



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 9-5622-00067/00001
Mod 0 Effective Date: 07/21/2015 Expiration Date: 07/20/2025
Mod 1 Effective Date: 04/07/2016 Expiration Date: 07/20/2025
Mod 2 Effective Date: 12/08/2017 Expiration Date: 07/20/2025
Mod 3 Effective Date: 07/24/2018 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 3 of the Air State Facility Permit for Hillcrest Industries, Inc. Hillcrest is in the Village of Attica, Wyoming County and manufactures blasting media and reflective glass beads.

This permit was modified to replace panel filter boxes on glass bead furnace #1, emission point 00002 and glass bead furnace #2, emission point 00003 with baghouses. The baghouses will use the same emission points. The particulate emissions from the furnaces were assigned an Environmental Rating of A, per 6 NYCRR Part 212-1.3. The baghouses are expected to have similar emissions as the panel filters so the previous AERMOD emission modeling was used and predicted that ambient off-site concentrations would not exceed the 24-hour (particulate matter less than 10 microns in diameter) National Ambient Air Quality Standard (NAAQS). The baghouses are required to be stack tested within 180 days to demonstrate compliance with the 99% control efficiency requirement of Part 212-2.



Renewal 1, Modification 2 was for the addition of a baghouse to assist with creating negative pressure in the grinding room and collect emissions from transfer points and dusty areas on both grinding lines. It is designed for 25,000 cfm. With the addition of EP 9, a 6 NYCRR Part 212 (General Processes regulation) evaluation was conducted. AERMOD emission modeling predicts that ambient air off-site air near the facility will not exceed the 24-hour PM-10 (particulate matter less than 10 microns in diameter) National Ambient Air Quality Standard (NAAQS). The existing permit conditions were modified to incorporate this new source. This modification did not trigger the applicability of additional regulations.

The Detailed Facility Description from Ren 1 Mod 0 (July 2015):

The facility utilizes 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 three 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. Rotary Dryer #2 exhausts to the same dust collector (DC #1) and out EP 1. Emission point 00004 exhausts the natural gas fired Rotary Dryer #1 through a baghouse and panel filters. The Blue Baghouse (DC #6) also exhausts the grinding room air and collects emissions from dusty areas on both grinding lines. These three 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 and clear-glass grinders and screeners are collected by one cartridge filter which exhausts back into the grinding room. This is referred to as System #1; 2.) Dust from the clear-glass grinders and screeners are collected by one baghouse that exhausts into the adjacent bead shop. This is referred to as System #2; 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 systems exhaust into the bead shop to maintain the negative pressure that is required in the grinding room.

The three natural gas fired glass bead furnaces make up Emission Unit B. Furnace #1, the east furnace, is emission point 00002, Furnace #2, the center furnace, is emission point 00003, and Furnace #3, the west furnace, is emission point 00008. Sized glass is fed to the furnaces where it is heated to a malleable state and cools to a spherical shape. Furnaces #1 & #2 have drop boxes which collect product that is carried through the furnace. Following the drop box is a cyclone and a filter box with pre-filters and HEPA filters. Similar to furnace 1 & 2, Furnace 3 exhausts to a dropbox, and cyclone, before going to a baghouse. 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 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 (March 2016 revision) and Grit Plant Inspection, Operations and Maintenance Plan (March 2016 revision 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 (September 2017 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 glass bead furnaces #1 and #2 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 was 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 1 was 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.

In May 2017, the dust collector particulate control efficiency was tested on furnace #3, dryer #1 and dryer #2. The results were 99.27% efficiency for Furnace #3 (EP 8), 99.32% for dryer #1 (EP 4), and 9.38% for dryer #2 and grinding room (EP 1). All meet the 99% control efficiency requirement.

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: **MARK F PASSUITE**
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
 - Applications for permit renewals, modifications and transfers
 - 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 1-1: Applications for permit renewals, modifications and transfers
Applicable State Requirement: 6 NYCRR 621.11

Item 1-1.1:

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

Item 1-1.3:

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 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 2-1: Applications for permit renewals, modifications and transfers
Applicable State Requirement: 6 NYCRR 621.11

Item 2-1.1:

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 2-1.2:

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

Item 2-1.3

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

New York State Department of Environmental Conservation

Permit ID: 9-5622-00067/00001

Facility DEC ID: 9562200067



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

Mod 0 Permit Effective Date: 07/21/2015

Permit Expiration Date: 07/20/2025

Mod 1 Permit Effective Date: 04/07/2016

Permit Expiration Date: 07/20/2025

Mod 2 Permit Effective Date: 12/08/2017

Permit Expiration Date: 07/20/2025

Mod 3 Permit Effective Date: 07/24/2018

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
- 3-1 6 NYCRR 201-2.1 (b): Compliance Demonstration
- 6 6 NYCRR 211.1: Air pollution prohibited
- 7 6 NYCRR 211.1: Compliance Demonstration
- 8 6 NYCRR 211.1: Compliance Demonstration
- 1-1 6 NYCRR 212-1.6 (a): Compliance Demonstration
- 2-2 6 NYCRR 212-2.3 (a): Compliance Demonstration
- 2-3 6 NYCRR 212-2.3 (a): Compliance Demonstration

Emission Unit Level

EU=0-0000A

- 1-6 6 NYCRR 200.7: Compliance Demonstration
- 1-8 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 1-9 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 1-10 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 1-11 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 1-12 6 NYCRR 212-2.1 (b): Compliance Demonstration

EU=0-0000A,EP=00001

- 1-13 6 NYCRR 200.7: Compliance Demonstration
- 1-14 6 NYCRR 200.7: Compliance Demonstration

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

- 1-15 6 NYCRR 200.7: Compliance Demonstration

EU=0-0000A,EP=00009

- 2-4 6 NYCRR 200.7: Compliance Demonstration
- 2-5 6 NYCRR 200.7: Compliance Demonstration
- 2-6 6 NYCRR 212-2.1 (b): Compliance Demonstration

EU=0-0000B

- 2-7 6 NYCRR 200.7: Compliance Demonstration
- 1-19 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 1-20 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 1-21 6 NYCRR 212-2.1 (b): Compliance Demonstration

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

- 26 ECL 19-0301: Contaminant List

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- 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: 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 F: 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 G: 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 H: 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 I: 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 J: 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 K: 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 L: 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

New York State Department of Environmental Conservation

Permit ID: 9-5622-00067/00001

Facility DEC ID: 9562200067



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:

New York State Department of Environmental Conservation

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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 3-1: Compliance Demonstration
Effective between the dates of 07/24/2018 and 07/20/2025

Applicable Federal Requirement: 6 NYCRR 201-2.1 (b)

Item 3-1.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 3-1.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Air Emissions Control Equipment Maintenance and Monitoring Plan
(Revised June 2018, item 21 in Schedule A of the Order)

- 1.) The "Maintenance & Monitoring Plan, Air Emission Control Equipment, Revised September 2017" ("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.) Outside Baghouse, Dust Collector #1 (DC #1)



The outside baghouse draws on the grinding room to provide negative pressure and collects emissions from Rotary Dryer #2. This is emission point 00001 in emission unit 0000A.

b.) Rotary Dryer #1 Baghouse (DC #2) and Filter box

These dust collectors exhaust Rotary Dryer #1 outside. This is emission point 00004 in the emission unit 0000A.

c.) Blue Outside Baghouse (DC #6)

This baghouse exhausts ambient air from the grinding room and collects emissions at transfer points on both the east and west grinding lines. This is emission point 9 in emission unit 0000A.

d.) Inside Fan

This fan exhausts the 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.

e.) Bead Furnace #1 and #2 (updated June 2018):

These two furnaces each exhaust outside through a drop box, cyclone, and high temperature baghouse dust collectors. Furnace 1 (East) exhausts to emission point 00002 and Furnace 2 (Center) exhaust to emission point 00003. These two emission points are identified in emission unit 0000B.

f.) Bead Furnace #3

Similar to furnaces 1 & 2, furnace #3 exhaust outside through a drop box, cyclone, and baghouse dust collector. Furnace 3 (West) is emission point 00008 in emission unit 0000B.

3.) Section II - Monitoring Procedures.

a.) Outside Dust Collector (DC #1) – These monitoring procedures are detailed in a separate permit condition.

i. Inspect daily for visible emissions.

ii. Check the pressure differential across the baghouse daily. This is a separate permit condition.

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.) Rotary Dryer #1 Baghouse (DC #2)/Filter Box



- i. Inspect daily for visible emissions.
- ii. Check pressure differential across the baghouse daily and filter box daily.

c.) Blue Baghouse (DC #6)

- i. Inspect daily for visible emissions.
- ii. Check the pressure differential across the baghouse daily. This is a separate permit condition.
- 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.

d.) Inside Fan

- i. Inspect for visible emissions on a weekly basis while 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 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.

e.) Bead Furnaces 1 and 2 (updated June 2018)

- 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. Check daily for plugging.
- iii. Baghouses –
 - 1. Observe emissions daily for opacity. This monitoring procedure is detailed in a separate permit condition.
 - 2. Check the pressure differential across the baghouse daily. This monitoring procedure is detailed in a separate permit condition.
- iv. Records of the above readings shall be kept in the operating log book.

f.) Bead Furnace 3

- 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. Check daily for plugging.

iii. Baghouse-

- 1. Observe emissions daily for opacity. This



monitoring procedure is detailed in a separate permit condition.

2. Check the pressure differential across the baghouse daily. 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.) Outside Dust Collector (DC #1)

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 Dryer #1 Baghouse (DC #2)/Filter Box

i. If the pressure drop across the filters exceed 4 inches of water column they 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.

iv. Check the integrity of the wire backer in the filter box each time filters are changed.

d.) Blue Baghouse (DC #6)

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.

e.) Bead Furnaces 1 and 2

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 closed.



iii. Baghouses –

1. 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.

2. After the problem is corrected a fluorescent dye test will be performed to verify that the repairs were successful.

f.) Bead Furnace 3

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. Baghouse –

1. 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.

2. After the problem is corrected a fluorescent dye test will be performed to verify that the repairs were successful.

g.) 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 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:

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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 1-1: Compliance Demonstration
Effective between the dates of 04/07/2016 and 07/20/2025

Applicable Federal Requirement: 6 NYCRR 212-1.6 (a)

Item 1-1.1:

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

Emission Unit: 0-0000A

Emission Unit: 0-0000B

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

Item 1-1.2:

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

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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 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

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

Condition 2-2: Compliance Demonstration
Effective between the dates of 12/08/2017 and 07/20/2025

Applicable Federal Requirement: 6 NYCRR 212-2.3 (a)



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Item 2-2.1:

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

Emission Unit: 0-0000A Emission Point: 00009

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

Item 2-2.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

INITIAL COMPLIANCE STACK TESTING

- 1.) The particulate emissions from following emission points must be controlled by at least 99%. The particulate emissions have an Environmental Rating of 'A'.
EP 00009 - Grinding room Blue Baghouse dust collector (DC #6)
- 2.) An initial particulate emission compliance test must be conducted within 180 days of the source commencing operation.
- 3.) An emission testing protocol must be submitted to the Buffalo office for review and approval at least 30 days before testing is scheduled. The emission testing report shall be submitted within 45 days of testing.

Parameter Monitored: PARTICULATES
 Lower Permit Limit: 99 percent
 Reference Test Method: 40 CFR 60, App A, Method 5
 Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
 Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED
 Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 2-3: Compliance Demonstration
Effective between the dates of 12/08/2017 and 07/20/2025

Applicable Federal Requirement: 6 NYCRR 212-2.3 (a)

Replaces Condition(s) 1-5

Item 2-3.1:

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

Emission Unit: 0-0000A Emission Point: 00001

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Emission Unit: 0-0000A Emission Point: 00004

Emission Unit: 0-0000A Emission Point: 00009

Emission Unit: 0-0000B Emission Point: 00002

Emission Unit: 0-0000B Emission Point: 00003

Emission Unit: 0-0000B Emission Point: 00008

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

Item 2-3.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Stack Test Requirement (5 years)
99% Control Efficiency for Particulate
Emissions

1.) The emissions of particulates associated with the production of abrasive glass grit and glass beads have been a fallout problem in the nearby residential community. Therefore under 6NYCRR Part 212-1.3, process emissions of these air contaminants from the following emission points have been assigned an Environmental Rating of A:

- Emission point 00001 - natural gas fired rotary dryer #2
- Emission point 00002 – glass bead furnace #1 (east)
- Emission point 00003 – glass bead furnace #2 (center)
- Emission point 00004 – natural gas fired rotary dryer #1
- Emission Point 00008 – glass bead furnace #3 (west)
- Emission Point 00009 - Blue Baghouse (grinding room)

2.) Particulate air contaminants that have an Environmental Rating of A are required to have emission control efficiency of 99% or greater per 6NYCRR Part 212-2.3(a).

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



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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.

Parameter Monitored: PARTICULATES

Lower Permit Limit: 99 percent

Reference Test Method: EPA Method 5 in 40 CFR 6 App A

Monitoring Frequency: Once every five years

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

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

Condition 1-6: Compliance Demonstration

Effective between the dates of 04/07/2016 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 200.7

Item 1-6.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A

Item 1-6.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Grit Plant Inspection, Operations and Maintenance Plan
(March 2016 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 (DC #1) 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 1-8: Compliance Demonstration
Effective between the dates of 04/07/2016 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212-2.1 (b)

Item 1-8.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 1-8.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:



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Rotary Dryer #1 (emission point 00004) - Panel Filter
Pressure Differential Monitoring

- 1.) The pressure differential across the baghouse on the natural gas fired rotary drier shall be between 0.2 and 4.0 inches of water column.
- 2.) The pressure differential across the 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) working 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 1-9: Compliance Demonstration
Effective between the dates of 04/07/2016 and 07/20/2025

Applicable Federal Requirement: 6 NYCRR 212-2.1 (b)

Item 1-9.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 1-9.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Rotary Dryer #1 (emission point 00004) - Baghouse
Pressure Differential Monitoring

- 1.) The pressure differential across the baghouse on the natural gas fired rotary drier shall be between 1.0 and

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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 1-10: Compliance Demonstration

Effective between the dates of 04/07/2016 and 07/20/2025

Applicable Federal Requirement: 6 NYCRR 212-2.1 (b)

Item 1-10.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 1-10.2:

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.)

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- 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 1-11: Compliance Demonstration
Effective between the dates of 04/07/2016 and 07/20/2025

Applicable Federal Requirement: 6 NYCRR 212-2.1 (b)

Item 1-11.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 1-11.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Grit Room General Ventilation & Rotary Dryer #2 Dust
Collector - 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.

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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 1-12: Compliance Demonstration

Effective between the dates of 04/07/2016 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212-2.1 (b)

Item 1-12.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 1-12.2:

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 to prevent the release of fugitive particulate emissions to the atmosphere. Therefore the inward velocity at any opening to the outdoors must be at least 200 feet per minute. 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.

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- 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 room near the clear glass grinder.
 - b. Overhead door at the east side of the room.
 - c. Forktruck door on the east side of the grinding room
 - d. Man door on the grinding room
 - e. Any other opening 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 Appdix M of 40 CFR Part 51

Monitoring Frequency: WEEKLY

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 1-13: Compliance Demonstration
Effective between the dates of 04/07/2016 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 200.7

Replaces Condition(s) 17

Item 1-13.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A

Emission Point: 00001

Item 1-13.2:

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 (DC #1) 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 1-14: Compliance Demonstration
Effective between the dates of 04/07/2016 and 07/20/2025

Applicable Federal Requirement: 6 NYCRR 200.7

Replaces Condition(s) 16

Item 1-14.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A

Emission Point: 00001

Item 1-14.2:

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



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Condition 1-15: Compliance Demonstration

Effective between the dates of 04/07/2016 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 200.7

Replaces Condition(s) 21

Item 1-15.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A

Emission Point: 00004

Process: 003

Item 1-15.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Rotary Drier #1 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 2-4: Compliance Demonstration

Effective between the dates of 12/08/2017 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 200.7

Item 2-4.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A

Emission Point: 00009

Item 2-4.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Blue Baghouse, DC #6 – Weekly Internal



Inspections

- 1.) The interior of the 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 2-5: Compliance Demonstration
Effective between the dates of 12/08/2017 and 07/20/2025

Applicable Federal Requirement: 6 NYCRR 200.7

Item 2-5.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A

Emission Point: 00009

Item 2-5.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Fluorescent dye test Blue Baghouse DC #6

- 1.) A monthly fluorescent dye test will be conducted on the baghouse (DC #6) 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.



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Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 2-6: Compliance Demonstration
Effective between the dates of 12/08/2017 and 07/20/2025

Applicable Federal Requirement: 6 NYCRR 212-2.1 (b)

Item 2-6.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000A Emission Point: 00009

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

Item 2-6.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Pressure Differential Monitoring - DC #6 (Blue Baghouse)
Grit Room General Ventilation & Rotary Dryer #2

- 1.) The pressure differential across the Blue 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 2-7: Compliance Demonstration
Effective between the dates of 12/08/2017 and 07/20/2025

Applicable Federal Requirement: 6 NYCRR 200.7

Replaces Condition(s) 1-16

Item 2-7.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000B

Item 2-7.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Bead Furnace Inspection, Operations and Maintenance Plan
(March 2016 revision)

Item 20 in 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, then the leak must be repaired immediately.

e.) If the leak cannot be repaired immediately, then the process must be shutdown until repairs can be completed.

2.) Visual inspections are conducted during the time bead samples are collected (for production purposes) 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.) Pressure differentials are checked and recorded on the furnace operators log to insure that filtration units 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 the filtration unit. For furnaces #1 & #2 this may involve cleaning pre-filters or replacing final filters. For furnace #3, this involves inspecting automated bag cleaning system.

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 1-19: Compliance Demonstration
Effective between the dates of 04/07/2016 and 07/20/2025

Applicable Federal Requirement: 6 NYCRR 212-2.1 (b)

Item 1-19.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000B

Item 1-19.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Furnace #1 & #2 Filter Integrity Check

1.) Within 12 hours of installing primary filters in the furnace's 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

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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 1-20: Compliance Demonstration
Effective between the dates of 04/07/2016 and 07/20/2025

Applicable Federal Requirement:6 NYCRR 212-2.1 (b)

Item 1-20.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000B

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 1-20.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Glass Bead Furnace #3 - Baghouse Pressure Differential Monitoring

- 1.) The pressure differential across Furnace #3 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) 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 EXCEPT DURING STARTUP/SHUTDOWN

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Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 1-21: Compliance Demonstration

Effective between the dates of 04/07/2016 and 07/20/2025

Applicable Federal Requirement: 6 NYCRR 212-2.1 (b)

Item 1-21.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-0000B

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 1-21.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

Glass Bead Furnaces #1 and #2 - Pressure Differential
Monitoring across Filter Boxes

- 1.) The pressure differential across the filter box of each glass bead furnace #1 and #2 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 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: Emergency Defense - 6 NYCRR 201-1.5

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

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

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

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

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

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

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

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

Item B: Public Access to Recordkeeping for 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 C: 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:



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(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(From Mod 3):

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

Emission Unit: 0-0000B

Emission Unit Description:

Glass Bead Furnaces - three furnaces

This emission unit 0000B consists of three natural gas fired furnaces: furnace #1 (east furnace, emission point 00002), furnace #2 (center furnace, emission point 00003) and furnace #3 (west furnace, emission point 00008). 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, and then a final filter before air is exhausted to the atmosphere. Any glass that clings to the sides of the furnace and falls out is collected and later crushed for reprocessing.

Furnaces #1 and #2 utilize high temperature baghouses. Furnace #3 utilizes a baghouse that brings in extra ambient air to cool the exhaust to the baghouse.

Building(s): MAIN

Item 28.2(From Mod 2):

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, System #1 and System #2. Both systems have hoppers outside that feed colored and clear glass into natural gas fired rotary dryers, which then passes through screeners and crushers before being bagged or stored in hoppers. The products are either sold or fed to the glass bead furnaces.

System #1 uses Rotary Dryer #1 and is located inside the building. The 18 ton/hour natural gas rotary dryer uses a 1.5 million Btu/hour burner and exhaust outside through a baghouse and then panel filters. This is emission point 00004.

System #2 uses Rotary Dryer #2 which is located outside the building, however the discharge end of the drum is inside where the majority of the air is being drawn from. This is a 18 ton/hour natural gas rotary dryer with a 1.5 million Btu/hour burner. Rotary Dryer #2 utilizes the "gray baghouse" (DC #1), EP 00001. This dust collector also brings in fugitive emissions from the grinding room via a diverter for controlling draft to Dryer #2.

The grinding room's general air is vented through a cyclone and baghouse prior to exiting to atmosphere. This dust collection system helps to keep the grinding room under negative pressure so that fugitive dust from the grinding room does not escape into the atmosphere. This dust collector also has lines picking up dust from equipment on both grinding lines. This is the "Blue

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Baghouse”, DC #6 and emission point 00009.

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(From Mod 3):

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.): 4750.57 NYTME (km.): 232.595 Building: MAIN

Emission Point: 00003

Height (ft.): 15 Diameter (in.): 28
NYTMN (km.): 4750.569 NYTME (km.): 232.589 Building: MAIN

Item 32.2(From Mod 2):

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.): 32 Width (in.): 23
NYTMN (km.): 4750.568 NYTME (km.): 232.618 Building: MAIN

Emission Point: 00004

Height (ft.): 18 Diameter (in.): 28
NYTMN (km.): 4750.584 NYTME (km.): 232.612 Building: MAIN

Emission Point: 00009

Height (ft.): 18 Diameter (in.): 36
NYTMN (km.): 4750.56 NYTME (km.): 232.631 Building: MAIN

Item 32.3(From Mod 2):

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

Emission Unit: 0-0000B

Emission Point: 00008

Height (ft.): 15 Diameter (in.): 28
NYTMN (km.): 4750.568 NYTME (km.): 232.582 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(From Mod 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 – three furnaces

This process consists of three natural gas fired furnaces: furnace #1 (emission source 00200) and furnace #2 (emission source 00300) and furnace #3 (emission source 00800). 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 final filtration before exhausting to the atmosphere. Any glass that clings to the sides of the furnace and falls out the bottom is collected, crushed and circulated back into the system.

Furnaces #1, #2 and #3 all utilize dedicated baghouses as the final filtration units.

Emission Source/Control: 00201 - Control
Control Type: BAFFLE

Emission Source/Control: 00202 - Control
Control Type: SINGLE CYCLONE

Emission Source/Control: 00204 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 00301 - Control
Control Type: BAFFLE

Emission Source/Control: 00302 - Control
Control Type: SINGLE CYCLONE

Emission Source/Control: 00304 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 00801 - Control
Control Type: BAFFLE

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Emission Source/Control: 00802 - Control
Control Type: SINGLE CYCLONE

Emission Source/Control: 00803 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 00200 - Process

Emission Source/Control: 00300 - Process

Emission Source/Control: 00800 - Process

Item 33.2(From Mod 2):

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:

The purpose of process 001 is to create negative pressure in the grinding room to contain fugitive dust. Emission Unit A is located within the grinding room, and consists of two process lines. Fugitive dust is emitted from both the East and West lines. Each line dries, grinds, screens and packages glass material. The packaging is done at bag filling stations.

System # 1 (East line) contains Rotary Dryer #1 that has its own dust collector (DC#2, EP 4). System #2 (West line) contains Rotary Dryer #2 which exhausts through gray outside baghouse (DC#1, EP 1).

The remainder of emissions from these grinding and screening lines are collected by individual dust control devices (DC #3, #4) and are exhausted back into the grinding room and/or bead shop, not outside. Each processing line generates fugitive emissions into the room and some of the ambient room air is collected by DC#1 before exhausting outside through EP 1.

Baghouse DC #6 collects some ambient grinding room air too and exhausts it through EP 00009. DC #6 is also connected directly to emission sources on both grinding systems to reduce fugitive emissions to the grinding room.

Emission Source/Control: 00101 - Control
Control Type: SINGLE CYCLONE

Emission Source/Control: 00102 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 00901 - Control
Control Type: SINGLE CYCLONE

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Emission Source/Control: 00902 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 00100 - Process

Item 33.3(From Mod 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 using a natural gas fired rotary dryer (Rotary Dryer #1, ES 00400). The exhaust from the dryer goes through a baghouse (ES 00401) and then through panel filters (ES 00402) before exiting to the atmosphere through emission point 00004. This process is the first portion of system 1.

Emission Source/Control: 00401 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 00402 - Control
Control Type: MAT OR PANEL FILTER

Emission Source/Control: 00400 - Process
Design Capacity: 18 tons per hour

Item 33.4(From Mod 2):

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

Emission Unit: 0-0000A
Process: 007
Source Classification Code: 3-05-035-05
Process Description:

Drying of glass using a natural gas fired rotary dryer (Rotary Dryer #2, ES 00700). The exhaust from the dryer goes through a dust collector (DC#5). This dust collector exhausts into the general ventilation dust collection system which starts with a cyclone (ES 00101) and then through a baghouse (ES 00102) before exiting to the atmosphere through emission point 00001. This process is the first portion of system 2. (The second portion of system 2 is in process 002.)

Emission Source/Control: 00101 - Control
Control Type: SINGLE CYCLONE

Emission Source/Control: 00102 - Control
Control Type: FABRIC FILTER

Emission Source/Control: 00700 - Process
Design Capacity: 18 tons per hour



