESPONSIBILITY TO ENSURE PRODUCTION AIRBORNE CONTAMINANTS WILL NOT ENTER THE ENVIRONMENT. OFFSITE MIGRATION OF AIRBORNE POLLUTANTS CAUSED BY OPEN AREAS WILL BE A VIOLATION OF THIS PERMIT.

Monitoring Frequency: CONTINUOUS

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 5: Air pollution prohibited
Effective between the dates of 09/30/2005 and Permit Expiration Date

Applicable State Requirement: 6NYCRR 211.2

Item 5.1:

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

Condition 6: Compliance Demonstration
Effective between the dates of 09/30/2005 and Permit Expiration Date

Applicable State Requirement: 6NYCRR 211.2

Item 6.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 6.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

PLANT HOUSEKEEPING WILL CONSIST OF PERIODIC REMOVAL OF FINE SILICA DUST WHICH ACCUMULATES ON THE FLOOR AND EQUIPMENT. FLOOR SWEEPINGS SHALL BE

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PLACED INTO SUPER SACS WHICH CAN BE CLOSED AND REMAIN CLOSED UNTIL THE TIME OF DISPOSAL. WASTE SILICA FROM DUST COLLECTORS MUST ALSO BE PLACED INTO CLOSEABLE SACS. ALL WASTE SILICA INGOTS MUST BE PLACED ON AN AREA OF THE PROPERTY WHERE THERE WILL BE NO OFF SITE MIGRATION. REMOVAL OF THIS WASTE WILL BE ON A SEMI-ANNUAL FREQUENCY OR SOONER IF PRODUCTION INCREASES.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 7: Compliance Demonstration
Effective between the dates of 09/30/2005 and Permit Expiration Date

Applicable State Requirement: 6NYCRR 212.6

Item 7.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 7.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

NO PERSON SHALL CAUSE OR ALLOW EMISSIONS HAVING AN AVERAGE OPACITY DURING ANY SIX CONSECUTIVE MINUTES OF 20 PERCENT OR GREATER FROM ANY PROCESS EMISSION SOURCE, EXCEPT ONLY THE EMISSION OF UNCOMBINED WATER. COMPLIANCE WITH THIS REQUIREMENT SHALL BE DETERMINED BY THE FACILITY OWNER/OPERATOR CONDUCTING A DAILY SURVEY (NON-METHOD 9 OBSERVATION) OF VISIBLE EMISSIONS FROM THESE SOURCES. IF ANY ATYPICAL VISIBLE EMISSIONS ARE IDENTIFIED, CORRECTIVE ACTION IS REQUIRED AS APPROPRIATE FOR THE SOURCE. RECORDS OF DAILY SURVEY OF VISIBLE EMISSIONS MUST BE RETAINED FOR FIVE YEARS. THE DEPARTMENT RESERVES THE RIGHT TO PERFORM OPACITY OBSERVATIONS OR REQUIRE THE PERFORMANCE OF A METHOD 9 OPACITY

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EVALUATION BY FIRM REPRESENTATIVE.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 6 MINUTE AVERAGE

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**** Emission Unit Level ****

Condition 8: Emission Point Definition By Emission Unit
Effective between the dates of 09/30/2005 and Permit Expiration Date

Applicable State Requirement: 6NYCRR 201-5

Item 8.1:

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

Emission Unit: 1-00001

Emission Point: 00001

Height (ft.): 8

Length (in.): 17

Width (in.): 16

Building: 4A

Item 8.2:

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

Emission Unit: 2-00001

Emission Point: 00002

Height (ft.): 23

Length (in.): 23

Width (in.): 19

Building: 4

Item 8.3:

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

Emission Unit: 3-00001

Emission Point: 00003

Height (ft.): 6

Length (in.): 48

Width (in.): 30

Building: 4A

Condition 9: Process Definition By Emission Unit
Effective between the dates of 09/30/2005 and Permit Expiration Date

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Applicable State Requirement: 6NYCRR 201-5

Item 9.1:

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

Emission Unit: 1-00001

Process: 001

Process Description:

THIS PROCESS CONSISTS OF TWO ELECTRIC ARC FURNACES WHICH PRODUCE FUSED SILICA INGOTS FROM SILICA SAND. ONLY ONE FURNACE IS ENERGIZED AT ONE TIME. WHILE ONE FURNACE IS ENERGIZED PRODUCING A FUSED SILICA INGOT. THE SECOND FURNACE IS BEING COOLED, UNLOADED AND RELOADED WITH SILICA SAND TO BEGIN THE FURNACING PROCESS ALL OVER AGAIN. AFTER COOLING THE INGOT IT IS REMOVED FOR FURTHER PROCESSING I.E. CRUSHING, SCREENING AND BAGGING. EMISSION POINT 00001 WHICH IS A STACK FROM A BAGHOUSE DUST COLLECTOR PROVIDES DUST COLLECTION FOR THIS FURNACING OPERATION. ONE INGOT IS PRODUCED WEIGHING APPROXIMATELY 9000 LBS EVERY SIX AND ONE HALF (6 1/2 HOURS OF OPERATION WHEN OPERATING AT MAXIMUM OPERATING LEVEL. ACTUAL MAXIMUM INGOTS PRODUCED WAS 25 IN 7 DAYS

Emission Source/Control: 10001 - Control

Control Type: FABRIC FILTER

Emission Source/Control: 10011 - Process

Design Capacity: 11,729,640 pounds per year

Item 9.2:

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

Emission Unit: 2-00001

Process: 002

Process Description:

THIS PROCESS IS A CRUSHING, SCREENING & BAGGING OPERATION THAT PROCESSES FUSED SILICA. THE PROCESS CONSISTS OF TWO CRUSHERS, TWO SCREENERS, ONE BAGGER AND MISC. CONVEYING EQUIPMENT & STORAGE BINS. EMISSION POINT 00002, WHICH IS A STACK FROM



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A BAGHOUSE DUST COLLECTOR PROVIDES DUST COLLECTION FOR THIS CRUSHING, SCREENING AND BAGGING OPERATION. THIS PROCESS NORMALLY OPERATES SIXTEEN (16) HRS PER DAY, FIVE (5) DAYS PER WEEK PROCESSING APPROXIMATELY 2,500 LBS/HR OF FUSED SILICA.

Emission Source/Control: 20001 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 20002 - Process
Design Capacity: 21,900,000 pounds per year

Item 9.3:

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

Emission Unit: 3-00001

Process: 003

Process Description:

THIS PROCESS CONSISTS OF TWO ELECTRIC ARC FURNACES WHICH PRODUCE FUSED SILICA INGOTS FROM SILICA SAND. ONLY ONE FURNACE IS ENERGIZED AT A TIME. WHILE ONE FURNACE IS ENERGIZED PRODUCING A FUSED SILICA INGOT, THE SECOND FURNACE IS BEING COOLED, UNLOADED AND RELOADED WITH SILICA SAND. AFTER COOLING THE INGOT IS REMOVED FOR FURTHER PROCESSING. EMISSION POINT 00003, WHICH IS THE STACK FROM THE BAGHOUSE DUST COLLECTOR PROVIDES DUST COLLECTION FROM THESE TWO FURNACES. ONE INGOT IS PRODUCED WEIGHING APPROXIMATELY 9000 LBS EVERY SIX & ONE HALF (6-1/2) HOURS OF OPERATION WHEN OPERATING AT MAXIMUM LEVEL.

Emission Source/Control: 30001 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 30011 - Process
Design Capacity: 11,729,640 pounds per year

Condition 10: Compliance Demonstration
Effective between the dates of 09/30/2005 and Permit Expiration Date

Applicable State Requirement: 6NYCRR 212.4

Item 10.1:

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The Compliance Demonstration activity will be performed for:

Emission Unit: 1-00001 Emission Point: 00001
Process: 001

Regulated Contaminant(s):
CAS No: 014808-60-7 QUARTZ

Item 10.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

AT THE BEGINNING OF EACH OPERATOR SHIFT
THE READING ON THE MAGNEHELIC PRESSURE
DROP GAUGE MUST BE RECORDED AND THE
CONTROL SYSTEM DUCT WORK INSPECTED.
PLANT MAINTENANCE MUST BE NOTIFIED
IMMEDIATELY IF THE PRESSURE READING ON
THE GAUGE IS NOT WITHIN THE PERMIT LIMITS
OR IF ANY DUCT WORK SHOWS SIGNS OF
LEAKAGE OF PARTICULATE MATTER. RECORDS
MUST CONTAIN THE OPERATORS NAME,
INSPECTION COMMENTS, PROBLEMS FOUND (IF
ANY) AND CORRECTIVE MEASURES TO GET THE
EQUIPMENT BACK ON-LINE. THESE RECORDS
MUST BE STORED ON-SITE FOR DEPARTMENT
REVIEW FOR A PERIOD OF (5) YEARS.

THE ENTIRE BAGHOUSE MUST BE INSPECTED
EVERY (3) THREE MONTHS FOR BAG INTEGRITY
AND CHANGE OUT IF NECESSARY.
DOCUMENTATION OF THIS INSPECTION AND THE
NUMBER OF BAGS REPLACED (IF REQUIRED)
MUST BE KEPT FOR DEPARTMENT REVIEW FOR A
PERIOD OF (5) YEARS. TO INSURE PROPER
OPERATION OF THE CONTROL EQUIPMENT EACH
CURRENT AND FUTURE OPERATOR OF THIS
PROCESS MUST BE TRAINED SEMI- ANNUALLY ON
THE REQUIREMENTS OF THIS PERMIT CONDITION
AND THE PROPER READING OF THE PRESSURE
GAUGES. RECORDS OF THIS TRAINING MUST BE
KEPT ON SITE FOR DEPARTMENT REVIEW ALSO
FOR (5).

Parameter Monitored: PRESSURE CHANGE



New York State Department of Environmental Conservation

Permit ID: 9-2911-00148/00007

Facility DEC ID: 9291100148

Lower Permit Limit: 1.5 inches of water

Upper Permit Limit: 8.0 inches of water

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING
DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 11: Compliance Demonstration

Effective between the dates of 09/30/2005 and Permit Expiration Date

Applicable State Requirement: 6NYCRR 212.4

Item 11.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 2-00001 Emission Point: 00002

Process: 002

Regulated Contaminant(s):

CAS No: 060676-86-0 SILICA VITREOUS

Item 11.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

AT THE BEGINNING OF EACH OPERATOR SHIFT
THE READING ON THE MAGNEHELIC PRESSURE
DROP GAUGE MUST BE RECORDED AND THE
CONTROL SYSTEM DUCT WORK INSPECTED.
PLANT MAINTENANCE MUST BE NOTIFIED
IMMEDIATELY IF THE PRESSURE READING ON
THE GAUGE IS NOT WITHIN THE PERMIT LIMITS
OR IF ANY DUCT WORK SHOWS SIGNS OF
LEAKAGE OF PARTICULATE MATTER. RECORDS
MUST CONTAIN THE OPERATORS NAME,
INSPECTION COMMENTS, PROBLEMS FOUND (IF
ANY) AND CORRECTIVE MEASURES TO GET THE
EQUIPMENT BACK ON-LINE. THESE RECORDS
MUST BE STORED ON-SITE FOR DEPARTMENT
REVIEW FOR A PERIOD OF (5) YEARS.

THE ENTIRE BAGHOUSE MUST BE INSPECTED
EVERY (3) THREE MONTHS FOR BAG INTEGRITY
AND CHANGE OUT IF NECESSARY.

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DOCUMENTATION OF THIS INSPECTION AND THE NUMBER OF BAGS REPLACED (IF REQUIRED) MUST BE KEPT FOR DEPARTMENT REVIEW FOR A PERIOD OF (5) YEARS. TO INSURE PROPER OPERATION OF THE CONTROL EQUIPMENT EACH CURRENT AND FUTURE OPERATOR OF THIS PROCESS MUST BE TRAINED SEMI- ANNUALLY ON THE REQUIREMENTS OF THIS PERMIT CONDITION AND THE PROPER READING OF THE PRESSURE GAUGES. RECORDS OF THIS TRAINING MUST BE KEPT ON SITE FOR DEPARTMENT REVIEW ALSO FOR (5).

Parameter Monitored: PRESSURE CHANGE

Lower Permit Limit: 1.5 inches of water

Upper Permit Limit: 8.0 inches of water

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 12: Compliance Demonstration

Effective between the dates of 09/30/2005 and Permit Expiration Date

Applicable State Requirement: 6NYCRR 212.4

Item 12.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 3-00001 Emission Point: 00003

Process: 003

Regulated Contaminant(s):

CAS No: 014808-60-7 QUARTZ

Item 12.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

AT THE BEGINNING OF EACH OPERATOR SHIFT THE READING ON THE MAGNEHELIC PRESSURE DROP GAUGE MUST BE RECORDED AND THE CONTROL SYSTEM DUCT WORK MUST BE INSPECTED. PLANT MAINTENANCE MUST BE

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NOTIFIED IMMEDIATELY IF THE PRESSURE READING ON THE GAUGE IS NOT WITHIN THE PERMIT LIMITS OR IF ANY DUCT WORK SHOWS SIGNS OF LEAKAGE OF PARTICULATE MATTER. RECORDS MUST CONTAIN THE OPERATORS NAME, INSPECTION COMMENTS, PROBLEMS FOUND (IF ANY) AND CORRECTIVE MEASURE TO GET THE EQUIPMENT BACK ON-LINE. THESE RECORDS MUST BE STORED ON-SITE FOR DEPARTMENT REVIEW FOR A PERIOD OF (5) YEARS.

THE ENTIRE BAGHOUSE MUST BE INSPECTED EVERY (3) THREE MONTHS FOR BAG INTEGRITY AND CHANGE OUT IF NECESSARY. DOCUMENTATION OF THIS INSPECTION AND THE NUMBER OF BAGS REPLACED (IF REQUIRED) MUST BE KEPT FOR DEPARTMENT REVIEW FOR A PERIOD OF (5) YEARS. TO INSURE PROPER PROPER OPERATION OF THE CONTROL EQUIPMENT EACH CURRENT AND FUTURE OPERATOR OF THIS PROCESS MUST BE TRAINED SEMI-ANNUALLY ON THE REQUIREMENTS OF THIS PERMIT CONDITION AND THE PROPER READING OF THE PRESSURE GAUGES. RECORDS OF THIS TRAINING MUST BE KEPT ON SITE FOR DEPARTMENT REVIEW FOR (5) YEARS.

Parameter Monitored: PRESSURE CHANGE

Lower Permit Limit: 1.5 inches of water

Upper Permit Limit: 8.0 inches of water

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY