



AIR QUALITY PROGRAM

301 Thirty-ninth Street, Bldg. #7
Pittsburgh, PA 15201-1891

Synthetic Minor Source/Minor Modification INSTALLATION PERMIT

Issued To: McConway & Torley LLC
109 48th Street
Pittsburgh, PA 15201-2755

ACHD Permit#: 0275-I013

Date of Issuance:

Expiration Date: (See Section III.12)

Issued By: _____
Sandra L. Etzel
Air Pollution Control Manager

Prepared By: David D. Good
Air Pollution Control Engineer

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AMENDMENTS:

DATE	SECTION
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I. CONTACT INFORMATION

All inquiries concerning this permit should be directed to:

Facility Location: **McConway & Torley LLC**
109 48th Street
Pittsburgh, PA 15201-2755

Permittee/Owner: **McConway & Torley LLC**
109 48th Street
Pittsburgh, PA 15201-2755

Responsible Official: **Scott Mautino**
Title: Vice President of Operations
Company: **McConway & Torley LLC**
Address: 109 48th Street
Pittsburgh, PA 15201-2755
Telephone Number: (412) 682-4700
Fax Number: (412) 682-4725

Facility Contact: **Scott Buterbaugh**
Title: Director Safety and Environmental
Telephone Number: (412) 682-4700 ext. 341
Fax Number: (412) 682-4725
E-mail Address: scott.buterbaugh@trin.net

AGENCY ADDRESSES:

ACHD Contact: **Chief Engineer**
Allegheny County Health Department
Air Quality Program
301 39th Street, Building #7
Pittsburgh, PA 15201-1891

II. FACILITY AND INSTALLATION DESCRIPTION

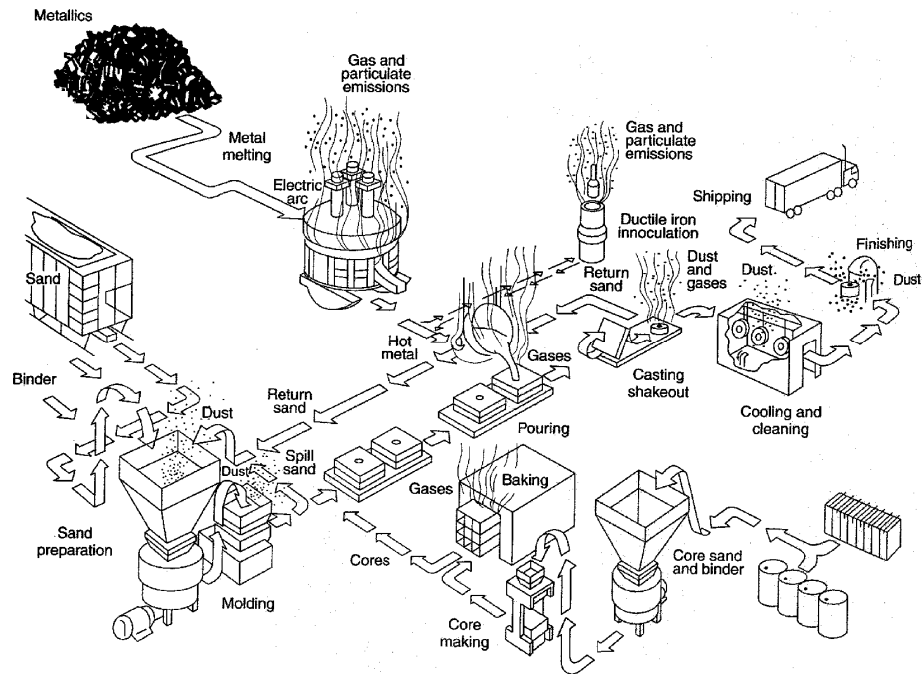
The McConway and Torley Corporation (McConway and Torley) facility is a manufacturer of steel railcar products and mining castings. The types of processes conducted at the facility include steel melting, casting, heat-treating and finishing. The facility is a minor source of nitrogen oxides (NO_x), particulate matter (PM), particulate matter less than 10 microns in diameter (PM₁₀), particulate matter less than 2.5 microns in diameter (PM_{2.5}) and sulfur dioxide (SO₂), as defined in §2101.20 of Article XXI. The facility is a synthetic minor source, carbon monoxide (CO), volatile organic compounds (VOCs), and hazardous air pollutants (HAPs) emissions, as defined in §2101.20 of Article XXI.

This installation permit is for the replacement of baghouse nos. 5 and. 8 with a single baghouse dust collector, installing new sand reclamation equipment (10 ton/hr vibra-mill and two rotary reclaimers), adding two (2) sand silos of 15 ton capacity each, and adding several collection hoods and ducts associated with the mold making equipment, mold punchout/shakeout and casting conveying system. There are no increases in potential emissions due to these installations.

Table II-1: Emission Unit Identification

SOURCE DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM PRODUCTION	FUEL/RAW MATERIAL	STACK I.D.
Sand Handling and Preparation	New Baghouse No. 12	105 tons/hr sand	Sand	BH #12
Casting Shakeout	New Baghouse No. 12	105 tons/hr sand	Sand	BH #12
Mold Making Systems	New Baghouse No. 12	105 tons/hr sand	Sand	BH #12
Sand Reclamation – Cooler/Classifier	New Baghouse No. 12	105 tons/hr sand	Sand	BH #12
Sand Reclamation – Vibra-Mill	New Baghouse No. 12	10 tons/hr sand	Sand	BH #12
Sand Reclamation – Rotary Reclaimers	New Baghouse No. 12	10 tons/hr sand	Sand	BH #12
Two (2) 15 Ton Intermediate Sand Silos	New Baghouse No. 12	N/A	Sand	N/A
5000 ft ³ Sand Dust Silo	New Baghouse No. 12	N/A	Sand	N/A
Sand Lifter	None	300 SCFM	Processed Sand	N/A

Process Flow Diagram



DECLARATION OF POLICY

Pollution prevention is recognized as the preferred strategy (over pollution control) for reducing risk to air resources. Accordingly, pollution prevention measures should be integrated into air pollution control programs wherever possible, and the adoption by sources of cost-effective compliance strategies, incorporating pollution prevention, is encouraged. The Department will give expedited consideration to any permit modification request based on pollution prevention principles.

The permittee is subject to the terms and conditions set forth below. These terms and conditions constitute provisions of *Allegheny County Health Department Rules and Regulations, Article XXI Air Pollution Control*. The subject equipment has been conditionally approved for installation. The equipment shall be installed and operated in conformity with the plans, specifications, conditions, and instructions that are part of your application, and may be periodically inspected for compliance by the Department. In the event that the terms and conditions of this permit or the applicable provisions of Article XXI conflict with the application for this permit, these terms and conditions and the applicable provisions of Article XXI shall prevail. Additionally, nothing in this permit relieves the permittee from the obligation to comply with all applicable federal, State and local laws and regulations.

III. GENERAL CONDITIONS -- MINOR MODIFICATION

1. Prohibition of Air Pollution (§2101.11)

It shall be a violation of this permit to fail to comply with, or to cause or assist in the violation of, any requirement of this permit or Article XXI, or any order or permit issued pursuant to authority granted by Article XXI. The permittee shall not willfully, negligently, or through the failure to provide and operate necessary control equipment or to take necessary precautions, operate any source of air contaminants in such manner that emissions from such source:

- a. Exceed the amounts permitted by this permit or by any order or permit issued pursuant to Article XXI;
- b. Cause an exceedance of the ambient air quality standards established by §2101.10 of Article XXI; or
- c. May reasonably be anticipated to endanger the public health, safety, or welfare.

2. Nuisances (§2101.13)

Any violation of any requirement of this Permit shall constitute a nuisance.

3. Definitions (§2101.20)

- a. Except as specifically provided in this permit, terms used retain the meaning accorded them under the applicable provisions and requirements of Article XXI. Whenever used in this permit, or in any action taken pursuant to this permit, the words and phrases shall have the meanings stated, unless the context clearly indicates otherwise.
- b. Unless specified otherwise in this permit or an applicable regulation, a “year” shall be defined as any 12 consecutive months.

4. Certification (§2102.01)

Any report, or compliance certification submitted under this permit shall contain written certification by a responsible official as to truth, accuracy, and completeness. This certification and any other certification required under this permit shall be signed by a responsible official of the source, and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

5. Operation and Maintenance (§2105.03)

All air pollution control equipment required by this permit or Article XXI, and all equivalent compliance techniques that have been approved by the Department, shall be properly installed, maintained, and operated consistent with good air pollution control practice.

6. Conditions (§2102.03.c)

It shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02 for any person to fail to comply with any terms or conditions set forth in this permit.

7. Transfers (§2102.03.e)

This permit shall not be transferable from one person to another, except in accordance with Article XXI §2102.03.e and in cases of change-in-ownership which are documented to the satisfaction of the Department, and shall be valid only for the specific sources and equipment for which this permit was issued. The transfer of permits in the case of change-in-ownership may be made consistent with the administrative permit amendment procedure of Article XXI §2103.14.b.

8. Effect (§2102.03.g)

Issuance of this permit shall not in any manner relieve any person of the duty to fully comply with the requirements of Article XXI or any other provision of law, nor shall it in any manner preclude or affect the right of the Department to initiate any enforcement action whatsoever for violations of Article XXI or this Permit, whether occurring before or after the issuance of such permit. Further, the issuance of this permit shall not be a defense to any nuisance action, nor shall such permit be construed as a certificate of compliance with the requirements of Article XXI or this Permit.

9. General Requirements (§2102.04.a)

It shall be a violation of this Permit giving rise to the remedies set forth in Article XXI §2109 for any person to install, modify, replace, reconstruct, or reactivate any source or air pollution control equipment to which this Permit applies unless either:

- a. The Department has first issued an Installation Permit for such source or equipment; or,
- b. Such action is solely a reactivation of a source with a current Operating Permit, which is approved under §2103.13 of Article XXI.

10. Conditions (§2102.04.e)

Further, the initiation of installation, modification, replacement, reconstruction, or reactivation under this Installation Permit and any reactivation plan shall be deemed acceptance by the source of all terms and conditions specified by the Department in this permit and plan.

11. Revocation (§2102.04.f)

- a. The Department may, at any time, revoke this Installation Permit if it finds that:
 - 1) Any statement made in the permit application is not true, or that material information has not been disclosed in the application;
 - 2) The source is not being installed, modified, replaced, reconstructed, or reactivated in the manner indicated by this permit or applicable reactivation plan;
 - 3) Air contaminants will not be controlled to the degree indicated by this permit;
 - 4) Any term or condition of this permit has not been complied with;
 - 5) The Department has been denied lawful access to the premises or records, charts, instruments and the like as authorized by this Permit; or
- b. Prior to the date on which construction of the proposed source has commenced the Department may, revoke this Installation Permit if a significantly better air pollution control technology has become available for such source, a more stringent regulation applicable to such source has been adopted, or any other change has occurred which requires a more stringent degree of control of air contaminants.

12. Term (§2102.04.g)

This Installation Permit shall expire in 18 months if construction has not commenced within such period or shall expire one (1) year after such construction has been suspended, if construction is not resumed within such period. In any event, this Installation Permit shall expire upon completion of construction, except that this Installation Permit shall authorize temporary operation to facilitate shakedown of sources and air cleaning devices, to permit operations pending issuance of a related subsequent Operating Permit, or to permit the evaluation of the air contamination aspects of the source. Such temporary operation period shall be valid for a limited time, not to exceed 180 days, but may be extended for additional limited periods, each not to exceed 120 days, except that no temporary operation shall be authorized or extended which may circumvent the requirements of this Permit.

13. Annual Installation Permit Administrative Fee (§2102.10.c & e)

No later than 30 days after the date of issuance of this Installation Permit and on or before the last day of the month in which this permit was issued in each year thereafter, during the term of this permit until a subsequent corresponding Operating Permit or amended Operating Permit is properly applied for, the owner or operator of such source shall pay to the Department, in addition to all other applicable emission and administration fees, an Annual Installation Permit Administration Fee in an amount of \$750.

14. Severability Requirement (§2103.12.l)

The provisions of this permit are severable, and if any provision of this permit is determined to by a court of competent jurisdiction to be invalid or unenforceable, such a determination will not affect the remaining provisions of this permit.

15. Reporting Requirements (§2103.12.k)

- a. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the Responsible Official.
- b. Prompt reporting of deviations from permit requirements is required, including those attributable to upset conditions as defined in this permit and Article XXI §2108.01.c, the probable cause of such deviations, and any corrective actions or preventive measures taken.
- c. All reports submitted to the Department shall comply with the certification requirements of General Condition III.4 above.
- d. Semiannual reports required by this permit shall be submitted to the Department as follows:
 - 1) One semiannual report is due by July 31 of each year for the time period beginning January 1 and ending June 30.
 - 2) One semiannual report is due by January 31 of each year for the time period beginning July 1 and ending December 31 of the previous year.
 - 3) The first semiannual report shall be due July 31, 2016 for the time period beginning on the issuance date of this permit through June 30, 2016.

16. Minor Installation Permit Modifications (§2102.10.d)

Modifications to this Installation Permit may be applied for but only upon submission of an application with a fee in the amount of \$300 and where:

- a. No reassessment of any control technology determination is required; and
- b. No reassessment of any ambient air quality impact is required.

17. Violations (§2104.06)

The violation of any emission standard established by this Permit shall be a violation of this Permit giving rise to the remedies provided by Article §2109.02.

18. Other Requirements Not Affected (§2105.02)

Compliance with the requirements of this permit shall not in any manner relieve any person from the duty to fully comply with any other applicable federal, state, or county statute, rule, regulation, or the like, including, but not limited to, any applicable NSPSs, NESHAPs, MACTs, or Generally Achievable Control Technology standards now or hereafter established by the EPA, and any applicable requirement of BACT or LAER as provided by Article XXI, any condition contained in this Installation Permit and/or any additional or more stringent requirements contained in an order issued to such person pursuant to Part I of Article XXI.

19. Other Rights and Remedies Preserved (§2109.02.b)

Nothing in this permit shall be construed as impairing any right or remedy now existing or hereafter created in equity, common law or statutory law with respect to air pollution, nor shall any court be deprived of such jurisdiction for the reason that such air pollution constitutes a violation of this permit

20. Penalties, Fines, and Interest (§2109.07.a)

A source that fails to pay any fee required under this Permit or article XXI when due shall pay a civil penalty of 50% of the fee amount, plus interest on the fee amount computed in accordance with of Article XXI §2109.06.a.4 from the date the fee was required to be paid. In addition, the source may have its permit revoked.

21. Appeals (§2109.10)

In accordance with State Law and County regulations and ordinances, any person aggrieved by an order or other final action of the Department issued pursuant to Article XXI shall have the right to appeal the action to the Director in accordance with the applicable County regulations and ordinances.

IV. SITE LEVEL TERMS AND CONDITIONS

1. Reporting of Upset Conditions (§2103.12.k.2)

The permittee shall promptly report all deviations from permit requirements, including those attributable to upset conditions as defined in Article XXI §2108.01.c, the probable cause of such deviations, and any corrective actions or preventive measures taken.

2. Visible Emissions (§2104.01.a)

Except as provided for by Article XXI §2108.01.d pertaining to a cold start, no person shall operate, or allow to be operated, any source in such manner that the opacity of visible emissions from a flue or process fugitive emissions from such source, excluding uncombined water:

- a. Equal or exceed an opacity of 20% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
- b. Equal or exceed an opacity of 60% at any time.

3. Odor Emissions (§2104.04) (County-only enforceable)

No person shall operate, or allow to be operated, any source in such manner that emissions of malodorous matter from such source are perceptible beyond the property line.

4. Materials Handling (§2104.05)

The permittee shall not conduct, or allow to be conducted, any materials handling operation in such manner that emissions from such operation are visible at or beyond the property line.

5. Operation and Maintenance (§2105.03)

All air pollution control equipment required by this permit or any order under Article XXI, and all equivalent compliance techniques approved by the Department, shall be properly installed, maintained, and operated consistently with good air pollution control practice.

6. Open Burning (§2105.50)

No person shall conduct, or allow to be conducted, the open burning of any material, except where the Department has issued an Open Burning Permit to such person in accordance with Article XXI §2105.50 or where the open burning is conducted solely for the purpose of non-commercial preparation of food for human consumption, recreation, light, ornament, or provision of warmth for outside workers, and in a manner which contributes a negligible amount of air contaminants.

7. Shutdown of Control Equipment (§2108.01.b)

- a. In the event any air pollution control equipment is shut down for reasons other than a breakdown, the person responsible for such equipment shall report, in writing, to the Department the intent to shut down such equipment at least 24 hours prior to the planned shutdown. Notwithstanding the submission of such report, the equipment shall not be shut down until the approval of the Department is obtained; provided, however, that no such report shall be required if the source(s)

served by such air pollution control equipment is also shut down at all times that such equipment is shut down.

- b. The Department shall act on all requested shutdowns as promptly as possible. If the Department does not take action on such requests within ten (10) calendar days of receipt of the notice, the request shall be deemed denied, and upon request, the owner or operator of the affected source shall have a right to appeal in accordance with the provisions of Article XI.
- c. The prior report required by Site Level Condition IV.7.a above shall include:
 - 1) Identification of the specific equipment to be shut down, its location and permit number (if permitted), together with an identification of the source(s) affected;
 - 2) The reasons for the shutdown;
 - 3) The expected length of time that the equipment will be out of service;
 - 4) Identification of the nature and quantity of emissions likely to occur during the shutdown;
 - 5) Measures, including extra labor and equipment, which will be taken to minimize the length of the shutdown, the amount of air contaminants emitted, or the ambient effects of the emissions;
 - 6) Measures which will be taken to shut down or curtail the affected source(s) or the reasons why it is impossible or impracticable to shut down or curtail the affected source(s) during the shutdown; and,
 - 7) Such other information as may be required by the Department.

8. Breakdowns (§2108.01.c)

- a. In the event that any air pollution control equipment, process equipment, or other source of air contaminants breaks down in such manner as to have a substantial likelihood of causing the emission of air contaminants in violation of this permit, or of causing the emission into the open air of potentially toxic or hazardous materials, the person responsible for such equipment or source shall immediately, but in no event later than sixty (60) minutes after the commencement of the breakdown, notify the Department of such breakdown and shall, as expeditiously as possible but in no event later than seven (7) days after the original notification, provide written notice to the Department.
- b. To the maximum extent possible, all oral and written notices required shall include all pertinent facts, including:
 - 1) Identification of the specific equipment which has broken down, its location and permit number (if permitted), together with an identification of all related devices, equipment, and other sources which will be affected.
 - 2) The nature and probable cause of the breakdown.
 - 3) The expected length of time that the equipment will be inoperable or that the emissions will continue.
 - 4) Identification of the specific material(s) which are being, or are likely to be emitted, together with a statement concerning its toxic qualities, including its qualities as an irritant, and its potential for causing illness, disability, or mortality.
 - 5) The estimated quantity of each material being or likely to be emitted.
 - 6) Measures, including extra labor and equipment, taken or to be taken to minimize the length of the breakdown, the amount of air contaminants emitted, or the ambient effects of the emissions, together with an implementation schedule.

- 7) Measures being taken to shut down or curtail the affected source(s) or the reasons why it is impossible or impractical to shut down the source(s), or any part thereof, during the breakdown.
- c. Notices required shall be updated, in writing, as needed to advise the Department of changes in the information contained therein. In addition, any changes concerning potentially toxic or hazardous emissions shall be reported immediately. All additional information requested by the Department shall be submitted as expeditiously as practicable.
- d. Unless otherwise directed by the Department, the Department shall be notified whenever the condition causing the breakdown is corrected or the equipment or other source is placed back in operation by no later than 9:00 AM on the next County business day. Within seven (7) days thereafter, written notice shall be submitted pursuant to Paragraphs a and b above.
- e. Breakdown reporting shall not apply to breakdowns of air pollution control equipment which occur during the initial startup of said equipment, provided that emissions resulting from the breakdown are of the same nature and quantity as the emissions occurring prior to startup of the air pollution control equipment.
- f. In no case shall the reporting of a breakdown prevent prosecution for any violation of this permit or Article XXI.

9. Cold Start (§2108.01.d)

In the event of a cold start on any fuel-burning or combustion equipment, except stationary internal combustion engines and combustion turbines used by utilities to meet peak load demands, the person responsible for such equipment shall report in writing to the Department the intent to perform such cold start at least 24 hours prior to the planned cold start. Such report shall identify the equipment and fuel(s) involved and shall include the expected time and duration of the startup. Upon written application from the person responsible for fuel-burning or combustion equipment which is routinely used to meet peak load demands and which is shown by experience not to be excessively emissive during a cold start, the Department may waive these requirements and may instead require periodic reports listing all cold starts which occurred during the report period. The Department shall make such waiver in writing, specifying such terms and conditions as are appropriate to achieve the purposes of Article XXI. Such waiver may be terminated by the Department at any time by written notice to the applicant.

10. Monitoring of Malodorous Matter Beyond Facility Boundaries (§2104.04)

The permittee shall take all reasonable action as may be necessary to prevent malodorous matter from becoming perceptible beyond facility boundaries. Further, the permittee shall perform such observations as may be deemed necessary along facility boundaries to insure that malodorous matter beyond the facility boundary in accordance with Article XXI §2107.13 is not perceptible and record all findings and corrective action measures taken.

11. Emissions Inventory Statements (§2108.01.e)

- a. Emissions inventory statements in accordance with §2108.01.e shall be submitted to the Department by March 15 of each year for the preceding calendar year. The Department may require more frequent submittals if the Department determines that more frequent submissions are

required by the EPA or that analysis of the data on a more frequent basis is necessary to implement the requirements of Article XXI or the Clean Air Act.

- b. The failure to submit any report or update within the time specified, the knowing submission of false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

12. Orders (§2108.01.f)

In addition to meeting the requirements Site Level Conditions IV.7 through IV.11, inclusive, the person responsible for any source shall, upon order by the Department, report to the Department such information as the Department may require in order to assess the actual and potential contribution of the source to air quality. The order shall specify a reasonable time in which to make such a report.

13. Violations (§2108.01.g)

The failure to submit any report or update thereof required by Site Level Conditions IV.7 through IV.12 above, inclusive, within the time specified, the knowing submission of false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

14. Emissions Testing (§2108.02)

- a. **Orders:** No later than 60 days after achieving full production or 120 days after startup, whichever is earlier, the permittee shall conduct, or cause to be conducted, such emissions tests as are specified by the Department to demonstrate compliance with the applicable requirements of this permit and shall submit the results of such tests to the Department in writing. Upon written application setting forth all information necessary to evaluate the application, the Department may, for good cause shown, extend the time for conducting such tests beyond 120 after startup but shall not extend the time beyond 60 days after achieving full production. Emissions testing shall comply with all applicable requirements of Article XXI, §2108.02.e.
- b. **Tests by the Department:** Notwithstanding any tests conducted pursuant to this permit, the Department or another entity designated by the Department may conduct emissions testing on any source or air pollution control equipment. At the request of the Department, the permittee shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance of such tests.
- c. **Testing Requirements:** No later than 45 days prior to conducting any tests required by this permit, the person responsible for the affected source shall submit for the Department's approval a written test protocol explaining the intended testing plan, including any deviations from standard testing procedures, the proposed operating conditions of the source during the test, calibration data for specific test equipment and a demonstration that the tests will be conducted under the direct supervision of persons qualified by training and experience satisfactory to the Department to conduct such tests. In addition, at least 30 days prior to conducting such tests, the person responsible shall notify the Department in writing of the time(s) and date(s) on which the tests will be conducted and shall allow Department personnel to observe such tests, record data, provide pre-weighed filters, analyze samples in a County laboratory and to take samples for independent analysis. Test results shall be comprehensively and accurately reported in the units of measurement specified by the applicable emission limitations of this permit.

- d. Test methods and procedures shall conform to the applicable reference method set forth in this permit or Article XXI Part G, or where those methods are not applicable, to an alternative sampling and testing procedure approved by the Department consistent with Article XXI §2108.02.e.2.
- e. **Violations:** The failure to perform tests as required by this permit or an order of the Department, the failure to submit test results within the time specified, the knowing submission of false information, the willful failure to submit complete results, or the refusal to allow the Department, upon presentation of a search warrant, to conduct tests, shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

15. Abrasive Blasting (§2105.51)

- a. Except where such blasting is a part of a process requiring an operating permit, no person shall conduct or allow to be conducted, abrasive blasting or power tool cleaning of any surface, structure, or part thereof, which has a total area greater than 1,000 square feet unless such abrasive blasting complies with all applicable requirements of Article XXI §2105.51.
- b. In addition to complying with all applicable provisions of §2105.51, no person shall conduct, or allow to be conducted, abrasive blasting of any surface unless such abrasive blasting also complies with all other applicable requirements of Article XXI unless such requirements are specifically addressed by §2105.51.

16. Asbestos Abatement (§2105.62, §2105.63)

In the event of removal, encasement, or encapsulation of Asbestos-Containing Material (ACM) at a facility or in the event of the demolition of any facility, the permittee shall comply with all applicable provisions of Article XXI §2105.62 and §2105.63.

17. Fugitive Emissions (§2105.49)

The person responsible for a source of fugitive emissions, in addition to complying with all other applicable provisions of this permit shall take all reasonable actions to prevent fugitive air contaminants from becoming airborne. Such actions may include, but are not limited to:

- a. The use of asphalt, oil, water, or suitable chemicals for dust control;
- b. The paving and maintenance of roadways, parking lots and the like;
- c. The prompt removal of earth or other material which has been deposited by leaks from transport, erosion or other means;
- d. The adoption of work or other practices to minimize emissions;
- e. Enclosure of the source; and
- f. The proper hooding, venting, and collection of fugitive emissions.

18. Episode Plans (§2106.02)

The permittee shall upon written request of the Department, submit a source curtailment plan, consistent with good industrial practice and safe operating procedures, designed to reduce emissions of air contaminants during air pollution episodes. Such plans shall meet the requirements of Article XXI §2106.02.

19. New Source Performance Standards (§2105.05)

- a. It shall be a violation of this permit giving rise to the remedies provided by §2109.02 of Article XXI for any person to operate, or allow to be operated, any source in a manner that does not comply with all requirements of any applicable NSPS now or hereafter established by the EPA, except if such person has obtained from EPA a waiver pursuant to Section 111 or Section 129 of the Clean Air Act or is otherwise lawfully temporarily relieved of the duty to comply with such requirements.
- b. Any person who operates, or allows to be operated, any source subject to any NSPS shall conduct, or cause to be conducted, such tests, measurements, monitoring and the like as is required by such standard. All notices, reports, test results and the like as are required by such standard shall be submitted to the Department in the manner and time specified by such standard. All information, data and the like which is required to be maintained by such standard shall be made available to the Department upon request for inspection and copying.

20. Emission Limitations. (§2103.20.b.4)

The total combined weight of resin used in the core-making process shall not exceed 540,000 pounds during any consecutive 12-month period. The total percentage of resin usage shall be less than or equal to 1.0% of the sand core weight for all cores produced at the facility.

V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

A. Process P003-1, P003-4: Mold Making System and Sand Handling/Preparation

Process Description: Mold Making System, Sand Handling/Preparation
Facility ID: P003-1, P003-4
Max. Design Rate/Units: 105 tons/hour sand
Raw Materials: Mold sand
Control Device: Baghouse #12 for Sand Handling/Preparation

The permittee is also subject to the following conditions:

1. Restrictions

- a. The maximum amount of mold sand used in the Mold Making process shall not exceed 85 tons per hour. (§2103.12.a.2.D, §2102.04.e., §2104.01.a)
- b. The permittee shall not operate, or allow to be operated, the mold making units, and the sand preparation and handling system in such manner that the opacity of visible emissions from a flue or process fugitive emissions from excluding uncombined water (§2103.12.a.2.D, §2102.04.b.6):
 - 1) Exceed an opacity of 0% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
 - 2) Equal or exceed an opacity of 10% at any time.
- c. The airflow from the sand preparation and handling system shall be directed to Baghouse No. 12 with a capture efficiency of 99% at all times of operation of the Mold Making or Sand Handling System(s). (§2103.12.a.2.D)
- d. The filterable particulate matter emissions contained in the exhaust stream of Baghouse No. 12 shall not exceed 0.0022 grains per dry standard cubic foot of airflow at any time. (§2102.04.b.6)
- e. Emissions shall not exceed the following at any time (§2102.04.b.6, §2103.20.b.4):

Table V.A.1 –Baghouse #12 Sand Handling Emissions Limitations

POLLUTANT	LBS/HR	TPY¹
PM ²	4.98	21.83
PM ₁₀ ²	4.98	21.83
PM _{2.5} ²	4.98	21.83
PM Condensable	1.59	6.96
VOC	5.53	24.22
CO	5.70	24.97
Benzene	0.52	2.28
Phenol	1.16	5.10

Naphthalene	0.14	0.60
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¹ A year is defined as any 12 consecutive months.

² Includes condensable emissions.

- f. Baghouse No. 12 shall be properly operated and maintained according to good engineering practices and in accordance with manufacturer’s specifications at all times. (§2103.12.a.2.D)
- g. The differential pressure drop ranges across Baghouse #12 reflecting normal operations shall be established and incorporated into the O&M plan no later than 60 days after achieving full production or 120 days after startup. (§2103.12.a.2.D.)

2. Testing Requirements

- a. The permittee shall perform emissions testing consisting of three (3) runs that are each two (2) hours in length for particulate matter, (filterable and condensable particulate), carbon monoxide, volatile organic compounds and hazardous air pollutants on the outlet of Baghouse #12 in accordance with Site Level Condition IV.14 above. (§2103.12.a.2.D, §2103.12.h.1)
- b. Testing for particulate matter, PM10 and PM2.5 shall be performed using USEPA Methods 1 through 5, Method 201/201A and Method 202. (§2103.12.a.2.D, §2103.12.h.1)
- c. Testing for carbon monoxide shall be performed using Method 10. (§2103.12.a.2.D, §2103.12.h.1)
- d. Testing for volatile organic compounds shall be performed using Method 25A. (§2103.12.a.2.D, §2103.12.h.1)
- e. Compliance of the filterable particulate matter emissions standards of Condition V.A.1.d above shall be met by USEPA Method 5 (front-half only). (§2103.12.a.2.D, §2103.12.h.1)
- f. Emissions testing in accordance with condition V.A.2.a above shall be performed no later than 60 days after achieving full production or 120 days after startup and at least once every five years from the most recent stack test. (§2103.12.a.2.D)
- g. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1)

3. Monitoring Requirements

- a. The permittee shall, at all times, have instrumentation to continuously monitor the differential pressure drop across each compartment of Baghouse No. 12 during operation of the Mold Making, Sand Handling, Casting Shakeout or Reclaimer processes. Such instrumentation shall measure the pressure drop to within ½” w.c. and be properly operated, calibrated, and maintained according to manufacturer’s specifications. [§2102.04.e, §2103.12.h.1]
- b. The permittee shall check the fan motor amperes for Baghouse No. 12, on a daily basis. [§2102.04.e, §2103.12.i]

- c. No later than 60 days after achieving full production or 120 days after startup of Baghouse No. 12, whichever is earlier, the permittee shall install, operate and maintain gauges for the Baghouse No. 12 with differential pressure ranges and accuracies that are approved in writing by the Department [§2102.04.b.6; §2105.03]

4. Record Keeping Requirements

- a. The permittee shall record the amount of sand used and the number of molds produced on a monthly and 12-month rolling total basis. (§2103.12.a.2.D, §2103.12.j)
- b. The permittee shall read and record the differential pressure drop readings and fan motor amperes across Baghouse #12 on a daily basis. (§2103.12.a.2.D, §2103.12.j)
- c. The permittee shall record the number of hours of operation of the mold making process on a monthly basis. (§2103.12.a.2.D, §2103.12.j)
- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2)

5. Reporting Requirements

- a. Monthly sand usage and mold production shall be reported to the Department on a semi-annual basis in accordance with General Condition III.15 above (§2103.12.a.2.D, §2103.12.k)
- b. The permittee shall report a summary of the pressure drop readings indicating if any readings fall outside the range as specified in Condition V.A.4.b above, and actions taken to correct these deviations, in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k)
- c. Reporting instances of non-compliance does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2102.04.b.4, §2103.12.k)

6. Work Practice Standard

All air pollution control equipment required by Article XXI or any permit or order under Article XXI, and all equivalent compliance techniques which have been approved by the Department pursuant to Article XXI, shall be properly installed, maintained, and operated consistent with good air pollution control practices. (§2103.12.a.2.D, §2105.03)

7. Additional Requirements

After demonstrating compliance for Condition V.A.2.e above, the permittee shall only use replacement baghouse bags with equal or better (lower grain loading) rated bags than those used in the most recent stack test. (§2102.04.b.6)

B. Process P003-2: Casting Shakeout

Process Description: Shakeout
Process Components: Shakeout system table
Max. Design Rate: 105 tons/hour of sand
Raw Materials: Sand
Control Device: Baghouse #12

1. Restrictions

- a. The maximum amount of sand processed in the Shakeout System processes shall not exceed 85 tons per hour. (§2103.12.a.2.D, §2102.04.e., §2104.01.a)
- b. The permittee shall not operate, or allow to be operated, the shakeout system in such manner that the opacity of visible emissions from a flue or process fugitive emissions from the sources, excluding uncombined water (§2103.12.a.2.D; §2102.04.e.):
 - 1) Exceed an opacity of 0% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
 - 2) Equal or exceed an opacity of 10% at any time.
- c. The airflow from the Shakeout shall be directed to Baghouse No. 12 with a capture efficiency of 99% at all times of operation of the Shakeout System. (§2103.12.a.2.D)
- d. Filterable particulate matter emissions contained in the exhaust stream of Baghouse No. 12 shall not exceed 0.0022 grains per dry standard cubic foot of airflow at any time. (§2102.04.b.6)
- e. The differential pressure drop ranges across Baghouse #12 reflecting normal operations shall be established and incorporated into the O&M plan no later than 60 days after achieving full production or 120 days after startup. (§2103.12.a.2.D.)
- f. Emissions from Baghouse No. 12 shall not exceed the following at any time (§2102.04.b.6, §2103.20.b.4):

Table V.B.1 –Baghouse #12 Emissions Limitations

POLLUTANT	LBS/HR	TPY¹
PM ²	4.98	21.83
PM ₁₀ ²	4.98	21.83
PM _{2.5} ²	4.98	21.83
PM Condensable	1.59	6.96
VOC	5.53	24.22
CO	5.70	24.97
Benzene	0.52	2.28
Phenol	1.16	5.10

Naphthalene	0.14	0.60
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¹ A year is defined as any 12 consecutive months.

² Includes condensable emissions.

2. Testing Requirements

- a. The permittee shall perform emissions testing consisting of three (3) runs that are each two (2) hours in length for particulate matter, (filterable and condensable particulate), carbon monoxide, volatile organic compounds and hazardous air pollutants on the outlet of Baghouse #12 in accordance with Site Level Condition IV.14 above. (§2103.12.a.2.D, §2103.12.h.1)
- b. Testing for particulate matter, PM10 and PM2.5 shall be performed using USEPA Methods 1 through 5, Method 201/201A and Method 202. (§2103.12.a.2.D, §2103.12.h.1)
- c. Testing for carbon monoxide shall be performed using Method 10. (§2103.12.a.2.D, §2103.12.h.1)
- d. Testing for volatile organic compounds shall be performed using Method 25A. (§2103.12.a.2.D, §2103.12.h.1)
- e. Compliance of the filterable particulate matter emissions standards of Condition V.B.1.d above shall be met by USEPA Method 5 (front-half only). (§2103.12.a.2.D, §2103.12.h.1)
- f. Emissions testing in accordance with condition V.B.2.a above shall be performed no later than 60 days after achieving full production or 120 days after startup and at least once every five years from the most recent stack test. (§2103.12.a.2.D)
- g. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1)

3. Monitoring Requirements

- a. The permittee shall, at all times, have instrumentation to continuously monitor the differential pressure drop across each compartment of Baghouse No. 12 during operation of the Mold Making, Sand Handling, Casting Shakeout or Reclaimer processes. Such instrumentation shall measure the pressure drop to within ½” w.c. and be properly operated, calibrated, and maintained according to manufacturer’s specifications. [§2102.04.e, §2103.12.h.1]
- b. The permittee shall check the fan motor amperes for Baghouse No. 12, on a daily basis. [§2102.04.e, §2103.12.i]
- c. No later than 60 days after achieving full production or 120 days after startup of Baghouse No. 12, whichever is earlier, the permittee shall install, operate and maintain gauges for the Baghouse No. 12 with differential pressure ranges and accuracies that are approved in writing by the Department [§2102.04.b.6; §2105.03]

4. Record Keeping Requirements

- a. The permittee shall record the amount of sand processed (in tons), resin processed (in pounds),

and the amount of steel processed (in tons) through the Shakeout System on a monthly and 12-month rolling total basis. (§2103.12.a.2.D, §2103.12.j)

- b. The permittee shall record the total number of heats performed on a monthly and 12-month rolling total basis. (§2103.12.a.2.D, §2103.12.j)
- c. The permittee shall read and record the differential pressure drop readings and fan motor amperes across Baghouse #12 on a daily basis. (§2103.12.a.2.D, §2103.12.j)
- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2)

5. Reporting Requirements

- a. Monthly sand, resin and steel processed totals shall be reported to the Department on a semi-annual basis in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k)
- b. The permittee shall report a summary of the pressure drop readings indicating if any readings fall outside the range as specified in Condition **Error! Reference source not found.**, and actions taken to correct these deviations, in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k)
- c. Reporting instances of non-compliance does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2102.04.b.4, §2103.12.k)

6. Work Practice Standard

All air pollution control equipment required by Article XXI or any permit or order under Article XXI, and all equivalent compliance techniques which have been approved by the Department pursuant to Article XXI, shall be properly installed, maintained, and operated consistent with good air pollution control practices. (§2103.12.a.2.D, §2105.03)

7. Additional Requirements

After demonstrating compliance for Condition V.B.2.e above, the permittee shall only use replacement baghouse bags with equal or better (lower grain loading) rated bags than those used in the most recent stack test. (§2102.04.b.6)

C. Process P003-3a: Sand Reclaim Cooler/Classifier (existing)

Process Description: Sand Reclaim Systems
Process Components: Existing cooler/classifier
Max. Design Rate: 105 tons/hour of sand (entire system)
Raw Materials: Processed Sand
Control Device: Baghouse #12

1. Restrictions

- a. The maximum amount of mold sand processed in the Sand Reclaim Cooler/Classifier shall not exceed 85 tons per hour. (§2103.12.a.2.D, §2102.04.e., §2104.01.a)
- b. The permittee shall not operate, or allow to be operated, the Sand Reclaim Cooler/Classifier in such manner that the opacity of visible emissions from a flue or process fugitive emissions from the sources, excluding uncombined water (§2103.12.a.2.D; §2102.04.e.):
 - 1) Exceed an opacity of 0% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
 - 2) Equal or exceed an opacity of 10% at any time.
- c. The airflow from the Sand Reclaim Cooler/Classifier shall be directed to Baghouse No. 12 with a capture efficiency of 99.5% at all times the Sand Reclaim Cooler/Classifier is operating. (§2103.12.a.2.D)
- d. Filterable particulate matter emissions contained in the exhaust stream of Baghouse No. 12 shall not exceed 0.0022 grains per dry standard cubic foot of airflow at any time. (§2102.04.b.6)
- e. The differential pressure drop ranges across Baghouse #12 reflecting normal operations shall be established and incorporated into the O&M plan no later than 60 days after achieving full production or 120 days after startup. (§2103.12.a.2.D.)
- f. Emissions from Baghouse No. 12 shall not exceed the following at any time (§2102.04.b.6, §2103.20.b.4):

Table V.C.1 –Baghouse #12 Emissions Limitations

POLLUTANT	LBS/HR	TPY¹
PM ²	4.98	21.83
PM ₁₀ ²	4.98	21.83
PM _{2.5} ²	4.98	21.83
PM Condensable	1.59	6.96
VOC	5.53	24.22
CO	5.70	24.97
Benzene	0.52	2.28

Phenol	1.16	5.10
Naphthalene	0.14	0.60

¹ A year is defined as any 12 consecutive months.

² Includes condensable emissions.

2. Testing Requirements

- a. The permittee shall perform emissions testing consisting of three (3) runs that are each two (2) hours in length for particulate matter, (filterable and condensable particulate), carbon monoxide, volatile organic compounds and hazardous air pollutants on the outlet of Baghouse #12 in accordance with Site Level Condition IV.14 above. (§2103.12.a.2.D, §2103.12.h.1)
- b. Testing for particulate matter, PM10 and PM2.5 shall be performed using USEPA Methods 1 through 5, Method 201/201A and Method 202. (§2103.12.a.2.D, §2103.12.h.1)
- c. Testing for carbon monoxide shall be performed using Method 10. (§2103.12.a.2.D, §2103.12.h.1)
- d. Testing for volatile organic compounds shall be performed using Method 25A. (§2103.12.a.2.D, §2103.12.h.1)
- e. Compliance of the filterable particulate matter emissions standards of Condition V.C.1.d above shall be met by USEPA Method 5 (front-half only). (§2103.12.a.2.D, §2103.12.h.1)
- f. Emissions testing in accordance with condition V.C.2.a above shall be performed no later than 60 days after achieving full production or 120 days after startup and at least once every five years from the most recent stack test. (§2103.12.a.2.D)
- g. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1)

3. Monitoring Requirements

- a. The permittee shall, at all times, have instrumentation to continuously monitor the differential pressure drop across each compartment of Baghouse No. 12 during operation of the Mold Making, Sand Handling, Casting Shakeout or Reclaimer processes. Such instrumentation shall measure the pressure drop to within ½” w.c. and be properly operated, calibrated, and maintained according to manufacturer’s specifications. [§2102.04.e, §2103.12.h.1]
- b. The permittee shall check and record the fan motor amperes for Baghouse No. 12, on a daily basis. [§2102.04.e, §2103.12.i]
- c. No later than 60 days after achieving full production or 120 days after startup of Baghouse No. 12, whichever is earlier, the permittee shall install, operate and maintain gauges for the Baghouse No. 12 with differential pressure ranges and accuracies that are approved in writing by the Department [§2102.04.b.6; §2105.03]

4. Record Keeping Requirements

- a. The permittee shall record the amount of sand processed (in tons) through the Sand Reclaim Cooler/Classifier on a monthly and 12-month rolling total basis. (§2103.12.a.2.D, §2103.12.j)
- b. The permittee shall record the total number of heats performed on a monthly and 12-month rolling total basis. (§2103.12.a.2.D, §2103.12.j)
- c. The permittee shall read and record the differential pressure drop readings and fan motor amperes across Baghouse #12 on a daily basis. (§2103.12.a.2.D, §2103.12.j)
- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2)

5. Reporting Requirements

- a. Monthly sand processed totals shall be reported to the Department on a semi-annual basis in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k)
- b. The permittee shall report a summary of the pressure drop readings indicating if any readings fall outside the range as specified in Condition **Error! Reference source not found.**, and actions taken to correct these deviations, in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k)
- c. Reporting instances of non-compliance does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2102.04.b.4, §2103.12.k)

6. Work Practice Standard

All air pollution control equipment required by Article XXI or any permit or order under Article XXI, and all equivalent compliance techniques which have been approved by the Department pursuant to Article XXI, shall be properly installed, maintained, and operated consistent with good air pollution control practices. (§2103.12.a.2.D, §2105.03)

7. Additional Requirements

After demonstrating compliance for Condition V.C.2.e above, the permittee shall only use replacement baghouse bags with equal or better (lower grain loading) rated bags than those used in the most recent stack test. (§2102.04.b.6)

D. Process P003-3b: Sand Reclaim Vibra-Mill (new)

Process Description: Sand Reclaim Vibra-Mill
Process Components: New Vibra-Mill
Max. Design Rate: 10 tons/hour of sand
Raw Materials: Processed Sand
Control Device: Baghouse #12

1. Restrictions

- a. The maximum amount of mold sand processed in the Sand Reclaim Vibra-Mill shall not exceed 10 tons per hour or 87,600 tons per any consecutive 12-month period. (§2103.12.a.2.D, §2102.04.e., §2104.01.a)
- b. The permittee shall not operate, or allow to be operated, the Sand Reclaim Vibra-Mill in such manner that the opacity of visible emissions from a flue or process fugitive emissions from the sources, excluding uncombined water (§2103.12.a.2.D; §2102.04.e.):
 - 1) Exceed an opacity of 0% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
 - 2) Equal or exceed an opacity of 10% at any time.
- c. The airflow from the Sand Reclaim Vibra-Mill shall be directed to Baghouse No. 12 with a capture efficiency of 99.5% at all times the Sand Reclaim Vibra-Mill is operating. (§2103.12.a.2.D)
- d. Filterable particulate matter emissions contained in the exhaust stream of Baghouse No. 12 shall not exceed 0.0022 grains per dry standard cubic foot of airflow at any time. (§2102.04.b.6)
- e. The differential pressure drop ranges across Baghouse #12 reflecting normal operations shall be established and incorporated into the O&M plan no later than 60 days after achieving full production or 120 days after startup. (§2103.12.a.2.D.)
- f. Emissions from Baghouse No. 12 shall not exceed the following at any time (§2102.04.b.6, §2103.20.b.4):

Table V.D.1 –Baghouse #12 Emissions Limitations

POLLUTANT	LBS/HR	TPY¹
PM ²	4.98	21.83
PM ₁₀ ²	4.98	21.83
PM _{2.5} ²	4.98	21.83
PM Condensable	1.59	6.96
VOC	5.53	24.22
CO	5.70	24.97
Benzene	0.52	2.28

Phenol	1.16	5.10
Naphthalene	0.14	0.60

¹ A year is defined as any 12 consecutive months.

² Includes condensable emissions.

2. Testing Requirements

- a. The permittee shall perform emissions testing consisting of three (3) runs that are each two (2) hours in length for particulate matter, (filterable and condensable particulate), carbon monoxide, volatile organic compounds and hazardous air pollutants on the outlet of Baghouse #12 in accordance with Site Level Condition IV.14 above. (§2103.12.a.2.D, §2103.12.h.1)
- b. Testing for particulate matter, PM10 and PM2.5 shall be performed using USEPA Methods 1 through 5, Method 201/201A and Method 202. (§2103.12.a.2.D, §2103.12.h.1)
- c. Testing for carbon monoxide shall be performed using Method 10. (§2103.12.a.2.D, §2103.12.h.1)
- d. Testing for volatile organic compounds shall be performed using Method 25A. (§2103.12.a.2.D, §2103.12.h.1)
- e. Compliance of the filterable particulate matter emissions standards of Condition V.D.1.d above shall be met by USEPA Method 5 (front-half only). (§2103.12.a.2.D, §2103.12.h.1)
- f. Emissions testing in accordance with condition V.D.2.a above shall be performed no later than 60 days after achieving full production or 120 days after startup and at least once every five years from the most recent stack test. (§2103.12.a.2.D)
- g. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1)

3. Monitoring Requirements

- a. The permittee shall, at all times, have instrumentation to continuously monitor the differential pressure drop across each compartment of Baghouse No. 12 during operation of the Mold Making, Sand Handling, Casting Shakeout or Reclaimer processes. Such instrumentation shall measure the pressure drop to within ½” w.c. and be properly operated, calibrated, and maintained according to manufacturer’s specifications. [§2102.04.e, §2103.12.h.1]
- b. The permittee shall check and record the fan motor amperes for Baghouse No. 12, on a daily basis. [§2102.04.e, §2103.12.i]
- c. No later than 60 days after achieving full production or 120 days after startup of Baghouse No. 12, whichever is earlier, the permittee shall install, operate and maintain gauges for the Baghouse No. 12 with differential pressure ranges and accuracies that are approved in writing by the Department [§2102.04.b.6; §2105.03]

4. Record Keeping Requirements

- a. The permittee shall record the amount of sand processed (in tons) through the Sand Reclaim Vibra-Mill on a monthly and 12-month rolling total basis. (§2103.12.a.2.D, §2103.12.j)
- b. The permittee shall record the total number of heats performed on a monthly and 12-month rolling total basis. (§2103.12.a.2.D, §2103.12.j)
- c. The permittee shall read and record the differential pressure drop readings and fan motor amperes across Baghouse #12 on a daily basis. (§2103.12.a.2.D, §2103.12.j)
- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2)

5. Reporting Requirements

- a. Monthly sand processed totals shall be reported to the Department on a semi-annual basis in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k)
- b. The permittee shall report a summary of the pressure drop readings indicating if any readings fall outside the range as specified in Condition **Error! Reference source not found.**, and actions taken to correct these deviations, in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k)
- c. Reporting instances of non-compliance does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2102.04.b.4, §2103.12.k)

6. Work Practice Standard

All air pollution control equipment required by Article XXI or any permit or order under Article XXI, and all equivalent compliance techniques which have been approved by the Department pursuant to Article XXI, shall be properly installed, maintained, and operated consistent with good air pollution control practices. (§2103.12.a.2.D, §2105.03)

7. Additional Requirements

After demonstrating compliance for Condition V.D.2.e above, the permittee shall only use replacement baghouse bags with equal or better (lower grain loading) rated bags than those used in the most recent stack test. (§2102.04.b.6)

E. Process P003-3c: Sand Reclaim Rotary Reclaimer (new)

Process Description: New Sand Reclaim Rotary Reclaimer
Process Components: Two (2) Rotary Reclaimers
Max. Design Rate: 75 hp, 230/460 motor
Raw Materials: Processed Sand
Control Device: Baghouse #12

1. Restrictions

- a. The maximum amount of mold sand processed by each Sand Reclaim Rotary Reclaimer shall not exceed 10 tons per hour or 87,600 tons per any consecutive 12-month period. (§2103.12.a.2.D, §2102.04.e., §2104.01.a)
- b. The permittee shall not operate, or allow to be operated, the Sand Reclaim Rotary Reclaimer process in such manner that the opacity of visible emissions from a flue or process fugitive emissions from the sources, excluding uncombined water (§2103.12.a.2.D; §2102.04.e.):
 - 1) Exceed an opacity of 0% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
 - 2) Equal or exceed an opacity of 10% at any time.
- c. The airflow from the Sand Reclaim Rotary Reclaimer process shall be directed to Baghouse No. 12 with a capture efficiency of 99.5% at all times the Sand Reclaim Rotary Reclaimer process is operating. (§2103.12.a.2.D)
- d. Filterable particulate matter emissions contained in the exhaust stream of Baghouse No. 12 shall not exceed 0.0022 grains per dry standard cubic foot of airflow at any time. (§2102.04.b.6)
- e. The differential pressure drop ranges across Baghouse #12 reflecting normal operations shall be established and incorporated into the O&M plan no later than 60 days after achieving full production or 120 days after startup. (§2103.12.a.2.D.)
- f. Emissions from Baghouse No. 12 shall not exceed the following at any time (§2102.04.b.6, §2103.20.b.4):

Table V.E.1 –Baghouse #12 Emissions Limitations

POLLUTANT	LBS/HR	TPY¹
PM ²	4.98	21.83
PM ₁₀ ²	4.98	21.83
PM _{2.5} ²	4.98	21.83
PM Condensable	1.59	6.96
VOC	5.53	24.22
CO	5.70	24.97
Benzene	0.52	2.28

Phenol	1.16	5.10
Naphthalene	0.14	0.60

¹ A year is defined as any 12 consecutive months.

² Includes condensable emissions.

2. Testing Requirements

- a. The permittee shall perform emissions testing consisting of three (3) runs that are each two (2) hours in length for particulate matter, (filterable and condensable particulate), carbon monoxide, volatile organic compounds and hazardous air pollutants on the outlet of Baghouse #12 in accordance with Site Level Condition IV.14 above. (§2103.12.a.2.D, §2103.12.h.1)
- b. Testing for particulate matter, PM10 and PM2.5 shall be performed using USEPA Methods 1 through 5, Method 201/201A and Method 202. (§2103.12.a.2.D, §2103.12.h.1)
- c. Testing for carbon monoxide shall be performed using Method 10. (§2103.12.a.2.D, §2103.12.h.1)
- d. Testing for volatile organic compounds shall be performed using Method 25A. (§2103.12.a.2.D, §2103.12.h.1)
- e. Compliance of the filterable particulate matter emissions standards of Condition V.E.1.d above shall be met by USEPA Method 5 (front-half only). (§2103.12.a.2.D, §2103.12.h.1)
- f. Emissions testing in accordance with condition V.E.2.a above shall be performed no later than 60 days after achieving full production or 120 days after startup and at least once every five years from the most recent stack test. (§2103.12.a.2.D)
- g. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1)

3. Monitoring Requirements

- a. The permittee shall, at all times, have instrumentation to continuously monitor the differential pressure drop across each compartment of Baghouse No. 12 during operation of the Mold Making, Sand Handling, Casting Shakeout or Reclaimer processes. Such instrumentation shall measure the pressure drop to within ½” w.c. and be properly operated, calibrated, and maintained according to manufacturer’s specifications. [§2102.04.e, §2103.12.h.1]
- b. The permittee shall check and record the fan motor amperes for Baghouse No. 12, on a daily basis. [§2102.04.e, §2103.12.i]
- c. No later than 60 days after achieving full production or 120 days after startup of Baghouse No. 12, whichever is earlier, the permittee shall install, operate and maintain gauges for the Baghouse No. 12 with differential pressure ranges and accuracies that are approved in writing by the Department [§2102.04.b.6; §2105.03]

4. Record Keeping Requirements

- a. The permittee shall record the amount of sand processed (in tons) through the Sand Reclaim Rotary Reclaimer process on a monthly and 12-month rolling total basis. (§2103.12.a.2.D, §2103.12.j)
- b. The permittee shall record the total number of heats performed on a monthly and 12-month rolling total basis. (§2103.12.a.2.D, §2103.12.j)
- c. The permittee shall read and record the differential pressure drop readings and fan motor amperes across Baghouse #12 on a daily basis. (§2103.12.a.2.D, §2103.12.j)
- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2)

5. Reporting Requirements

- a. Monthly sand processed totals shall be reported to the Department on a semi-annual basis in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k)
- b. The permittee shall report a summary of the pressure drop readings indicating if any readings fall outside the range as specified in Condition **Error! Reference source not found.**, and actions taken to correct these deviations, in accordance with General Condition III.15 above. (§2103.12.a.2.D, §2103.12.k)
- c. Reporting instances of non-compliance does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2102.04.b.4, §2103.12.k)

6. Work Practice Standard

All air pollution control equipment required by Article XXI or any permit or order under Article XXI, and all equivalent compliance techniques which have been approved by the Department pursuant to Article XXI, shall be properly installed, maintained, and operated consistent with good air pollution control practices. (§2103.12.a.2.D, §2105.03)

7. Additional Requirements

After demonstrating compliance for Condition V.E.2.e above, the permittee shall only use replacement baghouse bags with equal or better (lower grain loading) rated bags than those used in the most recent stack test. (§2102.04.b.6)

F. Process P003-5: Sand Storage with Sand Lifters

Process Description:	Two (2) 15 ton Intermediate Sand Storage Silos
Facility ID:	Sand Storage
Max. Design Rate/Units:	15 tons
Raw Materials:	Sand
Control Device:	Baghouse No. 12

The permittee is also subject to the following conditions:

1. Restrictions

- a. The permittee shall conduct Sand Storage operations in a manner such that emissions from these operations are not visible at or beyond the facility property line at any time. (§2104.05)
- b. The Sand Storage silos shall exhaust to Baghouse No. 12 at all times and the particulate matter emissions exiting Baghouse No. 12 shall not exceed of 0.0022 grains/dscf at any time. (§2102.04.b.6, §2105.03)

2. Testing Requirements

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Article XXI §2108.02. (§2103.12.h.1)

3. Monitoring Requirements

None.

4. Record Keeping Requirements

- a. The permittee shall keep and maintain the following data for the Sand Storage silos: (§2102.04.b.6)
 - 1) Sand throughput (tons/year); and
 - 2) Records of operation, maintenance, inspection, calibration and/or replacement of control equipment.
- b. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2102.04.b.6)
- c. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2)

5. Reporting Requirements

- a. The permittee shall report the following information to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1, §2102.04.b.6)

- 1) Annual sand throughput data required to be recorded by condition V.F.4.a.1) above; and
 - 2) Non-compliance information required to be recorded by V.F.4.b above.
- b. Reporting instances of non-compliance in accordance with condition V.F.5.a.2) above does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1, §2102.04.b.6)

6. Work Practice Standards

The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer's recommendations and good engineering practices. [§2105.03]

7. Additional Requirements

The permittee shall notify the Department in writing ten (10) days prior to start-up of the new Sand Storage Silos. The installation of the equipment included in this permit shall be inspected and approved by the Department before being placed into normal operation. (§2102.04.b.6)

VI. MISCELLANEOUS

I.D.	SOURCE DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM CAPACITY	FUEL/RAW MATERIAL	STACK I.D.
P003-7	Sand Dust Silo	Baghouse No. 12	5,000 ft ³	Processed Sand	N/A
P003-8	Sand Lifter	None	300 SCFM	Processed Sand	N/A

VII. EMISSION LIMITATIONS SUMMARY

Annual emissions from the Baghouse No. 12 at the McConway and Torley facility are summarized in the table below:

Table VII-1

POLLUTANT	LBS/HR	TPY¹
PM ²	4.98	21.83
PM ₁₀ ²	4.98	21.83
PM _{2.5} ²	4.98	21.83
PM Condensable	1.59	6.96
VOC	5.53	24.22
CO	5.70	24.97
Benzene	0.52	2.28
Phenol	1.16	5.10
Naphthalene	0.14	0.60

¹ A year is defined as any 12 consecutive months.

² Includes condensable emissions.