PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 9-5622-00067/00001
Effective Date: 07/21/2015 Expiration Date: 07/20/2025

Permit Issued To:HILLCREST INDUSTRIES INC
1176 MINKEL RD
STRYKERSVILLE, NY 14145-9520

Contact: DANIEL E KIRSCH
HILLCREST INDUSTRIES INC
40 FAVOR ST
ATTICA, NY 14011
(585) 591-1182

Facility: HILLCREST INDUSTRIES INC
40 FAVOR ST
ATTICA, NY 14011

Contact: DANIEL E KIRSCH
HILLCREST INDUSTRIES INC
40 FAVOR ST
ATTICA, NY 14011
(585) 591-1182

Description:

This is Renewal 1, Modification 0 of the Air State Facility Permit for Hillcrest Industries, Inc. Hillcrest is located in the Village of Attica, Wyoming County and manufactures blasting media and reflective glass beads.

The facility utilizes industrial coal boiler slag, post-consumer glass, and waste glass to manufacture abrasives and shingle rock (a component of roofing shingle manufacturing). This process consists of drying, grinding and sizing of the above materials. The raw material is received by truck. Finished products are shipped by bag, bin, bulk truck, and bulk rail.

Post-consumer glass and waste glass are screened and ground to size to feed the two natural gas furnaces to manufacture reflective glass beads.

The drying, grinding and sizing process takes place in the grinding room, Emission Unit A. Emission point 00001 exhausts the general grinding room air after it passes through a cyclone and baghouse. Emission point 00004 exhausts the natural gas fired rotary drier through a baghouse and panel filters. These two emission points maintain the negative pressure in the grinding room that is required to insure fugitive emissions are not released to the environment.

The grinding room also contains the following operations that do not require a permit: 1.) Dust from the colored glass and grit (slag) grinders and screeners are collected by one cartridge filter

which exhausts back into the grinding room; 2.) Dust from the clear glass grinders and screeners are collected by one baghouse that exhausts into the adjacent bead shop; and 3.) A second general grinding room exhaust fan, referred to as the “inside exhaust fan,” exhausts through panel filters and into the bead shop. This is activated when the overhead door at the east end of the grinding room opens. The latter two exhaust into the bead shop to maintain the negative pressure that is required in the grinding room.

The two natural gas fired glass bead furnaces make up Emission Unit B. Furnace #1, the east furnace, is emission point 00002, and furnace #2, the west furnace, is emission point 00003. Sized glass is fed to the furnaces where it heated to a malleable state and cools to a spherical shape. Each furnace has a drop box which collects product that is carried through the furnace. Following the drop box is a cyclone and a filter box with pre-filters and HEPA filters.

The coal boiler bottom slag is stored outside and is covered on three sides with mixed glass and on top with plastic to shelter the slag and prevent it from becoming airborne. The colored post-consumer glass is stored outside in bunkers. The clear glass is stored inside the red building and outside in the bunkers.

The facility is under an Order on Consent (Order), R9-20120806-98, which includes a compliance schedule, Schedule A. The Order is a result of violations of : air regulations including failure to properly maintain operating equipment and particulate control devices, the reintroduction of collected air contaminants to the atmosphere, the generated air emissions and odors that unreasonably interfere with the comfortable enjoyment of life and property in the surrounding area; their Air State Facility permit, including not maintaining records of dust and visible emission observations; solid waste regulations and the Beneficial Use Determination (BUD) to procure wet bottom boiler slag and use such slag as a raw material, disposing of waste from recyclable handling and recovery facilities on site, and disposing solid waste on site; for operating its manufacturing facility without a State Pollutant Discharge Elimination System (SPDES) Multi-Sector General Stormwater Permit for industrial activities; of the Petroleum Bulk Storage requirements; and placing waste material into the regulated 100-foot adjacent area surrounding a Freshwater Wetland.

Schedule A required on-going activities and the submission of several different plans to minimize emissions. Below is a summary of the on-going activities and plans that are incorporated into this permit, with the item number from the schedule:

a) Item 10 - Processing and Removal of Glass Piles (6/20/13) – Dust monitoring of the stockpiles stored outside.

b) Item 11.b – Furnace Glass Fallout Management Plan (6/20/13) – Furnace fallout must be stored inside and must be wet to be screened/trommeled. This was incorporated into the Best Management Practices Plan required by item 25.

c) Item 12 – Inspect daily and repair any leaks in the material conveying and emission control equipment to minimize fugitive emissions to the environment.

d) Item 13 – All fine screenings, known as minus 70 material (U.S. Sieve size 70), must be stored in containers to prevent releases to the environment.

e) Item 16 – Inspect daily and repair all dust control equipment so there are no visible emissions. This is part of the Emission Control Equipment Monitoring Plan required by item 21.

f) Item 18 – The grinding room must be kept under negative pressure to insure fugitive emissions are not released to the environment. This is addressed in Appendix A, the Best Management Practices Plan, of the Operations Plan required by item 24 and 25 and dated September 2013.

g) Item 20 – Bead Furnace Inspection, Operations and Maintenance Plan (7/1/13) and Grit Plant Inspection, Operations and Maintenance Plan (7/1/13) – These two plans require the process operators to check that the processes are operating properly several times a day, there are no visible emissions or leaks, that maintenance staff insure the dust collectors are operating properly and preventive maintenance procedures are completed for the process equipment.

h) Item 21 – Maintenance and Monitoring Plan, Air Emissions Control Equipment (6/25/15 version) – This defines normal operating parameters for the dust collection systems, and explains what measures will be taken when operating parameters are outside of the normal ranges. This primarily covers the pressure drops across the dust collection filters.

The grinding room general air dust control system, and both glass bead furnaces were emission tested in May/June 2013. The grinding room general air dust control system was 92.2% efficient. The emission rate was 0.04 pounds per hour. The potential emissions before any emission controls, also known as the emission rate potential, averaged 0.56 pounds per hour which is less than 1.0 an hour. When the emission rate potential is less than 1.0 pound an hour, then the degree of air cleaning required in table 2 of 6NYCRR Part 212.9(b) shall be specified by the commissioner (per footnote **). The 92.2% control efficiency for emission point 1was considered acceptable. During the test, the general grinding room air included dust from the rotary natural gas drier, both grinding and screening lines, dust from conveying material, and emissions from the dust control devices that exhausted within the room.

This permit requires that the emission control equipment for the furnaces and the rotary drier be at least 99% effective for particulates. During the May/June 2013 testing, furnace 1 was 99.4% efficient and furnace 2 was 99.0% efficient. Each furnace is rated at 1560 pounds per hour, but they can operate up to 1800 pounds per hour depending on the product. At the time of testing the rotary drier exhausted inside so it was not tested.

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: LISA M CZECHOWICZ
NYSDEC - REGION 9
270 MICHIGAN AVE
BUFFALO, NY 14203-2915

Authorized Signature: _____ Date: ___ / ___ / _____

Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

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

Item B: Permittee's Contractors to Comply with Permit

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

Item C: Permittee Responsible for Obtaining Other Required Permits

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

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

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

LIST OF CONDITIONS

DEC GENERAL CONDITIONS
General Provisions
Facility Inspection by the Department
Relationship of this Permit to Other Department Orders and Determinations
Applications for permit renewals, modifications and transfers
Permit modifications, suspensions or revocations by the Department
Facility Level
Submission of application 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, modifications and transfers
Applicable State Requirement: 6 NYCRR 621.11

Item 3.1:
The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item 3.2:
The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

Item 3.3:
Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

Condition 4: Permit modifications, suspensions or revocations by the Department
Applicable State Requirement: 6 NYCRR 621.13

Item 4.1:
The Department reserves the right to exercise all available authority to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

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

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

Condition 5: Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS
Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 5.1:
Submission of applications for permit modification or renewal are to be submitted to:
NYSDEC Regional Permit Administrator
Region 9 Headquarters
Division of Environmental Permits
270 Michigan Avenue
Buffalo, NY 14203-2915
(716) 851-7165

Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY PERMIT

IDENTIFICATION INFORMATION

Permit Issued To:HILLCREST INDUSTRIES INC
1176 MINKEL RD
STRYKERSVILLE, NY 14145-9520

Facility: HILLCREST INDUSTRIES INC
40 FAVOR ST
ATTICA, NY 14011

Authorized Activity By Standard Industrial Classification Code:
3231 - PRODUCTS OF PURCHASED GLASS
3291 - ABRASIVE PRODUCTS

Permit Effective Date: 07/21/2015 Permit Expiration Date: 07/20/2025

LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS
Facility Level

1 6 NYCRR 200.7: Maintenance of Equipment
2 6 NYCRR 201-1.7: Recycling and Salvage
3 6 NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
4 6 NYCRR 201-1.8: Compliance Demonstration
5 6 NYCRR 200.7: Compliance Demonstration
6 6 NYCRR 211.1: Air pollution prohibited
7 6 NYCRR 211.1: Compliance Demonstration
8 6 NYCRR 211.1: Compliance Demonstration
9 6 NYCRR 212.4: Compliance Demonstration
10 6 NYCRR 212.4: Compliance Demonstration
11 6 NYCRR 212.4: Compliance Demonstration
12 6 NYCRR 212.4: Compliance Demonstration
13 6 NYCRR 212.6 (a): Compliance Demonstration

Emission Unit Level

EU=0-0000A

14 6 NYCRR 212.4: Compliance Demonstration
15 6 NYCRR 212.4: Compliance Demonstration

EU=0-0000A,EP=00001

16 6 NYCRR 200.7: Compliance Demonstration
17 6 NYCRR 200.7: Compliance Demonstration
18 6 NYCRR 212.4: Compliance Demonstration

EU=0-0000A,EP=00004

19 6 NYCRR 212.4: Compliance Demonstration
20 6 NYCRR 212.4: Compliance Demonstration

EU=0-0000A,EP=00004,Proc=003

21 6 NYCRR 200.7: Compliance Demonstration

EU=0-0000B

22 6 NYCRR 200.7: Compliance Demonstration
23 6 NYCRR 200.7: Compliance Demonstration
24 6 NYCRR 212.4: Compliance Demonstration
25 6 NYCRR 212.4: Compliance Demonstration

STATE ONLY ENFORCEABLE CONDITIONS
Facility Level

26 ECL 19-0301: Contaminant List
27 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
28 6 NYCRR Subpart 201-5: Emission Unit Definition
29 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits

30 6 NYCRR 201-5.3 (c): Compliance Demonstration
31 6 NYCRR 211.2: Visible Emissions Limited

Emission Unit Level

32 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
33 6 NYCRR Subpart 201-5: Process Definition By Emission Unit

FEDERALLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: **Sealing - 6 NYCRR 200.5**

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation. Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

Item B: **Acceptable Ambient Air Quality - 6 NYCRR 200.6**

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

Item C: **Maintenance of Equipment - 6 NYCRR 200.7**

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

required to operate such device effectively.

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

If an existing emission source was subject to the permitting requirements of 6 NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply:

(a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.

(b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

Item E: Emergency Defense - 6 NYCRR 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 F: **Recycling and Salvage - 6 NYCRR 201-1.7**

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

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

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

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

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item I: **Proof of Eligibility for Sources Defined as Trivial Activities - 6 NYCRR 201-3.3 (a)**

The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Part 201 may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item J: **Required Emission Tests - 6 NYCRR 202-1.1**

An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating permit. Notification and acceptable procedures are specified in 6 NYCRR Subpart 202-1.

Item K: **Open Fires Prohibitions - 6 NYCRR 215.2**
Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

Item 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.

FEDERAL APPLICABLE REQUIREMENTS
The following conditions are federally enforceable.

Condition 1: **Maintenance of Equipment**

Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 200.7

Item 1.1:
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 2: Recycling and Salvage
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 201-1.7

Item 2.1:
Where practical, the owner or operator of an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of the ECL.

Condition 3: Prohibition of Reintroduction of Collected Contaminants to the air
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 201-1.8

Item 3.1:
No person shall unnecessarily remove, handle or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

Condition 4: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 201-1.8

Item 4.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: 0-0000A

Emission Unit: 0-0000B

Item 4.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Minus 70 material and dust collector dust must be stored in containers

(Item 13 in Schedule A of the Order)

1.) All minus 70 material and dust from dust collectors must be stored in containers or bags to prevent reentrainment. Minus 70 material passes through U.S. Sieve Size Number 70, a 0.210 millimeter opening.

2.) On a weekly basis inspect any minus 70 or dust collector dust storage containers or bags stored outside to ensure they are not compromised. Any compromised containers or bags shall be addressed immediately to prevent further releases or exposure to the environment.

3.) The results of the inspections shall be recorded in a log along with any corrective actions taken to address compromised storage containers or bags.

4.) The inspection and corrective action records shall be provided to the department upon request.

Monitoring Frequency: WEEKLY
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 5: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 200.7

Item 5.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 5.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

No excess emissions from equipment
(Item 12 in Schedule A of the Order)

1.) The following items must be inspected daily for leaks:
a.) material feed lines to the furnaces,
b.) exterior material conveying systems, and
c.) emission control equipment.

2.) Any leaks must be repaired immediately. Any leaked material shall be cleaned up promptly.

3.) The results of the inspections shall be recorded in a log along with any corrective actions taken to repair

leaks.

4.) The inspection and corrective action records shall be provided upon request by the department.

Monitoring Frequency: DAILY
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 6: Air pollution prohibited
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 211.1

Item 6.1:
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 7: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 211.1

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

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

Item 7.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

No visible emissions from the stockpiles stored outside (Item 10 in Schedule A of the Order)

1.) The stockpiles of material stored outside shall not have visible fugitive emissions.

2.) Weekly, each stock pile shall be evaluated for visible emissions. A site map should be updated as stock piles move, are created or are eliminated. Visible emission observations from the stock piles started on a daily basis in 2013, but no visible emissions were observed so the frequency was decreased to weekly.

3.) The observations shall be recorded in a log book that is available to the department.

4.) Records shall be submitted to the department upon request.

Monitoring Frequency: WEEKLY
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 8: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 211.1

Item 8.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 8.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Furnace Glass Fallout Management Plan (6/20/2013 version)
(Item 11 in Schedule A of the Order)

1.) The glass that falls out the bottom of the furnace must be stored inside, out of the elements, and managed to minimize fugitive emissions to the environment.

2.) Only wet furnace fallout may be processed through the rotary screener (trommel).

3.) If there are fugitive emissions from trommeling the furnace fallout, then the trommeling shall stop immediately.

4.) If the furnace fallout is processed by direct transfer into the main building, which is under negative pressure, then wetting is not required.

5.) There are no record keeping or reporting requirements for this condition.

Monitoring Frequency: WHEN THE SOURCE IS OPERATING
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 9: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212.4

Item 9.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: 0-0000A Emission Point: 00001

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

Item 9.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:

Stack Test Requirement - Grinding Room Baghouse Control Efficiency for Particulate Emissions from Emission Point 1

1.) The emissions of particulates associated with the production of abrasive glass grit, glass beads and black abrasive grit have been a fallout problem in the nearby residential community. Therefore under 6NYCRR Part 212.9(a), process emissions of particulate emissions from the following emission point has been assigned an Environmental Rating of A:

Emission point 00001 – general ventilation system for the grinding room

2.) Particulate air contaminants that have an Environmental Rating of A are required to have emission control efficiency of 99% or greater, or best available control technology (BACT) per 6NYCRR Part 212.9(b), unless the uncontrolled emissions, also known as the emission rate potential, are less than 1.0 pound an hour, then the degree of air cleaning required in table 2 of 6NYCRR Part 212.9(b) shall be specified by the commissioner (per footnote **).

3.) The grinding room general air dust control system was emission tested in May/June 2013. The grinding room general air dust control system was 92.2% efficient. The emission rate was 0.04 pounds per hour. The potential emissions before any emission controls, the emission rate potential, averaged 0.56 pounds per hour which is less than 1.0 an hour. Since the emission rate potential is less than 1.0 pound an hour, the degree of air cleaning required in table 2 of 6NYCRR Part 212.9(b) shall be specified by the commissioner (per footnote **). The 92.2%

control efficiency for emission point 1 was deemed acceptable. During the test, the general grinding room air included dust from the rotary natural gas drier, both grinding and screening lines, dust from conveying material, and emissions from the dust control devices that exhausted within the room.

4.) The emission control efficiency of the above emission point shall be determined by stack testing for particulates once every five years, or sooner if required by the department.
a. The facility shall submit a compliance emission test protocol to the Department within 30 days of the scheduled testing date.
b. A compliance emission test must be conducted within 60 days of written protocol approval by the Department.
c. An emission test report shall be submitted to the Department for review and approval within 30 days of the emission testing.

Lower Permit Limit: 99 percent
Reference Test Method: EPA Method 5 in 40 CFR 60 App A
Monitoring Frequency: Once every five years
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 10: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212.4

Item 10.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: 0-0000A

Emission Unit: 0-0000B

Item 10.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Air Emission Control Equipment Maintenance and Monitoring Plan
(Revised June 2015, Item 21 in Schedule A of the Order)

1.) The “Maintenance & Monitoring Plan, Air Emission

Control Equipment, Revised June 2015" ("Plan") shall be followed. Any department approved revisions of the Plan will supersede earlier versions. A copy of the Plan is part of this Air State Facility Permit application package.

2.) Section I - Equipment contained in the Plan:
a. The Main Baghouse for the Grinding Department exhausts the general grinding room air to provide negative pressure in the grinding room. This is emission point 00001 in emission unit 0000A.
b. The Inside Fan exhausts general grinding room air into the bead shop when the east overhead truck door in the grinding room opens to provide negative pressure in the grinding room. The fan is in the northeast corner of the bead shop. This does not exhaust outside.
c. The Rotary Drier Baghouse and Filter Box exhaust the grit rotary drier outside. This is emission point 00004 in emission unit 0000A.
d. The two Bead Furnaces make the glass beads. Each furnace exhausts outside through a dropbox, cyclone, and panel filter box. Furnace 1 (east) exhausts to emission point 00002 and furnace 2 (west) exhausts to emission point 00003. These two emission points are identified in emission unit 0000B.

3.) Section II - Monitoring Procedures.
a. Main Baghouse for the Grinding Department - These monitoring procedures are detailed in separate permit conditions.
i. Inspect daily for visible emissions.
ii. Check the pressure differential across the baghouse daily.
iii. Inspect the interior of the baghouse weekly to determine if there are any visual indications of bag leakage or other evidence of particulates not being collected.
iv. Conduct a monthly fluorescent dye test to verify filter bag and bag house integrity.

b. Inside Fan
i. Inspect for visible emissions on a weekly basis while the fan is operating.
ii. Measure the inward velocity at the overhead truck door when it is open on a weekly basis. This monitoring procedure is detailed in a separate permit condition.
iii. Evaluate the direction of airflow whenever the overhead truck door is open using the streamers attached to the door. This monitoring procedure is detailed in a separate permit condition.

c. Rotary Drier Baghouse/Filter Box - These monitoring procedures are detailed in separate permit conditions.
i. Inspect daily for visible emissions.
ii. Check the pressure differential across the baghouse daily and filter box daily.
iii. Check the integrity of the wire backer in the filter box each time filters are changed.

d. Bead Furnaces – Furnace 1 and Furnace 2
i. Drop Box – Inspect the airflow vanes every three months for excessive wear.
ii. Cyclone – Inspect every three months for perforations and leaks. Repair leaks.
iii. Panel Filters –
1. Observe emissions daily for opacity. This monitoring procedure is detailed in a separate permit condition.
2. Monitor regularly the frequency of the variable frequency drive controlling the induced draft fan motor. The motor frequency is an indicator of the air flow and pressure drop across the furnace itself, not the filters. The fan frequency with a clean filter is about 40 hertz. As the filters plug up the frequency increases to 60 hertz, the maximum. At this point the pre-filters are cleaned or replaced, but if that is not satisfactory then the main polish filters are replaced.
3. Daily check the pressure differential across the panel filters. This monitoring procedure is detailed in a separate permit condition.
iv. Records of the above readings shall be kept in the operating log book.

4.) Section III - Maintenance Procedures
a. Main Baghouse for the Grinding Department –
i. If any inspection of the baghouse finds that it is not functioning properly it will be shut down and a more detailed inspection performed to identify the source of the problem.
ii. After the problem is corrected a fluorescent dye test will be performed to verify that the repairs were successful.

b. Inside Fan
i. Panel filters will be replaced as needed based on inspection of the filters, inward velocity measurements, direction of air flow indicator streamers on the east overhead door, and visual inspection of the exhaust. Visual inspection looks for excessive buildup of collected contaminants on the filter face.

c. Rotary Drier Baghouse/Filter Box
i. If the pressure drop across the filter box

exceed 4 inches of water column the filters will be replaced.
ii. The baghouse is shaken and emptied every shift.
iii. If the pressure drop across the baghouse reaches 5 inches of water column, the operations will be paused, and the baghouse will be shaken and emptied.

d. Bead Furnaces
i. Drop Box – If an inspection of the airflow vanes finds them no longer effective they will be replaced.
ii. Cyclone – If an inspection finds a perforation or leak a patch will be used to seal it.
iii. Panel Filters –
1. Pre-filters are cleaned or removed weekly or as-needed.
2. Polish filters will be replaced when:
a. The pressure drop across the filters exceeds 3.0 inches of water column.
b. The variable frequency drive for the induce fan reaches 60 hertz and adequate furnace draft cannot be maintained.

e. Maintenance Records
i. Records of maintenance activities are maintained in the operating log.
ii. Shutdown of operating equipment for maintenance purposes is noted in the log, along with the reason for the shutdown as well as details of what was repaired prior to startup.

5.) The records required by this condition must be made available for inspection upon request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 11: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212.4

Item 11.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: 0-0000A Emission Point: 00001

Emission Unit: 0-0000A Emission Point: 00004

Emission Unit: 0-0000B Emission Point: 00002

Emission Unit: 0-0000B Emission Point: 00003

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

Item 11.2:
Compliance Demonstration shall include the following monitoring:

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

Daily opacity observations are used to evaluate the particulate control efficiency of the particulate control equipment. If visible emissions are observed and cannot be eliminated, then a particulate control efficiency test will be conducted to determine compliance.

1.) The emission of particulates associated with the production of abrasive glass grit, glass beads and black abrasive grit have been a fallout problem in the nearby residential community. Therefore under 6NYCRR Part 212.9(a), process emissions of these air contaminants from the following emission points have been assigned an Environmental Rating of A:
Emission point 00001 – general ventilation system for the grinding room
Emission point 00002 – glass bead furnace #1 (east)
Emission point 00003 – glass bead furnace #2 (west)
Emission point 00004 – natural gas fired rotary drier

2.) Particulate air contaminants that have an Environmental Rating of A are required to have emission control efficiency of 99% or greater, or best available control technology (BACT) per 6NYCRR Part 212.9(b). However, if the uncontrolled emissions are less than 1.0 pound an hour then the degree of air cleaning shall be specified by the commissioner (per footnote ** in 212.9(b)).

3.) Daily visible emissions observations shall be conducted at the above emission points.
a. Each observation shall be a minimum of 3 consecutive minutes.
b. The visible emissions observation shall be made from a position where the sun is at the observers back and which discounts the presence of condensed water vapor in the plume.

4.) The results of the daily observation shall be recorded in a log book which is kept on site and made available to the Department upon request during normal business hours. When an inspection is not made because the source is not operating this shall be noted in the log.

5.) In the event visible emissions are observed during any daily observation, the facility shall conduct a detailed inspection of the process and emission control equipment, and undertake corrective action so that visible emissions are no longer present in the exhaust plume. All such events shall be reported to the Department in writing (letter, fax, e-mail) within two (2) working days of occurrence, including the corrective action taken and the ability of the corrective action to eliminate visible emissions. A copy of this notification shall be kept with the log book.

6.) In the event the corrective action fails to eliminate visible emissions the facility shall conduct an emission control efficiency test to determine compliance with paragraph 2 of this condition. The facility shall submit a compliance emission test protocol to the Department within 30 days of the initial visible emissions observation for review and approval. A compliance emission test must be conducted within 60 days of written protocol approval by the Department. An emission test report shall be submitted to the Department for review and approval within 30 days of the emission testing.

Parameter Monitored: OPACITY
Upper Permit Limit: 1 percent
Reference Test Method: EPA Method 9 in 40 CFR 60 App A
Monitoring Frequency: DAILY
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 12: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212.4

Item 12.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: 0-0000A Emission Point: 00004

Emission Unit: 0-0000B Emission Point: 00002

Emission Unit: 0-0000B Emission Point: 00003

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

Item 12.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:

Stack Test Requirement
99% Control Efficiency for Particulate Emissions

1.) The emissions of particulates associated with the production of abrasive glass grit, glass beads and black abrasive grit have been a fallout problem in the nearby residential community. Therefore under 6NYCRR Part 212.9(a), process emissions of particulate emissions from the following emission points have been assigned an Environmental Rating of A:

Emission point 00002 – glass bead furnace #1 (east)
Emission point 00003 – glass bead furnace #2 (west)
Emission point 00004 – natural gas fired rotary drier

2.) Particulate air contaminants that have an Environmental Rating of A are required to have emission control efficiency of 99% or greater, or best available control technology (BACT) per 6NYCRR Part 212.9(b).

3.) Once every five years, or sooner if required by the department, the emission control efficiency of the above emission points shall be determined by stack testing for particulates.
a. The facility shall submit a compliance emission test protocol to the Department within 30 days of the scheduled testing date.
b. A compliance emission test must be conducted within 60 days of written protocol approval by the Department.
c. An emission test report shall be submitted to the Department for review and approval within 30 days of the emission testing.

Lower Permit Limit: 99 percent
Reference Test Method: EPA Method 5 in 40 CFR 60 App A
Monitoring Frequency: Once every five years
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 13: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212.6 (a)

Item 13.1:
The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: 0-0000A Emission Point: 00001

Emission Unit: 0-0000A Emission Point: 00004

Emission Unit: 0-0000B Emission Point: 00002

Emission Unit: 0-0000B Emission Point: 00003

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

Item 13.2:
Compliance Demonstration shall include the following monitoring:

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

1.) 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.

2.) In order to monitor the proper operation of the process and particulate control device, the facility shall conduct daily visible emissions observations during daylight hours. Each observation shall be a minimum of 3 consecutive minutes.

3.) The visible emissions observation shall be made from a position where the sun is at the observers back and allows the observer to discount the presence of condensed water vapor in the plume.

4.) The results of the daily observation shall be recorded in a log book which is kept on site and made available to the Department upon request during normal business hours. When an inspection is not made because the source is not operating the log shall reflect that this.

5.) In the event visible emissions are observed above the normal level (this may be zero percent opacity for many or all emission points) during any daily observation, the facility shall conduct an interior inspection of the process and particulate control device, and undertake corrective action so that visible emissions return to

their normal level. All such events shall be reported to the Department in writing within two (2) working days of the occurrence, including the corrective action taken and the success of the corrective action to eliminate visible emissions. A copy of this notification shall be kept with the log book.

6.) In the event the corrective action fails to eliminate visible emissions, the facility shall conduct an EPA Method 9 opacity observation by a certified observer within 3 days. The results of the Method 9 observation shall be submitted to the Department within a week of making the observations.

Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Reference Test Method: EPA Method 9
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

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

Condition 14: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212.4

Item 14.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A

Item 14.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Inward Air Flow to Grinding Room

1.) The grinding room must be kept under negative pressure so fugitive particulate emissions are not released to the atmosphere. The air flow at any opening to the outdoors must be inward.

2.) Daily, the direction of air flow at the following locations will be determined, whether they are open or

closed. (Even when closed, these doors are not sealed tightly.)
a. Man door in the southwest corner of the grinding room near the clear glass grinder.
b. Overhead door at the east side of the grinding room.
c. Fork truck door at the east side of the grinding room.
d. Man door adjacent to the overhead door at the east side of the grinding room.
e. Any other openings that are identified.
Indicator tape along the bottom of the overhead door shall be in place and used. Indicator tape around the man doors may be used. Indicator tape on a stick should be used to determine air flow at the man doors, at the opening of the overhead door, and at any other identified openings.

3.) The direction of air flow must be recorded in a log which must be made available for review by the department upon request.

4.) The logs must be submitted to the department upon request.

Monitoring Frequency: DAILY
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 15: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212.4

Item 15.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A

Item 15.2:
Compliance Demonstration shall include the following monitoring:

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

Negative Pressure in Grinding Room
Item 18 in Schedule A of the Order

1.) The grinding room must be kept under negative pressure so fugitive particulate emissions are not released to the atmosphere. The inward velocity at any opening to the outdoors must be at least 200 feet per minute (fpm).

Alternatively, a pressure drop of 0.013 mm Hg (0.007 in. H2O) corresponds to a velocity of 200 fpm, per EPA Method 204 in Appendix M of 40 CFR 51.

2.) Weekly, the inward velocity must be measured at the following locations, whether they are open or closed. (Even when closed these doors are not sealed tightly.)
a. Man door in the southwest corner of the grinding room near the clear glass grinder.
b. Overhead door on the east side of the grinding room.
c. Forktruck door on the east side of the grindig room.
d. Man door on the east side of the grinding room.
d. Any other openings that are identified.

3.) The velocities must be recorded in a log which must be made available for review by the department upon request.

4.) The logs must be submitted to the department upon request.

Parameter Monitored: VELOCITY
Lower Permit Limit: 200 feet per minute
Reference Test Method: EPA Method 204 in Appendix M of 40 CFR Part 51
Monitoring Frequency: WEEKLY
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 16: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 200.7

Item 16.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A Emission Point: 00001

Item 16.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Grinding Room Baghouse – Weekly Internal Inspections

1.) The interior of the grinding room general ventilation baghouse will be inspected weekly for leakage. Any leaks

shall be repaired before the baghouse is returned to service.

2.) The inspection and corrective actions shall be recorded in a log.

3.) The logs shall be made available for review upon department request.

4.) The information shall be submitted upon request of the department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 17: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 200.7

Item 17.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A Emission Point: 00001

Item 17.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Fluorescent dye test on the grinding room general ventilation baghouse

1.) A monthly fluorescent dye test will be conducted on the grinding room general ventilation baghouse for leakage. Any leaks shall be repaired before the baghouse is returned to service. A follow up fluorescent dye test will be conducted to verify repairs are satisfactory.

2.) The inspection and corrective actions shall be recorded in a log.

3.) The logs shall be made available for review upon department request.

4.) The information shall be submitted upon request of the department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 18: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212.4

Item 18.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A Emission Point: 00001

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

Item 18.2:
Compliance Demonstration shall include the following monitoring:

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

Grit Room General Ventilation Baghouse
Pressure Differential Monitoring

1.) The pressure differential across the grit room general ventilation baghouse shall be between 1.0 and 5.0 inches of water column.

2.)The pressure differential across the baghouse shall be checked daily and recorded.

3.) If the pressure differential is outside this normal range then the process and emission control equipment shall be inspected and corrective actions taken. The corrective actions shall be recorded in the inspection log.

4.) Notify the department if corrective actions are not effective within two (2) working days of the pressure differential being out of the acceptable range.

Parameter Monitored: PRESSURE DROP
Lower Permit Limit: 1.0 inches of water
Upper Permit Limit: 5.0 inches of water
Monitoring Frequency: DAILY
Averaging Method: RANGE - NOT TO FALL OUTSIDE OF STATED RANGE AT ANY TIME
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 19: Compliance Demonstration

Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212.4

Item 19.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A Emission Point: 00004

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

Item 19.2:
Compliance Demonstration shall include the following monitoring:

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

Rotary Drier (emission point 00004) - Baghouse Pressure Differential Monitoring

1.) The pressure differential across the baghouse on the natural gas fired rotary drier shall be between 1 and 5 inches of water column.

2.) The pressure differential across the baghouse shall be checked daily and recorded.

3.) If the pressure differential is outside this normal range then the process and emission control equipment shall be inspected and corrective actions taken. The corrective actions shall be recorded in the inspection log.

4.) Notify the department if corrective actions are not effective within two (2) working days of the pressure differential being out of the acceptable range.

Parameter Monitored: PRESSURE DROP
Lower Permit Limit: 1.0 inches of water
Upper Permit Limit: 5.0 inches of water
Monitoring Frequency: DAILY
Averaging Method: RANGE - NOT TO FALL OUTSIDE OF STATED RANGE AT ANY TIME
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 20: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212.4

Item 20.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A Emission Point: 00004

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

Item 20.2:
Compliance Demonstration shall include the following monitoring:

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

Rotary Drier (emission point 00004) - Panel Filter Pressure Differential Monitoring

1.) The pressure differential across the natural gas rotary drier filter box shall be between 0.2 and 4.0 inches of water column.

2.)The pressure differential across the filter box shall be checked daily and recorded.

3.) If the pressure differential is outside this normal range then the process and emission control equipment shall be inspected and corrective actions taken. The corrective actions shall be recorded in the inspection log.

4.) Notify the department if corrective actions are not effective within two (2) days of the pressure differential being out of the acceptable range.

Parameter Monitored: PRESSURE DROP
Lower Permit Limit: 0.2 inches of water
Upper Permit Limit: 4.0 inches of water
Monitoring Frequency: DAILY
Averaging Method: RANGE - NOT TO FALL OUTSIDE OF STATED RANGE AT ANY TIME
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 21: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 200.7

Item 21.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A Emission Point: 00004
Process: 003

Item 21.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Rotary Drier Panel Filters - Wire Backer

1.) The wire backer that supports the panel filters from collapsing shall be inspected each time the filters are replaced.

2.) The integrity of the wire backer shall be noted in the inspection logs. If repairs are needed or made they shall be recorded in the log.

3.) The inspection logs shall be made available and/or submitted for Department review upon request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 22: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 200.7

Item 22.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000B

Item 22.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Grit Plant Inspection, Operations and Maintenance Plan (6/30/2013 revision)
(Item 20 in Schedule A of the Order)

1.) Grit Operators must check the equipment outside at the beginning of each shift. If there are visible emissions the process must be shutdown immediately and maintenance must be notified to perform corrective action. Records of the inspection must be documented in the operations log.

2.) Maintenance staff must check the Building Ventilation Baghouse on a weekly basis to verify proper operation. Additionally, fluorescent dye test utilizing a black light must be performed monthly. The result of the dye test must be recorded in the operations log.

3.) Ongoing Operations – Operations must assure that all building openings are kept closed except when personnel or equipment is entering or exiting the build. The Building Ventilation Baghouse and system must be operational prior to commencement of any processing operations. Additionally, tape affixed to the bottom of the main overhead door must be observed to verify that airflow is into the building. Should visual observations show that air flow is not into the building, then the door shall be shut immediately and maintenance contacted to correct the problem. Any such observation and corrective action taken must be documented in the operations log.

4.) Preventive maintenance in the grit operation consists of weekly greasing and inspection of all blowers, conveyors and other rotating equipment that could fail if insufficient lubrication occurs. Additionally, if any visible emissions are observed from the dust collectors that vent internally, maintenance will shut the collector and associated process down, inspect the dust collector and make appropriate adjustments or replacement of filters.

5.) All records and logs must be made available to department upon request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 23: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 200.7

Item 23.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000B

Item 23.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Bead Furnace Inspection, Operations and Maintenance Plan
(6/30/2013 revision)
(Item 20 in Schedule A of the Order)

1.) Procedures to be performed on each bead furnace shift:
a.) At the beginning of each shift the Furnace Operators must complete a visual inspection of all equipment including equipment outside and on the upper level. If any leaks are detected the operator must repair the leak and clean up any material that has leaked. Documentation of the leak and associated repair must be entered in the operating log.
b.) If the leaks require more attention the operator must immediately notify the maintenance department to repair the leaks.
c.) If the leak is inside and not causing emissions to the exterior of the building, operations may continue.
d.) If the leak is outside the leak must be repaired immediately.
e.) If the leak cannot be repaired immediately the process must be shutdown until repairs can be completed.

2.) Visual inspections are conducted during the time bead samples are collected and shall include a check of the furnace deck and roof for any signs of leakage or fallout. All observations must be entered in the log book.

3.) Operators are required to do a complete visual check of all equipment at least 2 times per shift to ensure equipment is operating correctly. If the visual check disclosed any operating problems they must be corrected and the corrective measures documented in a log book. All visual checks must be documented in the log book, even if no operating problems are identified.

4.) Gauges are checked and recorded on the furnace production report to insure that filters are performing correctly. When the furnace operating pressures reach a level where there is no more adjustment to make the proper corrections, then the operator must shut down the furnace, let it cool and inspect or replace filters.

5.) Preventive Maintenance Procedures
Preventive Maintenance in the bead plant consists of weekly greasing and inspection of all blowers, conveyors and other rotating equipment that could fail if insufficient lubrication occurs.

6.) All records and logs must be made available to

department upon request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 24: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212.4

Item 24.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000B

Item 24.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Furnace Filter Integrity Check

1.) Within 12 hours of installing primary filters in the furnace filter filter box the integrity of the filters will be evaluated by:
a.) making a visible emission observation, and
b.) determining if particulates are falling out from the emissions. A black surface held under the emissions for a time may be a good indicator of fallout.

2.) Records of these observations will be recorded with the date and time. These records will be made available to the department upon request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 25: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212.4

Item 25.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000B

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

Item 25.2:
Compliance Demonstration shall include the following monitoring:

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

Glass Bead Furnaces - Pressure Differential Monitoring across Filter Boxes

1.) The pressure differential across the filter box of each glass bead furnace shall be between 0.3 and 3.0 inches of water column.

2.) The pressure differential across these filters shall be checked daily and recorded.

3.) If the pressure differential is outside this normal range then the process and emission control equipment shall be inspected and corrective actions taken. The corrective actions shall be recorded in the inspection log.

4.) Notify the department if corrective actions are not effective within two (2) days of the pressure differential being out of the acceptable range.

Parameter Monitored: PRESSURE DROP
Lower Permit Limit: 0.3 inches of water
Upper Permit Limit: 3.0 inches of water
Monitoring Frequency: DAILY
Averaging Method: RANGE-NOT TO FALL OUTSIDE OF STATED RANGE EXCEPT DURING STARTUP/SHUTDOWN
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

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 - 6 NYCRR 201-1.10 (a)**
Where facility owners and/or operators keep records pursuant to compliance with the requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of 6 NYCRR Subpart 201-7, the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Facility owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department.

Item 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 law.

STATE ONLY APPLICABLE REQUIREMENTS
The following conditions are state only enforceable.

Condition 26: **Contaminant List**
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable State Requirement:ECL 19-0301

Item 26.1:
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

Condition 27: Malfunctions and start-up/shutdown activities
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable State Requirement:6 NYCRR 201-1.4

Item 27.1:
(a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.

(b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.

(c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

(d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.

(e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

Condition 28: Emission Unit Definition
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 28.1:
The facility is authorized to perform regulated processes under this permit for:
Emission Unit: 0-0000A
Emission Unit Description:
Grinding and Screening Room

There are two grinding and screening lines. On one line, the colored glass and coal slag are dumped into a hopper outside, conveyed inside to a natural gas rotary drier, passed through screens and crushers, and then bagged or stored in hoppers. The products are either sold or fed to the glass bead furnaces.

The other line is dedicated to clear glass that is screened and crushed, and then bagged or stored in hoppers. Most of the crushed clear glass is fed to the glass bead furnaces.

The general grinding room air is exhausted to atmosphere after it passes through a cyclone and then baghouse. This system helps to keep the grinding room under negative pressure so that dust doesn't escape to atmosphere. This is emission point 00001.

The 10.6 tons per hour natural gas rotary drier uses a 1.5 million Btu per hour burner and exhausts outside through a baghouse and then panel filters. This is emission point 00004.

Building(s): MAIN

Item 28.2:
The facility is authorized to perform regulated processes under this permit for:
Emission Unit: 0-0000B
Emission Unit Description:
Glass Bead Furnaces - two furnaces

This emission unit consists of two natural gas fired furnaces: furnace #1 (east furnace, emission point 00002) and furnace #2 (west furnace, emission point 00003). Only clear ground glass is fed into the furnaces for the production of glass beads. These beads are used in reflective road striping and other industrial uses.

Ground glass is fed to the furnace and heated to the point

where it becomes malleable. The glass then forms beads within the furnace. The bulk of the product is collected and sold. Any glass carried through the furnace is captured by a dropbox, cyclone, then cartridge filters. Any glass that clings to the sides of the furnace and falls out is collected and later crushed for reprocessing.

Building(s): MAIN

Condition 29: Renewal deadlines for state facility permits
Effective between the dates of 07/21/2015 and 07/20/2025

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

Item 29.1:
The owner or operator of a facility having an issued state facility permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Condition 30: Compliance Demonstration
Effective between the dates of 07/21/2015 and 07/20/2025

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

Item 30.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 30.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
Any reports or submissions required by this permit shall be submitted to the Regional Air Pollution Control Engineer (RAPCE) at the following address:

Division of Air Resources
NYS Dept. of Environmental Conservation
Region 9
270 Michigan Ave.
Buffalo, NY 14203

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 31: Visible Emissions Limited
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable State Requirement:6 NYCRR 211.2

Item 31.1:
Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

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

Condition 32: Emission Point Definition By Emission Unit
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 32.1:
The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: 0-0000A

Emission Point: 00001
Height (ft.): 6 Length (in.): 24 Width (in.): 24
NYTMN (km.): 4750.571 NYTME (km.): 232.613 Building: MAIN

Emission Point: 00004
Height (ft.): 18 Diameter (in.): 28
NYTMN (km.): 4750.571 NYTME (km.): 232.613 Building: MAIN

Item 32.2:
The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: 0-0000B

Emission Point: 00002
Height (ft.): 15 Diameter (in.): 28
NYTMN (km.): 4750.571 NYTME (km.): 232.613 Building: MAIN

Emission Point: 00003
Height (ft.): 15 Diameter (in.): 28
NYTMN (km.): 4750.571 NYTME (km.): 232.613 Building: MAIN

Condition 33: Process Definition By Emission Unit
Effective between the dates of 07/21/2015 and 07/20/2025

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 33.1:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 0-0000A
Process: 001 Source Classification Code: 3-05-014-13

Process Description:

Emission Unit A is located within the grinding room, and consists of two process lines. Each line grinds, screens, and package glass material, one line processes clear glass (the west line) and the other processes both colored and clear glass (east line). Emissions from these lines are collected by individual dust control devices and are exhausted back into the grinding room and bead shop.

The air in the grinding room is then ventilated through a cyclone followed by a baghouse before exhausting to the atmosphere to provide negative pressure in the grinding room, emission point 00001.

The line that processes the colored, clear and boiler slag uses a natural gas rotary drier to dry the material before screening and grinding. This is process 003.

Emission Source/Control: 00040 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 00050 - Control
Control Type: SINGLE CYCLONE

Emission Source/Control: 00060 - Process

Item 33.2:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 0-0000A
Process: 003 Source Classification Code: 3-05-035-05
Process Description:

Drying of glass or coal boiler slag using a natural gas fired rotary dryer. The exhaust from the drier goes through a baghouse (Emission Source (ES) 00010) and then through panel filters (ES 00020) before exiting to the atmosphere through emission point 4.

Emission Source/Control: 00010 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 00020 - Control
Control Type: MAT OR PANEL FILTER

Emission Source/Control: 00001 - Process
Design Capacity: 10.6 tons per hour

Item 33.3:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 0-0000B
Process: 002 Source Classification Code: 3-05-014-14
Process Description:

Glass Bead Furnaces - two furnaces

This process consists of two natural gas fired furnaces: furnace #1 (emission source 00080) and furnace #2 (emission source 00090). Only clear ground glass is fed into the furnaces for the production of glass beads. These beads are used in reflective road striping and other industrial uses. Each furnace has a rated heat input of 14 million Btu per hour.

The bulk of the glass beads from the furnace is collected and sold. The remainder of glass in the air stream is captured by a dropbox, cyclone, and then cartridge filters. Any glass that clings to the sides of the furnace and falls out the bottom is collected, crushed and circulated back into the system.

Emission Source/Control: 00081 - Control
Control Type: BAFFLE

Emission Source/Control: 00082 - Control
Control Type: SINGLE CYCLONE

Emission Source/Control: 00083 - Control
Control Type: HIGH EFFICIENCY PARTICULATE AIR FILTER

Emission Source/Control: 00091 - Control
Control Type: BAFFLE

Emission Source/Control: 00092 - Control
Control Type: SINGLE CYCLONE

Emission Source/Control: 00093 - Control
Control Type: HIGH EFFICIENCY PARTICULATE AIR FILTER

Emission Source/Control: 00080 - Process

Emission Source/Control: 00090 - Process