PUBLIC NOTICE

Imerys Greeneville, Inc. has applied to the Tennessee Department of Environment and Conservation, Division of Air Pollution Control for renewal of their major source (Title V) operating permit subject to the provisions of Tennessee Air Pollution Control Regulations 1200-03-09-.02(11) (Title V Regulations). A major source operating permit is required by both the Federal Clean Air Act and Tennessee's air pollution control regulations. However, it should be noted that this facility has a current major source operating permit.

The applicant is **Imerys Greeneville, Inc.** with a site address of 109 Coile Street, Greeneville, TN 37745. They have applied for renewal of their existing major source (Title V) operating permit for their fused silica and zirconium oxide manufacturing operation.

EPA has agreed to treat this draft Part 70 permit as a proposed Part 70 permit and to perform its 45-day review provided by the law concurrently with the public notice period. If any substantive comments are received, EPA's 45-day review period will cease to be performed concurrently with the public notice period. In this case, EPA's 45-day review period will start once the public notice period has been completed and EPA receives notification from the Tennessee Air Pollution Control Division that comments have been received and resolved. The status regarding EPA's 45-day review of these permits and the deadline for submitting a citizen's petition can be found at the following website address:

https://www.epa.gov/caa-permitting/tennessee-proposed-title-v-permits

Copies of the application materials and draft permits are available for public inspection during normal business hours at the following locations:

Tennessee Department of Environment and Conservation
Division of Air Pollution Control
Johnson City Environmental Field Office
2305 Silverdale Road,
Johnson City, TN 37601

and

Tennessee Department of Environment and Conservation
Division of Air Pollution Control
Davy Crockett Tower, 7th Floor
500 James Robertson Parkway
Nashville, TN 37243

Electronic copies of the draft permits are available by accessing the TDEC internet site located at:

https://www.tn.gov/environment/ppo-public-participation/ppo-public-participation/ppo-air.html

Questions concerning the source(s) may be addressed to Travis Blake at (615) 306-1990 or by e-mail at travis.blake@tn.gov.

Interested parties are invited to review these materials and comment. In addition, a public hearing may be requested at which written or oral presentations may be made. To be considered, written comments or requests for a public hearing must be received no later than 4:30 PM on **October 16, 2026**. To assure that written comments are received and addressed in a timely manner, written comments must be submitted using one of the following methods:

1. **Mail, private carrier, or hand delivery:** Address written comments to Division of Air Pollution Control, Davy Crockett Tower, 500 James Robertson Parkway, 7th Floor, Nashville, TN 37243.

2. **E-mail**: Submit electronic comments to air.pollution.control@tn.gov.

A final determination will be made after weighing all relevant comments.

Individuals with disabilities who wish to review information maintained at the above-mentioned depositories should contact the Tennessee Department of Environment and Conservation to discuss any auxiliary aids or services needed to facilitate such review. Such contact may be in person, by writing, telephone, or other means, and should be made no less than ten days prior to the end of the public comment period to allow time to provide such aid or services. Contact the Tennessee Department of Environment and Conservation ADA Coordinator, Davy Crockett Tower, 6th Floor, 500 James Robertson Parkway, Nashville, TN 37243, (615) 532-0211. Hearing impaired callers may use the Tennessee Relay Service, 1-(800)-848-0298.

Air Pollution Control
Assigned to – Travis Blake

DATE: SEPTEMBER 11, 2026

Draft/Proposed Title V Operating Permit 581394

STATE OF TENNESSEE
AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243

OPERATING PERMIT (TITLE V) Issued Pursuant to Tennessee Air Quality Act

This permit fulfills the requirements of Title V of the Federal Clean Air Act (42 U.S.C. 7661a-7661e) and the federal regulations promulgated thereunder at 40 CFR Part 70. (FR Vol. 57, No. 140, Tuesday, July 21, 1992 p.32295-32312). This permit is issued in accordance with the provisions of paragraph 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations (TAPCR). The permittee has been granted permission to operate an air contaminant source in accordance with emissions limitations and monitoring requirements set forth herein.

Date Issued: ******DRAFT******

Date Expires: ******DRAFT******

Permit Number: 581394

Issued To: Imerys Greeneville, Inc.

Installation Address:
109 Coile Street
Greeneville

Installation Description:

Emission Point	Description
05	Nine Ball Mills and Accessories
06	Special Products Operation
07	Grain Plant
09	Blend Area
10	Powder Plant
11	Crusher at Ingot Yard
25	Seventeen Electric Rotary Fusion Furnaces
26	No. 1 Spherical Process
34	No. 2 Spherical Process
35	Sand Reclamation Process

Emission Point	Description
36	Vibratory Grinding Drum
51	Pour Furnace No. 1
52	No. 2 Bead Grinder, Ball Mills 7 & 8, Vibe Mills A side and B side, and Coarse Grain Packaging
53	Higgins Furnace
54	No. 1 Bead Grinder and Crusher
55	Core Processing Operation
56	Classification and Packaging System
57	Pour Furnace No. 2
60	Two Crushers for Zirconium Oxides

Facility ID: 30-0001

Renewal Application Due Date: Between ******* and *******

Primary SIC: 32

Information Relied Upon: Renewal Application dated May 16, 2023. Administrative Amendment Request dated June 1, 2023 (Title V Operating Permit 572862). Administrative Amendment request dated April 2, 2024 (Title V Operating Permit 572862). Application dated May 15, 2024 (submitted as Significant Modification #1 to Title V Operating Permit 572862). Application dated March 25, 2026 (submitted as Minor Modification #5 to Title V Operating Permit 572862).

(continued on the next page)

TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

POST AT INSTALLATION ADDRESS

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SECTION A
GENERAL PERMIT CONDITIONS

A permit issued under the provisions of Tennessee Air Pollution Control Regulations (TAPCR) paragraph 1200-03-09-.02(11) is a permit issued pursuant to the requirements of Title V of the Federal Act and its implementing Federal regulations promulgated at 40 CFR, Part 70.

A1. **Definitions.** Terms not otherwise defined in the permit shall have the meaning assigned to such terms in the referenced regulations.

TAPCR 1200-03 and 0400-30

A2. **Compliance requirement.** All terms and conditions in a permit issued pursuant to TAPCR paragraph 1200-03-09-.02(11), including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act. The permittee shall comply with all conditions of its permit. Except for requirements specifically designated herein as not being federally enforceable (State Only), non-compliance with the permit requirements is a violation of the Federal Act and the Tennessee Air Quality Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Non-compliance with permit conditions specifically designated herein as not being federally enforceable (State Only) is a violation of the Tennessee Air Quality Act and may be grounds for these actions.

TAPCR 1200-03-09-.02(11)(e)2(i) and 1200-03-09-.02(11)(e)1(vi)(I)

A3. **Need to halt or reduce activity.** The need to halt or reduce activity is not a defense for noncompliance. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. However, nothing in this item shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations.

TAPCR 1200-03-09-.02(11)(e)1(vi)(II)

A4. **The permit.** The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

TAPCR 1200-03-09-.02(11)(e)1(vi)(III)

A5. **Property rights.** The permit does not convey any property rights of any sort, or any exclusive privilege.

TAPCR 1200-03-09-.02(11)(e)1(vi)(IV)

A6. **Submittal of requested information.** The permittee shall furnish to the Technical Secretary, within a reasonable time, any information that the Technical Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or termination of the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Technical Secretary copies of records required to be kept by the permit. If the permittee claims that such information is confidential, the Technical Secretary may review that claim and hold the information in protected status until such time that the Board can hear any contested proceedings regarding confidentiality disputes. If the information is desired by EPA, the permittee may mail the information directly to EPA. Any claims of confidentiality for federal purposes will be determined by EPA.

TAPCR 1200-03-09-.02(11)(e)1(vi)(V)

A7. **Severability clause.** The requirements of this permit are severable. A dispute regarding one or more requirements of this permit does not invalidate or otherwise excuse the permittee from their duty to comply with the remaining portion of the permit.

TAPCR 1200-03-09.02(11)(e)1(v)

A8. **Fee payment.**

(a) The permittee shall pay an annual Title V fee in accordance with TAPCR 1200-03-26-.02(9) based upon the applicable base fee; the applicable permit modification fee(s); the responsible official's choice of actual emissions, allowable emissions, or a combination of actual and allowable emissions; and on the responsible official's choice of annual accounting period. An emission cap of 4,000 tons per year per regulated pollutant per major source SIC Code shall apply to actual or allowable based emission fees. A Title V annual emission fee will not be charged for emissions in excess of the cap. Title V annual emission fees will not be charged for carbon monoxide or for greenhouse gas pollutants solely because they are greenhouse gases.

(b) Title V sources shall pay allowable based emission fees until the beginning of the next annual accounting period following receipt of their initial Title V operating permit. At that time, the permittee shall begin paying their Title V fee based upon the applicable base fee; the applicable permit modification fee(s); and their choice of actual or allowable based fees, or mixed actual and allowable based fees. Once permitted, the Responsible Official may revise their existing fee choice by submitting a written request to the Division no later than December 31 of the annual accounting period for which the fee is due.

(c) When paying annual Title V emission fees, the permittee shall comply with all provisions of TAPCR Rule 1200-03-26-.02 and paragraph 1200-03-09-.02(11) applicable to such fees.

(d) Where more than one allowable emission limit is applicable to a regulated pollutant, the allowable emissions for the regulated pollutants shall not be double counted. Major sources subject to the provisions of TAPCR paragraph 1200-03-26-.02(9) shall apportion their emissions as follows to ensure that their fees are not double counted.

1. Emissions of hazardous air pollutants (HAP) that are included in the particulate matter (including PM_{10}) category or the volatile organic compound category shall be included in those categories.

2. HAP that are not included in either the particulate matter category or volatile organic compound category shall be included in the category of Hazardous Air Pollutants Not Included Above.

3. Each individual HAP is subject to the 4,000 ton cap provisions of TAPCR subparagraph 1200-03-26-.02(2)(i).

4. Major sources that wish to pay annual emission fees for PM_{10} on an allowable emission basis may do so if they have a specific PM_{10} allowable emission standard. If a major source has a total particulate emission standard, but wishes to pay annual emission fees on an actual PM_{10} emission basis, it may do so if the PM_{10} actual emission levels are proven to the satisfaction of the Technical Secretary. The method to demonstrate the actual PM_{10} emission levels must be made as part of the source's major source operating permit in advance in order to exercise this option. The PM_{10} emissions reported under these options shall not be subject to fees under the family of particulate emissions. The 4,000 ton cap provisions of TAPCR subparagraph 1200-03-26-.02(2)(i) shall also apply to PM_{10} emissions.

(e) Emissions of pollutants that do not fall in one of the listed categories shall be included in the category of Miscellaneous Pollutants Not Listed Above. Each miscellaneous pollutant is subject to the 4,000-ton cap provisions.

TAPCR 1200-03-26-.02 and 1200-03-09-.02(11)(e)1(vii)

A9. **Permit revision not required.** A permit revision will not be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or process for changes that are provided for in the permit.

TAPCR 1200-03-09-.02(11)(e)1(viii)

A10. **Inspection and entry.** Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Technical Secretary or an authorized representative to perform the following for the purposes of determining compliance with the permit applicable requirements:

(a) Enter upon, at reasonable times, the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

(d) As authorized by the Clean Air Act and Chapter 1200-03-10 of the TAPCR, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(e) "Reasonable times" shall be considered to be customary business hours unless reasonable cause exists to suspect noncompliance with the Act, TAPCR Division 1200-03 or any permit issued pursuant thereto and the Technical Secretary specifically authorizes an inspector to inspect a facility at any other time.

TAPCR 1200-03-09-.02(11)(e)3(ii)

A11. Permit shield.

(a) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date of permit issuance, provided that:

1. Such applicable requirements are included and are specifically identified in the permit; or

2. The Technical Secretary, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

(b) Nothing in this permit shall alter or affect the following:

1. The provisions of section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section. Similarly, the provisions of T.C.A. §68-201-109 (emergency orders) including the authority of the Governor under the section;

2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Federal Act; or

4. The ability of EPA to obtain information from a source pursuant to section 114 of the Federal Act.

(c) Permit shield is granted to the permittee.

(d) The permit shield does not apply to permit changes made under the minor permit modification procedures of TAPCR subpart 1200-03-09-.02(11)(f)5(ii) nor the administrative permit amendment procedures of TAPCR part 1200-03-09-.02(11)(f)4, except that the permit shield may be extended for administrative permit amendments that meet the relevant requirements of TAPCR subparagraph 1200-03-09-.02(11)(e), subparagraph 1200-03-09-.02(11)(f) and subparagraph 1200-03-09-.02(11)(g) for significant permit modifications.

(e) The permit shield does not apply to off-permit changes made under the operational flexibility provisions of TAPCR part 1200-03-09-.02(11)(a)4.

TAPCR 1200-03-09-.02(11)(e)6 and 1200-03-09-.02(11)(f)4(iv)

A12. Permit renewal and expiration.

(a) An application for permit renewal must be submitted at least 180 days, but no more than 270 days, prior to the expiration of this permit. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted.

(b) If the permittee submits a timely and complete application for permit renewal the source will not be considered to be operating without a permit until the Technical Secretary takes final action on the permit application, except as otherwise noted in TAPCR paragraph 1200-03-09-.02(11).

(c) This permit, its shield provided in Condition A11, and its conditions will be extended and effective after its expiration date provided that the source has submitted a timely, complete renewal application to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)2 and 3, 1200-03-09-.02(11)(d)1(i)(III), and 1200-03-09-.02(11)(a)2

A13. Reopening for cause.

(a) A permit shall be reopened and revised prior to the expiration of the permit under any of the circumstances listed below:

1. Additional applicable requirements under the Federal Act become applicable to the sources contained in this permit provided the permit has a remaining term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the permit expiration date of this permit, unless the original has been extended pursuant to TAPCR part 1200-03-09-.02(11)(a)2.

2. Additional requirements become applicable to an affected source under the acid rain program.

3. The Technical Secretary or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

4. The Technical Secretary or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(b) Proceedings to reopen and issue a permit shall follow the same proceedings as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists, and not the entire permit. Such reopening shall be made as expeditiously as practicable.

(c) Reopenings for cause shall not be initiated before a notice of such intent is provided to the permittee by the Technical Secretary at least 30 days in advance of the date that the permit is to be reopened except that the Technical Secretary may provide a shorter time period in the case of an emergency. An emergency shall be established by the criteria of T.C.A. 68-201-109 or other compelling reasons that public welfare is being adversely affected by the operation of a source that is in compliance with its permit requirements.

(d) If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit as identified in A13, he is required under federal rules to notify the Technical Secretary and the permittee of such findings in writing. Upon receipt of such notification, the Technical Secretary shall investigate the matter in order to determine if he agrees or disagrees with the Administrator's findings. If he agrees with the Administrator's findings, the Technical Secretary shall conduct the reopening in the following manner:

1. The Technical Secretary shall, within 90 days after receipt of such notification, forward to EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate. If the Administrator grants additional time to secure permit applications or additional information from the permittee, the Technical Secretary shall have the additional time period added to the standard 90-day time period.

2. EPA will evaluate the Technical Secretary's proposed revisions and respond as to their evaluation.

3. If EPA agrees with the proposed revisions, the Technical Secretary shall proceed with the reopening in the same manner prescribed under Condition A13(b) and Condition A13(c).

4. If the Technical Secretary disagrees with either the findings or the Administrator that a permit should be reopened or an objection of the Administrator to a proposed revision to a permit submitted pursuant to Condition A13(d), he shall bring the matter to the Board at its next regularly scheduled meeting for instructions as to how he should proceed. The permittee shall be required to file a written brief expressing their position relative to the Administrator's objection and have a responsible official present at the meeting to answer questions for the Board. If the Board agrees that EPA is wrong in their demand for a permit revision, they shall instruct the

Technical Secretary to conform to EPA's demand, but to issue the permit under protest preserving all rights available for litigation against EPA.

TAPCR 1200-03-09-.02(11)(f)6 and 7

A14. **Permit transference.** An administrative permit amendment allows for a change of ownership or operational control of a source where the Technical Secretary determines that no other change in the permit is necessary, provided that the following requirements are met:

(a) Transfer of ownership permit application is filed consistent with the provisions of TAPCR paragraph 1200-03-09-.03(6), and

(b) written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)4(i)(IV) and 1200-03-09-.03(6)

A15. **Air pollution alert.** When the Technical Secretary has declared that an air pollution alert, an air pollution warning, or an air pollution emergency exists, the permittee must follow the requirements for that episode level as outlined in TAPCR paragraph 1200-03-09-.03(1) and TAPCR Rule 1200-03-15-.03.

A16. **Construction permit required.** Except as exempted in TAPCR Rule 1200-03-09-.04, or excluded in TAPCR subparagraph 1200-03-02-.01(1)(aa) or TAPCR subparagraph 1200-03-02-.01(1)(cc), this facility shall not begin the construction of a new air contaminant source or the modification of an air contaminant source which may result in the discharge of air contaminants without first having applied for and received from the Technical Secretary a construction permit for the construction or modification of such air contaminant source.

TAPCR 1200-03-09-.01(1)(a)

A17. **Notification of changes.** The permittee shall notify the Technical Secretary 30 days prior to commencement of any of the following changes to an air contaminant source which would not be a modification requiring a construction permit.

(a) change in air pollution control equipment

(b) change in stack height or diameter

(c) change in exit velocity of more than 25 percent or exit temperature of more than 15 percent based on absolute temperature.

TAPCR 1200-03-09-.02(7)

A18. **Schedule of compliance.** The permittee will comply with any applicable requirement that becomes effective during the permit term on a timely basis and no later than required by the provisions of the new applicable requirement. If the permittee is not in compliance the permittee must submit a schedule for coming into compliance which must include a schedule of remedial measure(s), including an enforceable set of deadlines for specific actions.

TAPCR 1200-03-09-.02(11)(d)3, 1200-03-09-.03(8), 0400-30-38, 0400-30-39, and 40 CFR Part 70.5(c)

A19. **Title VI.**

(a) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:

1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.

2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.

3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.

(b) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

(c) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR, Part 82, Subpart G, Significant New Alternatives Policy Program.

TAPCR 1200-03-09-.03(8)

A20. **112 (r).** Sources which are subject to the provisions of Section 112(r) of the federal Clean Air Act or any federal regulations promulgated thereunder, shall annually certify in writing to the Technical Secretary that they are properly following their risk management plan. The annual certification is due in the office of the Technical Secretary no later than January 31 of each year. Said certification will be for the preceding calendar year.

TAPCR 1200-03-32-.03(3)

SECTION B
GENERAL CONDITIONS for MONITORING, REPORTING, and ENFORCEMENT

B1. **Recordkeeping.** Monitoring and related record keeping shall be performed in accordance with the requirements specified in the permit conditions for each individual permit unit. In no case shall reports of any required monitoring and record keeping be submitted less frequently than every six months.

(a) Where applicable, records of required monitoring information include the following:
1. The date, place as defined in the permit, and time of sampling or measurements;
2. The date(s) analyses were performed;
3. The company or entity that performed the analysis;
4. The analytical techniques or methods used;
5. The results of such analyses; and
6. The operating conditions as existing at the time of sampling or measurement.

(b) Digital data accumulation which utilizes valid data compression techniques shall be acceptable for compliance determination as long as such compression does not violate an applicable requirement and its use has been approved in advance by the Technical Secretary.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B2. **Retention of monitoring data.** The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

TAPCR 1200-03-09-.02(11)(e)1(iii)(II)II

B3. **Reporting.** Reports of any required monitoring and record keeping shall be submitted to the Technical Secretary in accordance with the frequencies specified in the permit conditions for each individual permit unit. Reports shall be submitted within 60 days of the close of the reporting period unless otherwise noted. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. Reports required under "State only requirements" are not required to be certified by a responsible official.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B4. **Certification.** Except for reports required under “State Only” requirements, any application form, report or compliance certification submitted pursuant to the requirements of this permit shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

TAPCR 1200-03-09-.02(11)(d)4

B5. **Annual compliance certification.** The permittee shall submit annually compliance certifications with terms and conditions contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

(a) The identification of each term or condition of the permit that is the basis of the certification;

(b) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;

(c) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on

the method or means designated in B5(b) above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** as defined below occurred; and

(d) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* "Excursion" shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** "Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667

B6. **Submission of compliance certification.** The compliance certification shall be submitted to:

The Tennessee Department of Environment and Conservation Environmental Field Office specified in Section E of this permit	and	U.S. EPA Compliance and Emissions Data Reporting Interface (CEDRI) or Air Enforcement Branch US EPA Region IV EPA_R4_CAA_Reports@epa.gov

TAPCR 1200-03-09-.02(11)(e)3(v)(IV)

B7. **Emergency provisions.** An emergency constitutes an affirmative defense to an enforcement action brought against this source for noncompliance with a technology-based emission limitation due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

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

1. An emergency occurred and that the permittee can identify the probable cause(s) of the emergency. "Probable" must be supported by a credible investigation into the incident that seeks to identify the causes and results in an explanation supported by generally accepted engineering or scientific principles.

2. The permitted source was at the time being properly operated. In determining whether or not a source was being properly operated, the Technical Secretary shall examine the source's written standard operating procedures which were in effect at the time of the noncompliance and any other code as detailed below that would be relevant to preventing the noncompliance. Adherence to the source's standard operating procedures will be the test of adequate preventative maintenance, careless operation, improper operation or operator error to the extent that such adherence would prevent noncompliance. The source's failure to follow recognized standards of practice to the extent that adherence to such a standard would have prevented noncompliance will disqualify the source from any claim of an emergency and an affirmative defense.

3. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

4. The permittee submitted notice of the emergency to the Technical Secretary according to the notification criteria for malfunctions in TAPCR Rule 1200-03-20-.03. For the purposes of this condition, "emergency" shall be substituted for "malfunction(s)" in TAPCR Rule 1200-03-20-.03 to determine the relevant notification threshold. The notice shall include a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding the permittee seeking to establish the occurrence of an emergency has the burden of proof.

(c) The provisions of this condition are in addition to any emergency, malfunction or upset requirement contained in TAPCR Divisions 1200-03 and 0400-30 or other applicable requirement.

TAPCR 1200-03-09-.02(11)(e)7

B8. **Excess emissions reporting.**

(a) The permittee shall promptly notify the Technical Secretary when any emission source, air pollution control equipment, or related facility breaks down in such a manner to cause the emission of air contaminants in excess of the applicable emission standards contained in TAPCR Division 1200-03 or any permit issued thereto, or of sufficient duration to cause damage to property or public health. The permittee must provide the Technical Secretary with a statement giving all pertinent facts, including the estimated duration of the breakdown, the probable cause of the deviation, and any corrective actions or preventative measures taken. Violations of the visible emission standard which occur for less than 20 minutes in one day (midnight to midnight) need not be reported. Prompt notification will be within 24 hours of the malfunction and shall be provided by telephone to the Division's Nashville office. The Technical Secretary shall be notified when the condition causing the failure or breakdown has been corrected. In attainment and unclassified areas if emissions other than from sources designated as significantly impacting on a nonattainment area in excess of the standards will not and do not occur over more than a 24-hour period (or will not recur over more than a 24-hour period) and no damage to property and or public health is anticipated, notification is not required.

(b) Any malfunction that creates an imminent hazard to health must be reported by telephone immediately to the Division's Nashville office at (615) 532-0554 and to the State Civil Defense.

(c) A log of all malfunctions, startups, and shutdowns resulting in emissions in excess of the standards in TAPCR Division 1200-03 or any permit issued thereto must be kept at the plant. All information shall be entered in the log no later than twenty-four (24) hours after the startup or shutdown is complete, or the malfunction has ceased or has been corrected. Any later discovered corrections can be added in the log as footnotes with the reason given for the change. This log must record at least the following:

1. Stack or emission point involved
2. Time malfunction, startup, or shutdown began and/or when first noticed
3. Type of malfunction and/or reason for shutdown
4. Time startup or shutdown was complete or time the air contaminant source returned to normal operation
5. The company employee making entry on the log must sign, date, and indicate the time of each log entry

The information under items 1. and 2. must be entered into the log by the end of the shift during which the malfunction or startup began. For any source utilizing continuous emission(s) monitoring, continuous emission(s) monitoring collection satisfies the above log keeping requirement.

TAPCR 1200-03-20-.03 and .04

B9. **Malfunctions, startups and shutdowns - reasonable measures required.** The permittee must take all reasonable measures to keep emissions to a minimum during startups, shutdowns, and malfunctions. These measures may include installation and use of alternate control systems, changes in operating methods or procedures, cessation of operation until the process equipment and/or air pollution control equipment is repaired, maintaining sufficient spare parts, use of overtime labor, use of outside consultants and contractors, and other appropriate means. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. This provision does not apply to standards found in 40 CFR, Parts 60 (Standards of performance for new stationary sources), 61(National emission standards for hazardous air pollutants) and 63 (National emission standards for hazardous air pollutants for source categories).

TAPCR 1200-03-20-.02

B10. Reserved.

B11. **Report required upon the issuance of a notice of violation for excess emissions.** The permittee must submit, within twenty days after receipt of the notice of violation, the data required below. If this data has been made available to the Technical Secretary prior to the issuance of the notice of violation no further action is required of the violating source. However, if the source desires

to submit additional information, then this must be submitted within the same 20-day time period. The minimum data requirements are:

(a) The identity of the stack and/or other emission point where the excess emission(s) occurred;

(b) The magnitude of the excess emissions expressed in pounds per hour and the units of the applicable emission limitation(s) and the operating data and calculations used in determining the magnitude of the excess emissions;

(c) The time and duration of the emissions;

(d) The nature and cause of such emissions;

(e) For malfunctions, the steps taken to correct the situation and the action taken or planned to prevent the recurrence of such malfunctions;

(f) The steps taken to limit the excess emissions during the occurrence reported, and

(g) If applicable, documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good operating practices for minimizing emissions.

Failure to submit the required report within the 20-day period specified shall preclude the admissibility of the data for determination of potential enforcement action.

TAPCR 1200-03-20-.06(2), (3) and (4)

SECTION C
PERMIT CHANGES

C1. **Operational flexibility changes.** The source may make operational flexibility changes that are not addressed or prohibited by the permit without a permit revision subject to the following requirements:

(a) The change cannot be subject to a requirement of Title IV of the Federal Act or TAPCR Chapter 1200-03-30.

(b) The change cannot be a modification under any provision of Title I of the federal Act or TAPCR Division 1200-03.

(c) Each change shall meet all applicable requirements and shall not violate any existing permit term or condition.

(d) The source must provide contemporaneous written notice to the Technical Secretary and EPA of each such change, except for changes that are below the threshold of levels that are specified in TAPCR Rule 1200-03-09-.04.

(e) Each change shall be described in the notice including the date, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change.

(f) The change shall not qualify for a permit shield under the provisions of TAPCR part 1200-03-09-.02(11)(e)6.

(g) The permittee shall keep a record describing the changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes. The records shall be retained until the changes are incorporated into subsequently issued permits.

TAPCR 1200-03-09-.02(11)(a)4(ii)

C2. **Section 502(b)(10) changes.**

(a) The permittee can make certain changes without requiring a permit revision, if the changes are not modifications under Title I of the Federal Act or TAPCR Division 1200-03 and the changes do not exceed the emissions allowable under the permit. The permittee must, however, provide the Administrator and Technical Secretary with written notification within a minimum of 7 days in advance of the proposed changes. The Technical Secretary may waive the 7-day advance notice in instances where the source demonstrates in writing that an emergency necessitates the change. Emergency shall be demonstrated by the criteria of TAPCR part 1200-03-09-.02(11)(e)7 and in no way shall it include changes solely to take advantages of an unforeseen business opportunity. The Technical Secretary and EPA shall attach each such notice to their copy of the relevant permit.

(b) The written notification must be signed by a facility Title V responsible official and include the following:

1. a brief description of the change within the permitted facility;
2. the date on which the change will occur;
3. a declaration and quantification of any change in emissions;
4. a declaration of any permit term or condition that is no longer applicable as a result of the change; and
5. a declaration that the requested change is not a Title I modification and will not exceed allowable emissions under the permit.

(c) The permit shield provisions of TAPCR part 1200-03-09-.02(11)(e)6 shall not apply to Section 502(b)(10) changes.

TAPCR 1200-03-09-.02(11)(a)4(i)

C3. **Administrative amendment.**

(a) Administrative permit amendments to this permit shall be in accordance with TAPCR part 1200-03-09-.02(11)(f)4. The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.

(b) The permit shield shall be extended as part of an administrative permit amendment revision consistent with the provisions of TAPCR part 1200-03-09-.02(11)(e)6 for such revisions made pursuant to item (c) of this condition which meet the relevant requirements of TAPCR subparagraph 1200-03-09-.02(11)(e), TAPCR subparagraph 1200-03-09-.02(11)(f) and TAPCR subparagraph 1200-03-09-.02(11)(g) for significant permit modifications.

(c) Proceedings to review and grant administrative permit amendments shall be limited to only those parts of the permit for which cause to amend exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)4

C4. Minor permit modifications.

(a) The permittee may submit an application for a minor permit modification in accordance with TAPCR subpart 1200-03-09-.02(11)(f)5(ii).

(b) The permittee may make the change proposed in its minor permit modification immediately after an application is filed with the Technical Secretary.

(c) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.

(d) Minor permit modifications do not qualify for a permit shield.

TAPCR 1200-03-09-.02(11)(f)5(ii)

C5. Significant permit modifications.

(a) The permittee may submit an application for a significant modification in accordance with TAPCR subpart 1200-03-09-.02(11)(f)5(iv).

(b) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)5(iv)

C6. New construction or modifications.

Future construction at this facility that is subject to the provisions of TAPCR Rule 1200-03-09-.01 shall be governed by the following:

(a) The permittee shall designate in their construction permit application the route that they desire to follow for the purposes of incorporating the newly constructed or modified sources into their existing operating permit. The Technical Secretary shall use that information to prepare the operating permit application submittal deadlines in their construction permit.

(b) Sources desiring the permit shield shall choose the administrative amendment route of TAPCR part 1200-03-09-.02(11)(f)4 or the significant modification route of TAPCR subpart 1200-03-09-.02(11)(f)5(iv).

(c) Sources desiring expediency instead of the permit shield shall choose the minor permit modification procedure route of TAPCR subpart 1200-03-09-.02(11)(f)5(ii) or group processing of minor modifications under the provisions of TAPCR subpart 1200-03-09-.02(11)(f)5(iii) as applicable to the magnitude of their construction.

TAPCR 1200-03-09-.02(11)(d)1(i)(V)

SECTION D
GENERAL APPLICABLE REQUIREMENTS

D1. **Visible emissions.**

(a) With the exception of air emission sources exempt from the requirements of TAPCR Chapter 1200-03-05 and air emission sources for which a different opacity standard is specifically provided elsewhere in this permit, the permittee shall not cause, suffer, allow or permit discharge of a visible emission from any air contaminant source with an opacity in excess of twenty (20) percent for an aggregate of more than five (5) minutes in any one (1)hour or more than 20 minutes in any twenty-four (24) hour period; provided, however, that for fuel burning installations with fuel burning equipment of input capacity greater than 600 million btu per hour, the permittee shall not cause, suffer, allow, or permit discharge of a visible emission from any fuel burning installation with an opacity in excess of 20 percent (6-minute average) except for one six minute period per one hour of not more than 40 percent opacity. Sources constructed or modified after July 7, 1992, shall utilize 6-minute averaging.

(b) Consistent with the requirements of TAPCR Chapter 1200-03-20, due allowance may be made for visible emissions in excess of that permitted under TAPCR Chapter 1200-03-05 which are necessary or unavoidable due to routine startup and shutdown conditions. The facility shall maintain a continuous, current log of all excess visible emissions showing the time at which such conditions began and ended and that such record shall be available to the Technical Secretary or an authorized representative upon request.

TAPCR 1200-03-05-.01(1), TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.02(1)

D2. **General provisions and applicability for non-process gaseous emissions.** Any person constructing or otherwise establishing a non-portable air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize the best equipment and technology currently available for controlling such gaseous emissions.

TAPCR 1200-03-06-.03(2)

D3. **Non-process emission standards.** The permittee shall not cause, suffer, allow, or permit particulate emissions from non-process sources in excess of the standards in TAPCR Chapter 1200-03-06.

D4. **General provisions and applicability for process gaseous emissions.** Any person constructing or otherwise establishing an air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize equipment and technology which is deemed reasonable and proper by the Technical Secretary.

TAPCR 1200-03-07-.07(2)

D5. **Particulate emissions from process emission sources.** The permittee shall not cause, suffer, allow, or permit particulate emissions from process sources in excess of the standards in TAPCR part 1200-03-07.

D6. **Sulfur dioxide emission standards.** The permittee shall not cause, suffer, allow, or permit sulfur dioxide emissions from process and non-process sources in excess of the standards in TAPCR Chapter 1200-03-14. Regardless of the specific emission standard, new process sources shall utilize the best available control technology as deemed appropriate by the Technical Secretary of the Tennessee Air Pollution Control Board.

D7. **Fugitive Dust.**

(a) The permittee shall not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, grading of roads, or the clearing of land;

2. Application of asphalt, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can create airborne dusts;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

(b) The permittee shall not cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five (5) minutes per hour or 20 minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in TAPCR Chapter 1200-03-20.

TAPCR 1200-03-08

D8. **Open burning.** The permittee shall comply with the TAPCR Chapter 1200-03-04 for all open burning activities at the facility.

TAPCR 1200-03-04

D9. **Asbestos.** Where applicable, the permittee shall comply with the requirements of 40 CFR Part 61 when conducting any renovation or demolition activities at the facility.

TAPCR 0400-30-38-.01(2) and 40 CFR, Part 61

D10. **Annual certification of compliance.** The generally applicable requirements set forth in Section D of this permit are intended to apply to activities and sources that are insignificant emission units or activities. By annual certification of compliance with the conditions in this Section the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of TAPCR subpart 1200-03-09-.02(11)(e)1(iii) and part 1200-03-10-.04(2)(b)1 and the compliance requirements of TAPCR subpart 1200-03-09-.02(11)(e)3(i). The permittee shall submit compliance certification for these conditions annually.

D11. **Emission Standards for Hazardous Air Pollutants.** The permittee shall comply with all applicable requirements of TAPCR Chapter 0400-30-38 for all emission sources subject to a requirement contained therein.

D12. **Standards of Performance for New Stationary Sources.** The permittee shall comply with all applicable requirements of TAPCR chapter 0400-30-39 for all emission sources subject to a requirement contained therein.

D13. **Gasoline Dispensing Facilities.** The permittee shall comply with all applicable requirements of TAPCR Rule 1200-03-18-.24 for all emission sources subject to a requirement contained therein.

D14. **Internal Combustion Engines.**

(a) All stationary reciprocating internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Rule 0400-30-38-.01.

(b) All stationary compression ignition internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Chapter 0400-30-39.

(c) All stationary spark ignition internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Chapter 0400-30-39.

TAPCR 0400-30-38 and 39

D15. The permittee shall maintain and repair each emission source, associated air pollution control device(s), and compliance assurance monitoring equipment as required to maintain and assure compliance with the specified emission limits.

TAPCR 1200-03-09-.03(8)

SECTION E

SOURCE SPECIFIC EMISSION STANDARDS, OPERATING LIMITATIONS, and MONITORING, RECORDKEEPING and REPORTING REQUIREMENTS

30-0001	**Facility Description:**	Imerys Greeneville, Inc. processes sand to manufacture high grade fused silica and zirconia. The facility includes sand handling, electric arc furnace, crushing, grinding, milling, and packaging operations.

Sections E1 through E3 apply to all sources in this permit unless otherwise noted.

E1. Fee payment

FEE EMISSIONS SUMMARY TABLE FOR MAJOR SOURCE 30-0001

REGULATED POLLUTANTS	ALLOWABLE EMISSIONS (tons per AAP)	ACTUAL EMISSIONS (tons per AAP)	COMMENTS
PARTICULATE MATTER (PM)	228.56	AEAR	
SO_2	0.08	AEAR	
VOC	28.44	AEAR	
NO_X	10.10	AEAR	
Facility-Wide Total HAP Limit	N/A	N/A	
Facility-Wide Individual HAP Limit	N/A	N/A	
HAZARDOUS AIR POLLUTANTS (HAPs) NOT INCLUDED ABOVE*			
	N/A	N/A	
	N/A	N/A	
	N/A	N/A	
MISCELLANEOUS POLLUTANTS NOT LISTED ABOVE**			
EACH MISC POLLUTANT NOT LISTED ABOVE			
	N/A	N/A	
	N/A	N/A	
	N/A	N/A	
	N/A	N/A	

NOTES

AAP The **Annual Accounting Period** (**AAP**) is a 12 consecutive month period that **either (a) begins each July 1st and ends June 30th of the following year when fees are paid on a fiscal year basis, or (b) begins January 1st and ends December 31st of the same year when paying on a calendar year basis.** The **AAP** at the time of permit renewal issuance **began January 1, 2026, and ends December 31, 2026.** The next AAP begins **January 1, 2027,** and ends **December 31, 2026,** unless a request to change the annual accounting period is submitted by the responsible official as required by subparagraph 1200-03-26-.02(9)(b) of the TAPCR and approved by the Technical Secretary**.** If the permittee wishes to revise their annual accounting period or their annual emission fee basis as allowed by subparagraph 1200-03-26-.02(9)(b) of the TAPCR, the responsible official must submit the request to the Division in writing on or before December 31 of the annual accounting period for which the fee is due. If a change in fee basis from allowable emissions to actual emissions for any pollutant is requested, the request from the responsible official must include the methods that will be used to determine actual emissions. **Changes in fee bases must be made using the Title V Fee Selection form, form number APC 36 (CN-1583), included as an attachment to this permit and available on the Division of Air Pollution Control's website**.

N/A **N/A** indicates that no emissions are specified for fee computation.

AEAR If the permittee is paying annual emission fees on an actual emissions basis, **AEAR** indicates that an **A**ctual **E**missions **A**nalysis is **R**equired to determine the actual emissions of:

(1) **each regulated pollutant** (Particulate matter [PM], SO_2, VOC, NO_X and so forth. See TAPCR 1200-03-26-.02(2)(i) for the definition of a regulated pollutant.),
(2) the "**HAP Not Included Above" Category (non-VOC and non-PM HAP not included in a facility-wide limit)**, and
(3) the **Miscellaneous Category**

under consideration during the **Annual Accounting Period**.

* **Hazardous Air Pollutants Not Included Above:** This category is made-up of hazardous air pollutants that are not included in the VOC or PM category, such as HCl and HF, and are not included in a facility-wide HAP emission limitation. **For fee computation**, each individual hazardous air pollutant is subject to the 4,000-ton cap provisions of subparagraph 1200-03-26-.02(2)(i) of the TAPCR.

** **Miscellaneous Pollutants Not Listed Above:** This category is for pollutants that are not included in one of the other categories but for which an emission limitation has been established in this permit (including NSPS pollutants). **For fee computation**, each pollutant in this category is subject to the 4,000-ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

END NOTES

The permittee shall:

(1) Pay Title V **annual fees** (including the emissions fee, base fee, significant modification fee, & minor modification fee), on the emissions and year bases requested by the responsible official and approved by the Technical Secretary, for each annual accounting period (AAP) by the payment deadline(s) established in TAPCR 1200-03-26-.02(9)(a). Fees may be paid on an **actual**, **allowable**, or **mixed** emissions basis, and on either a **state fiscal year** or a **calendar year**, provided the requirements of TAPCR 1200-03-26-.02(9)(b) are met. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within 15 days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8).

(2) Sources paying annual fees on an allowable emissions basis: pay annual fees for each AAP no later than April 1 of each year pursuant to TAPCR 1200-03-26-.02(9)(d). TAPCR 1200-03-26-.02(9)(a)2(i)

(3) Sources paying annual fees on a calendar year basis and an actual or mixed emissions basis: pay annual allowable based emission fees for each AAP no later than April 1 of each year pursuant to TAPCR 1200-03-26-.02(9)(d), except as allowed by TAPCR 1200-03-26-.02(9)(g)3.
TAPCR 1200-03-26-.02(9)(a)2(ii)

(4) Sources paying annual fees on a fiscal year basis and an actual or mixed emissions basis: for each AAP, pay an estimated 65% of the fee due no later than April 1 of the current fiscal year. The remainder of the fee for each annual accounting period is due no later than August 1 of each year pursuant to TAPCR 1200-03-26-.02(9)(d), except as allowed by TAPCR 1200-03-26-.02(9)(g)3.
TAPCR 1200-03-26-.02(9)(a)2(iii)

(5) Sources paying annual fees on an actual emissions basis: prepare an **actual emissions analysis** for each AAP and pay **actual based emission fees** pursuant to TAPCR 1200-03-26-.02(9)(d). The **actual emissions analysis** shall include:
(a) the completed **Fee Emissions Summary Table**,
(b) each **actual emissions analysis** required**,** and
(c) the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary's representative. The summary must include sufficient information for the Technical Secretary to determine the accuracy of the calculations. These calculations must be based on the Fee Year basis approved by the Technical Secretary (a state fiscal year [July 1 through June 30] or a calendar year [January 1 through December 31]). These records shall be used to complete the **actual emissions analyses** required by the above **Fee Emissions Summary Table**.
TAPCR 1200-03-26-.02(9)(g)2

(6) Sources paying annual fees on a Fee Choice of a mixed emissions basis: for all pollutants and all sources for which the permittee has chosen an actual emissions basis, prepare an

actual emissions analysis for each AAP and pay **actual based emission fees** pursuant to TAPCR 1200-03-26-.02(9)(d). The **actual emissions analysis** shall include:

(a) the completed **Fee Emissions Summary Table**,

(b) each **actual emissions analysis** required**,** and

(c) the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary's representative. The summary must include sufficient information for the Technical Secretary to determine the accuracy of the calculations. These calculations must be based on the Fee Year basis approved by the Technical Secretary (a state fiscal year [July 1 through June 30] or a calendar year [January 1 through December 31]). These records shall be used to complete the **actual emissions analysis**.

For all pollutants and all sources for which the permittee has chosen an allowable emissions basis, pay allowable based emission fees pursuant to TAPCR 1200-03-26-.02(9)(d).

TAPCR 1200-03-26-.02(9)(g)2

(7) When paying on an actual or mixed emissions basis, submit the **actual emissions analyses** at the time the fees are paid in full or earlier.

TAPCR 1200-03-26-.02(9)(g)2

(8) Include with each required AEAR report the following statement signed by the Responsible Official: *"I have reviewed this document in its entirety, and to the best of my knowledge, based on information and belief formed after reasonable inquiry, the statements and information contained in this document are true, accurate, and complete."*

TAPCR 1200-03-09-.02(11)(d)4

The annual fee due dates are specified in TAPCR 1200-03-26-.02(9)(a) and are dependent on the Responsible Official's choice of fee bases as described above. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within 15 days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8). Emissions for regulated pollutants shall not be double counted as specified in Condition A8(d) of this permit.

Payment of the fee due and the actual emissions analysis (if required) shall be submitted to the Technical Secretary at the following address:

Payment of Fee to:
Tennessee Department of Environment and Conservation
Division of Fiscal Services
Consolidated Fee Section – APC
Davy Crockett Tower, 6th Floor
500 James Robertson Parkway
Nashville, Tennessee 37243

and

Actual Emissions Analyses to:
A "Title V Emissions Summary Form" and the AEAR must be submitted electronically as directed by the Division.
Additional information can be found at
https://www.tn.gov/environment/air/inventory.html

TAPCR 1200-03-26-.02(3), (8), and (9), and TAPCR 1200-03-09-.02(11)(e)1(vii)

E2. **Reporting requirements**.

(a) **Semiannual reports.** Semiannual reports shall cover the six-month periods from **January 1** to **June 30** and from **July 1** to **December 31** of each calendar year and shall be submitted within 60 days after the end of each six-month period. Subsequent reports shall be submitted within 60 days after the end of each six-month period following the first report. The first semiannual report following issuance of this permit shall cover the following permits and reporting periods:

Permit Number	Reporting Period Begins	Reporting Period Ends
572862	1st day of SAR period (with year)	day before new permit issuance (with year)
581394	Issuance Date of new permit (with year)	end of SAR period (with year)

These semiannual reports shall include:

(1) Any monitoring and recordkeeping required by conditions ***E4-2, E4-3, E5-2, E5-3, E6-2, E7-2, E7-3, E8-2, E9-1, E9-2, E9-3, E10-2, E11-3, E11-4, E12-3, E12-4, E12-5, E13-2, E13-3, E20-2, E14-1, E14-2, E14-3, E15-2, E15-3, E16-2, E16-3, E16-4, E17-2, E17-3, E18-2, E19-2, E19-3, E20-3, E21-2, E22-2, and E22-3*** of this permit. A summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(2) The visible emission evaluation readings from condition ***E3-2, E7-4, E14-4*** of this permit if required. A summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(3) Identification of all instances of deviations from **ALL PERMIT REQUIREMENTS**. The record of deviations/excursions shall include, at a minimum, the time the deviation/excursion was discovered, the corrective action taken, and the time that the deviation/excursion was rectified.

These reports must be certified by a responsible official consistent with condition B4 of this permit and shall be submitted to The Technical Secretary at the address in Condition E2(b) of this permit.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

(b) **Annual compliance certification.** The permittee shall submit annually compliance certifications with each term or condition contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

(1) The identification of each term or condition of the permit that is the basis of the certification;

(2) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; Such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;

(3) The status of compliance with each term or condition of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in E2(b)2 above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** as defined below occurred; and

(4) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* "Excursion" shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** "Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

Annual compliance certifications shall cover the 12-month period from **January 1** to **December 31** and shall be submitted within 60 days after the end of each 12-month period. The first annual compliance certification following issuance of this permit shall cover the following permits and reporting periods:

Permit Number	Reporting Period Begins	Reporting Period Ends
572862	January 1, 2026	day before new permit issuance (with year)
581394	Issuance Date of new permit (with year)	December 31, 2026

These certifications shall be submitted to: TN APCD and EPA

Division of Air Pollution Control **Johnson City Environmental Field Office** **Division of Air Pollution Control** **2305 Silverdale Road** **Johnson City, TN 37601** **or** **apc.jcefo@tn.gov**	**and**	**Air Enforcement Branch** **U. S. EPA Region IV** **61 Forsyth Street, SW** **Atlanta, Georgia 30303** **or** **Through the EPA CDX** **(https://cdx.epa.gov/)**

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667
TAPCR 1200-03-09-.02(11)(e)3.(v)

E3. General Facility Requirements

E3-1. Identification of Responsible Official, Technical Contact, and Billing Contact

(a) The application that was utilized in the preparation of this permit is dated May 16, 2023, and signed by Responsible Official Tim Newton, Chief Operating Officer of the permitted facility. Notification was received March 3, 2026, that Ray Schmitt, Site Manager, is now the Responsible Official. If this person terminates employment or is assigned different duties and is no longer a Responsible Official for this facility as defined in part 1200-03-09-.02(11)(b)21 of the Tennessee Air Pollution Control Regulations, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Responsible Official and certification of truth and accuracy. All representations, agreement to terms and conditions, and covenants made by the former Responsible Official that were used in the establishment of the permit terms and conditions will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements, and/or covenants.

(b) The application that was utilized in the preparation of this permit is dated May 16, 2023, and identifies Sean Varner as the Principal Technical Contact for the permitted facility. If this person terminates employment or is assigned different duties and is no longer the Principal Technical Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Principal Technical Contact and certification of truth and accuracy.

(c) The application that was utilized in the preparation of this permit is dated May 16, 2023, and identifies Sean Varner as the Billing Contact for the permitted facility. If this person terminates employment or is assigned different duties and is no longer the Billing Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Billing Contact and certification of truth and accuracy.

E3-2. Visible Emissions Limitations – General Requirements

Visible emissions from the sources at this facility, unless otherwise noted, shall not exhibit greater than 10% opacity except for one six-minute period during any one-hour period and for no more than four six-minute periods in any 24-hour period. Visible emissions from these sources shall be determined by EPA Method 9, as published in 40 CFR 60, Appendix A (six-minute average). For all emission sources that use opacity matrix decision trees to comply with any visible emissions requirement, including emission sources for which visible emissions are not required by the opacity matrix, if the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-05-.01(3), TAPCR 1200-03-05-.03(6), TAPCR 1200-03-10-.02(1)(a), agreement letter dated June 15, 2017

Compliance Method: Compliance with this condition shall be determined by the procedures of the Division's opacity Matrix dated June 18, 1996, and amended September 11, 2013 (Attachment 1). Visible emissions evaluations are required as indicated in **Table E3-2**.

Table E3-2: Visible Emissions Evaluation Requirements			
Emission Source	**Description**	**VEE Required?**	**Reason for Exemption**
30-0001-05	Nine Ball Mills and Accessories	Yes	Not applicable
30-0001-06	Special Products Operation	Yes	Not applicable
30-0001-07	Grain Plant	Yes	Not applicable
30-0001-09	Material Blending	No	Allowable PM emissions less than 10 tons/year
30-0001-10	Powder Plant	Yes	Not applicable
30-0001-11	Crusher – Ingot Yard	No	Allowable PM emissions less than 10 tons/year
30-0001-25	Seventeen Electric Rotary Fusion Furnaces	Yes	Not applicable
30-0001-26	No. 1 Spherical Process	No	Allowable PM emissions less than 10 tons/year
30-0001-34	No. 2 Spherical Process	No	Allowable PM emissions less than 10 tons/year
30-0001-35	Sand Reclamation Process	No	Allowable PM emissions less than 10 tons/year
30-0001-36	Vibratory Grinding Drum	No	Allowable PM emissions less than 10 tons/year
30-0001-51	Pour Furnace No. 1	Yes	Not applicable
30-0001-52	No. 2 Bead Grinder, Ball Mills 7 & 8, Vibe Mills A side and B side, and Coarse Grain Packaging	No	Allowable PM emissions less than 10 tons/year
30-0001-53	Higgins Furnace	No	Allowable PM emissions less than 10 tons/year
30-0001-54	No. 1 Bead Grinder	No	Allowable PM emissions less than 10 tons/year
30-0001-55	Core Processing Operation	No	Allowable PM emissions less than 10 tons/year
30-0001-57	Pour Furnace #2	Yes	Not applicable
30-0001-60	Two Crushers for Zirconium Oxides	No	Allowable PM emissions less than 10 tons/year

E3-3. Data Entry and Retention

(a) For sources required to maintain monthly logs, all data, including all required calculations, must be entered in the log no later than 30 days from the end of the month for which the data is required.

(b) For sources required to maintain weekly logs, all data, including all required calculations, must be entered in the log no later than seven days from the end of the week for which the data is required.

(c) For sources required to maintain daily logs, all data, including all required calculations, must be entered in the log no later than seven days from the end of the day for which the data is required.

(d) Records of all repair and maintenance activities, as required by **Condition D15** or by the source-specific conditions of this permit, shall be recorded in a suitable permanent form and kept available for inspection by the Division. The date each maintenance and repair activity began shall be entered in the log no later than seven days following the start of the repair or maintenance activity, and the completion date shall be entered in the log no later than seven days after activity completion.

(e) Unless otherwise noted, all records required by any condition in Section E of this permit must be retained for a period of not less than five years, in accordance with condition B2. These records shall be kept available for inspection by the Technical Secretary or an authorized representative.

TAPCR 1200-03-09-.02(11)(e)1.(iii)(II)II

E3-4. Insignificant Activities

Insignificant activities identified by the permittee in the Title V Application are listed in **Table E3-4**. Additional insignificant activities may be added and operated at any time with the provision that a written notification shall be submitted to the Technical Secretary including an updated APC V.2 application form along with a truth, accuracy, and completeness statement signed by a responsible official. The permit may be updated to include additional insignificant activities by administrative amendment.

Table E3-4: Insignificant Activities

Activity	ESRN	Rule Citation
Sand Handling, Storage and Railcar Unloading	30-0001-31	1200-03-09-.04(5)(a)4.(i)
Propane Emergency Engine	30-0001-37	1200-03-09-.04(5)(a)4.(i)
95ZC Classifying System	30-0001-56	1200-03-09-.04(5)(a)4.(i)
Cyclone Classifying System and Fumed Silica Bagging Operation	30-0001-58	1200-03-09-.04(5)(a)4.(i)
Satellite Screening/Classifying System for Zirconia Products	30-0001-59	1200-03-09-.04(5)(a)4.(i)
Cyclone with Product Collector	N/A	1200-03-09-.04(5)(a)4.(i)
Zirconium Oxide Blending	N/A	1200-03-09-.04(5)(a)4.(i)
Screeners	N/A	1200-03-09-.04(5)(a)4.(i)
Sand Dryer	N/A	1200-03-09-.04(5)(a)4.(i)

Compliance Method: Compliance with this condition is based on the calculations provided in Appendix A of the application dated May 16, 2023, for all emission sources except 30-0147-20 (calculations for 30-0147-20 are provided in Appendix A of the application dated September 6, 2016).

E3-5. For all emission sources that use a baghouse to comply with the source-specific emission limits in this permit, the openings of the collection bins and the collected materials shall be covered prior to any transfer from the control device(s) so that the baghouse catch materials do not create a fugitive emissions problem while being disposed of or recycled.

TAPCR 1200-03-09-.03(8)

Compliance Method: Compliance shall be assured by annual certification, as required in **Condition E2(b)**.

30-0001-05 | **Source Description:**

Nine Ball Mills and Accessories: The mills are used to grind fused silica. Emissions are controlled by two baghouses:

Source	Vent ID	Nominal Flow (CFM)
Ball Mills 2, 3, and 4	D-410	14,000
Ball Mills 1, 5, 6, 7, 8, and 9	D-425	26,000

Conditions E4-1 through E4-3 apply to source 30-0001-05

E4-1. The stated throughput rate of this source is 18,000 pounds per hour (lb/hr). Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the capacity of the source. Documentation may include, but is not limited to, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E4-2. Particulate matter (PM) emitted from each baghouse shall not exceed 0.01 grains per dry standard cubic foot of stack gases (3.38 lb/hr).

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.0 inches of water column across each baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**)[1]. Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E4-3. Operating hours for this source shall not exceed 6,240 hours during any period of 12 consecutive months for ball mills 2, 3, 4, and 5 (baghouse D-410) and shall shall not exceed 6,240 hours during any period of 12 consecutive months for ball mills 1, 6, 7, 8, and 9[2] (baghouse D-425).

TAPCR 1200-03-09-.03(8) and the agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: The permittee shall record the actual operating hours of the ball mills during each calendar month and each period of 12 consecutive months (see **Attachment 3, Example Log #3**). These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

30-0001-06	**Source Description:**	**Special Products Operation:** This operation involves ingot breaking, primary, secondary, and tertiary crushing, and grinding and sizing of fused silica. Emissions from Source 06 are controlled by a single baghouse (DSP-1).

Vent ID	Nominal Flow (CFM)
DSP-1	38,000

Conditions E5-1 through E5-3 apply to source 30-0001-06

E5-1. The stated throughput rate of this source is 103,000 lb/hr. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the capacity of the source. Documentation may include, but is not limited to, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E5-2. PM emitted from this source shall not exceed 0.01 grains per dry standard cubic foot of stack gases (3.21 lb/hr).

[1] For all permit conditions that reference the example logs in Attachment 3, an alternative format that provides the same information shall be acceptable.

[2] Operation of one or more ball mills associated with either baghouse counts as one hour of operation for that group of ball mills.

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.0 inches of water column across the baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E5-3. Operating hours for this source shall not exceed 7,680 hours during any period of 12 consecutive months.

TAPCR 1200-03-09-.03(8) and the agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: The permittee shall record the actual operating hours of the source during each calendar month and each period of 12 consecutive months (see **Attachment 3, Example Log #3**). These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

30-0001-07	**Source Description:**	**Grain Plant:** Crushing, classifying, and screening operations of fused silica. Includes D Mill. Emissions are controlled by three baghouses:

Vent ID	Nominal Flow (CFM)
D-326	35,000
D-801	15,000
SD-7	35,000

Conditions E6-1 and E6-2 apply to source 30-0001-07

E6-1. The stated throughput rate of this source is 64,200 lb/hr. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the capacity of the source. Documentation may include, but is not limited to, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E6-2. PM emitted from this source shall not exceed the following limits (**Table E6-2**):

Table E6-2: PM Emission Limits for 30-0001-07

Baghouse ID	PM Emission Limits (grains per dry cubic foot of stack gases)
D-326	0.005
D-801	0.01
SD-7	0.005

TAPCR 1200-03-07-.01(5), agreement letter dated March 25, 2026 (Attachment 2)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) **Fabric Filters D-801 and SD-7, and D-326 (prior to modification):** The permittee shall maintain a minimum pressure drop of 1.0 inches of water column across the baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) **Fabric Filter D-326 (modified source):** The following requirements apply to Fabric Filter D-326 following modification of the source, as described in the application dated March 25, 2026. Prior to startup of the modified source, the permittee shall install a pressure gauge to measure the pressure drop (inches of water) across the baghouse. Upon startup of the modified source, the permittee shall operate the pressure gauge and shall compile 30 consecutive operating days of pressure drop readings across the baghouse. The designated person(s) shall note any relevant baghouse conditions/problems/concerns when recording the values. The records shall also include the initials of the person performing the pressure drop reading, any corrective action(s), along with the date, time, and any relevant comments. Days that the source is not in operation shall be noted. The permittee shall submit the pressure drop data, including a **proposed minimum pressure drop value** no later than 15 days after completion of the initial 30 consecutive operating days of pressure drop readings. Pressure drop readings shall be submitted to the following address:

Hard Copy:

Tennessee Department of Environment and Conservation
Division of Air Pollution Control
Davy Crockett Tower, 7th Floor
500 James Robertson Parkway
Nashville, TN 37243

or **e-mail transmittal:**
air.pollution.control@tn.gov

Upon submittal of the proposed minimum pressure drop, the permittee shall assure continuous compliance by maintaining the proposed minimum pressure drop across the baghouse (unless notified by the Division that an alternate pressure drop must be used), except for 48 hours following replacement of bags. The pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

30-0001-09	Source Description:	**Material Blending:** Blend area. Emissions are controlled by one baghouse:

Vent ID	Nominal Flow (CFM)
D-819	7,500

Conditions E7-1 through E7-4 apply to source 30-0001-09

E7-1. The stated throughput rate of this source is 60,000 lb/hr. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the capacity of the source. Documentation may include, but is not limited to, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E7-2. PM emitted from this source shall not exceed 0.02 grains per dry standard cubic foot of stack gases (1.27 lb/hr).

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.0 inches of water column across the baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E7-3. Operating hours for this source shall not exceed 4,368 hours during any period of 12 consecutive months.

TAPCR 1200-03-09-.03(8) and the agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: The permittee shall record the actual operating hours of the source during each calendar month and each period of 12 consecutive months (see **Attachment 3, Example Log #3**). These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E7-4. Visible emissions from this source shall not exceed 20% opacity as specified in TAPCR 1200-03-05-.01 (aggregate count). Visible emissions shall be determined by Tennessee Visible Emission Evaluation Method 2 as adopted by the Tennessee Air Pollution Control Board on August 24, 1984.

Compliance Method: Compliance with this condition shall be determined by the procedures of the Division's opacity Matrix dated June 18, 1996, and amended September 11, 2013 (Attachment 1).

30-0001-10	**Source Description:**	**Powder Plant:** The Powder Plant consists of two continuous ball mills, air classifiers, five screens, and a packaging operation. Emissions are controlled by a single baghouse. **Vent ID** / **Nominal Flow (CFM)** S-6 / 30,000

Conditions E8-1 and E8-2 apply to source 30-0001-10

E8-1. The stated throughput rate of this source is 20,000 lb/hr. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the capacity of the source. Documentation may include, but is not limited to, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E8-2. PM emitted from this source shall not exceed 0.01 grains per dry standard cubic foot of stack gases (2.53 lb/hr).

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.0 inches of water column across the baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

30-0001-11	Source Description:	**Crusher – Ingot Yard:** Ingot crushing operation. Emissions are controlled by a single baghouse.

Vent ID	Nominal Flow (CFM)
D-120	24,000

Conditions E9-1 through E9-3 apply to source 30-0001-11

E9-1. The maximum material input rate for this source shall not exceed 60,000 lb/hr on a daily average basis. Should the permittee need to modify the source(s) in a manner that increases the maximum material input rate, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: The permittee shall maintain a daily log of the actual amount of material input and the hours of operation (see **Attachment 3, Example Log #4**). The log shall be retained in accordance with **Condition E3-3** of this permit.

E9-2. PM emitted from this source shall not exceed 0.01 grains per dry standard cubic foot of stack gases (2.03 lb/hr).

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.0 inches of water column across the baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E9-3. Operating hours for this source shall not exceed 2,800 hours during any period of 12 consecutive months.

TAPCR 1200-03-09-.03(8) and the agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: The permittee shall record the actual operating hours of the source during each calendar month and each period of 12 consecutive months (see **Attachment 3, Example Log #3**). These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

30-0001-25	**Source Description:**	**Seventeen Electric Rotary Fusion Furnaces:** Sand is unloaded from railcars into a feed hopper and conveyor belt. The sand is transported to the fusion furnaces, and the fusion furnaces make a fused silica ingot which is cooled and processed in primary and secondary crushers. Emissions from the furnaces are controlled by five baghouses.

Vent ID	Nominal Flow (CFM)
D-1	20,000
D-2	20,000
D-3	20,000
D-4	20,000
D-6	20,000

Conditions E10-1 and E10-2 apply to source 30-0001-25

E10-1. The maximum material input rate of this source is 3,500 lb/hr for each furnace (59,500 lb/hr total for all furnaces). Should the permittee need to modify the sources in a manner that increases the maximum material input rate, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V), as applicable, prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the maximum material input rate for the source. Documentation shall include, but is not limited to, manufacturer's specifications, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative. This documentation shall be maintained for the life of the source.

E10-2. PM emitted from each baghouse shall not exceed 0.01 grains per dry standard cubic foot of stack gases (8.44 lb/hr total from all baghouses).

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 0.5 inches of water column across baghouse D-2[3] and a minimum pressure drop of 1.0 inches of water across all other baghouses associated with this source, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

[3] See the Administrative Amendment request dated June 1, 2023 (Title V Operating Permit 572862).

30-0001-26	**Source Description:**	**No. 1 Spherical Process:** One 14.8 MMBtu/hr propane-fired furnace used to sphericalize silica sand or fused silica powder. Emissions are controlled by a single baghouse. **Vent ID** / **Nominal Flow (CFM)** D-2001 / 30,000

Conditions E11-1 through E11-6 apply to source 30-0001-26

E11-1. The stated heat input rate of the furnace is 14.8 MMBtu/hr. Should the permittee need to modify the furnace in a manner that increases the stated heat input rate, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the stated heat input rate for the furnace. Documentation shall include, but is not limited to, manufacturer's specifications, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative. This documentation shall be maintained for the life of the furnace, except that fuel purchase records shall be maintained as required by **Condition E3-3**.

E11-2. Only propane shall be used as fuel for the furnace. Should the permittee need to modify the furnace to allow the use of a fuel other than propane, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: Compliance shall be assured by annual certification, as required in **Condition E2(b)**.

E11-3. PM emitted from this source shall not exceed 0.01 grains per dry standard cubic foot of stack gases (2.53 lb/hr).

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.0 inches of water column across the baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E11-4. Operating hours for this source shall not exceed 4,800 hours during any period of 12 consecutive months.

TAPCR 1200-03-09-.03(8) and the agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: The permittee shall record the actual operating hours of the source during each calendar month and each period of 12 consecutive months (see **Attachment 3, Example Log #3**). These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E11-5. The following emission rates are established for fee purposes (**Table E11-5**):

Table E11-5: SO_2, CO, VOC, and NO_X Fee Emissions for 30-0001-26	
Pollutant	**Emission Limit**
SO_2	0.04 tons/year
CO	2.91 tons/year
VOC	0.39 tons/year
NO_X	5.05 tons/year

TAPCR 1200-03-26-.02(9)

Compliance Method: Compliance with this condition shall be assured by compliance with the fee requirements of **Condition E1** of this permit.

E11-6. The stated throughput rate of this source is included in the confidential application dated March 27, 2001 (No. 2 Spherical Process, 30-0001-34)[4]. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8)

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the capacity of the source. Documentation may include, but is not limited to, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

30-0001-34	**Source Description:**	**No. 2 Spherical Process:** One 14.8 MMBtu/hr propane-fired furnace used to sphericalize silica sand or fused silica powder. Emissions are controlled by a single baghouse.

Vent ID	**Nominal Flow (CFM)**
DS2-01	10,000

Conditions E12-1 through E12-6 apply to source 30-0001-34

E12-1. The stated heat input rate of the furnaces is 14.8 MMBtu/hr. Should the permittee need to modify the furnace in a manner that increases the stated heat input rate, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the stated heat input rate for the furnace. Documentation shall include, but is not limited to, manufacturer's specifications, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative. This documentation shall be maintained for the life of the furnace, except that fuel purchase records shall be maintained as required by **Condition E3-3**.

E12-2. Only propane shall be used as fuel for the furnace. Should the permittee need to modify the furnace to allow the use of a fuel other than propane, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

[4] The permit writer verified that sources 26 and 34 have the same throughput capacity during a site visit conducted on September 3, 2026.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: Compliance shall be assured by annual certification, as required in **Condition E2(b)**.

E12-3. The stated throughput rate of this source is given in the confidential application dated March 27, 2001. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated March 27, 2001, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the capacity of the source. Documentation may include, but is not limited to, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E12-4. PM emitted from this source shall not exceed 0.01 grains per dry standard cubic foot of stack gases (0.61 lb/hr).

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.0 inches of water column across the baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E12-5. Operating hours for this source shall not exceed 4,800 hours during any period of 12 consecutive months.

TAPCR 1200-03-09-.03(8) and the agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: The permittee shall record the actual operating hours of the source during each calendar month and each period of 12 consecutive months (see **Attachment 3, Example Log #3**). These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E12-6. The following emission rates are established for fee purposes (**Table E12-6**):

Table E12-6: SO_2, CO, VOC, and NO_X Fee Emissions for 30-0001-34

Pollutant	Emission Limit
SO_2	0.04 tons/year
CO	2.91 tons/year
VOC	0.39 tons/year
NO_X	5.05 tons/year

TAPCR 1200-03-26-.02(9)

Compliance Method: Compliance with this condition shall be assured by compliance with the fee requirements of **Condition E1** of this permit.

30-0001-35	**Source Description:**	**Sand Reclamation Process:** This operation involves recovering sand from electric fusion furnaces. This process includes mechanical conveyors and screening operations. Emissions are controlled by a single baghouse. **Vent ID** / **Nominal Flow (CFM)** D-351 / 20,000

Conditions E13-1 through E13-3 apply to source 30-0001-35

E13-1. The stated throughput rate of this source is 12,500 lb/hr. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the capacity of the source. Documentation may include, but is not limited to, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E13-2. PM emitted from this source shall not exceed 0.01 grains per dry standard cubic foot of stack gases (1.69 lb/hr).

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.0 inches of water column across the baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E13-3. Operating hours for this source shall not exceed 6,240 hours during any period of 12 consecutive months.

TAPCR 1200-03-09-.03(8) and the agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: The permittee shall record the actual operating hours of the source during each calendar month and each period of 12 consecutive months (see **Attachment 3, Example Log #3**). These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

30-0001-36	**Source Description:**	**Vibratory Grinding Drum:** Vibratory grinding drum. Secondary equipment includes elevators, product holding tanks, and conveyors. Emissions are controlled by two baghouses.

Vent ID	Nominal Flow (CFM)
E-1	8,000
D-300	7,000

Conditions E14-1 through E14-4 apply to source 30-0001-36

E14-1. The maximum material input rate for this source shall not exceed 50,000 lb/hr on a daily average basis. Should the permittee need to modify the source(s) in a manner that increases the maximum material input rate, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: The permittee shall maintain a daily log of the actual amount of material input and the hours of operation (see **Attachment 3, Example Log #4**). The log shall be retained in accordance with **Condition E3-3** of this permit.

E14-2. PM emitted from this source shall not the following limits (**Table E14-2-1**):

Table E14-2-1: PM Emission Limits for 30-0001-36

Vent ID	PM Allowable Emission Rate	Rule Citation
E-1	0.02 grains per dry standard cubic foot of stack gases (1.17 lb/hr).	TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2)
D-300	0.01 grains per dry standard cubic foot of stack gases (0.60 lb/hr).	TAPCR 1200-03-07-.01(5), agreement letter dated July 22, 2022 (Attachment 2)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.0 inches of water column across each baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E14-3. Operating hours for this source shall not exceed 6,240 hours during any period of 12 consecutive months.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: The permittee shall record the actual operating hours of the source during each calendar month and each period of 12 consecutive months (see **Attachment 3, Example Log #3**). These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E14-4. Visible emissions from this source shall not exhibit greater than 20% opacity except for one six-minute period per any one-hour period and for no more than four six-minute periods in any 24-hour period. Visible emissions from these sources shall be determined by EPA Method 9, as published in 40 CFR 60, Appendix A (six-minute average). If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

TAPCR 1200-03-05-.01(1), TAPCR 1200-03-05-.03(6), TAPCR 1200-03-10-.02(1)(a)

Compliance Method: Compliance with this condition shall be determined by the procedures of the Division's opacity Matrix dated June 18, 1996, and amended September 11, 2013 (Attachment 1). Visible emissions evaluations are required as indicated in **Table E3-2**.

30-0001-51	**Source Description:**	**Pour Furnace No. 1:** Fusion of Zirconium Silicate mineral oxides by electric arc furnace. Emissions are controlled by a single baghouse. Formerly 30-0147-01.

Vent ID	Nominal Flow (CFM)
DC #9	75,000

Conditions E15-1 through E15-3 apply to source 30-0001-51

E15-1. The stated throughput rate of this source is 4,250 lb/hr. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the capacity of the source. Documentation may include, but is not limited to, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E15-2. PM emitted from this source shall not exceed 0.01 grains per dry standard cubic foot of stack gases (5.08 lb/hr).

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2, see previous source number 30-0147-01)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 0.5 inches of water column across each baghouse chamber, except for 48 hours following replacement of bags. For each baghouse chamber, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E15-3. Operating hours for this source shall not exceed 8,496 hours during any period of 12 consecutive months.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: The permittee shall record the actual operating hours of the source during each calendar month and each period of 12 consecutive months (see **Attachment 3, Example Log #3**). These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

30-0001-52	**Source Description:**	**No. 2 Bead Grinder, Ball Mills 7 & 8, Vibe Mills A side and B side, and Coarse Grain Packaging:** Includes No. 2 Bead Grinder System for Mineral Oxides, Rotary Ball Mills 7 & 8 to Process Zirconium Oxides, Vibe Mills A side and B side, and Coarse Grain Packaging. Emissions are controlled by a single baghouse. Vibe Mills have two product collectors (E-0018A and E-0018B) that exhaust outside the building. Formerly 30-0147-04, 13, 17, 18.

Vent ID	Nominal Flow (CFM)
DC #4	30,000
E-0018A	1,500
E-0018B	1,500

Conditions E16-1 through E16-4 apply to source 30-0001-52

E16-1. The stated throughput rate of this system is 22,000 pounds per hour, not including isopropyl alcohol. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the design capacity for the No. 2 bead grinder, ball mills, vibe mills and coarse grain packaging. Documentation shall include, but is not limited to, manufacturer's specifications, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E16-2. The maximum input rate of isopropyl alcohol for this source shall not exceed 8,580 gallons during any period of 12 consecutive months. Should the permittee need to modify the source(s) in a manner that increases the maximum material input rate a Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8), Condition S1-1.B of construction permit 980980.

Compliance Method: Compliance with this condition shall be assured by compliance with the recordkeeping requirements of **Condition E16-4.**

E16-3. PM emitted from this source shall not exceed the following limits (**Table E16-3**):

Table E16-3: PM Allowable Emissions, 30-0001-52

Source Description	PM Emission Limit	Rule Citation
Rotary Ball Mills 7 and 8, No. 2 Bead Grinder System, and Coarse Grain Packaging (Baghouse DC #4)	0.005 grains per dry standard cubic foot of exhaust gases and 1.27 lb/hr	TAPCR 1200-03-07-.01(5), agreement letter dated August 27, 2021, (Attachment 2). Condition S1-4.A of construction permit 980980.
Vibe Mill Product Collectors	0.02 grains per dry standard cubic foot of exhaust gases (0.50 lb/hr, total for both product collectors)	TAPCR 1200-03-07-.04(1)

Compliance Method (Baghouse DC #4): This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.0 inches of water column across each baghouse chamber, except for 48 hours following replacement of bags. For each baghouse chamber, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

Compliance Method (Product Collectors E-0018A and E-0018B): For baghouses with an exhaust gas flow rating of 2,000 actual cubic feet per minute or less, the permittee shall perform and record weekly visual inspections of the exterior of the baghouse and the baghouse ductwork, including the baghouse exhaust, and inspect and replace bags/filters as needed. The permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical if the permittee finds that an abrasion hole and/or emissions problem, and/or plugging problem has developed during an inspection of the baghouses. Identification of an abrasion hole and/or emissions problem and/or plugging problem and corrective action(s) shall be noted in the weekly inspection records. Records of inspections shall be maintained in accordance with **Attachment 3, Example Log #1** (except that a daily pressure drop reading is not required), or in an alternative format that provides the same information, and shall also include the initials of the person performing the inspection(s) and corrective action(s), along with the date, time, and any relevant comments. Days that the source is not in operation shall be noted. These records shall be retained in accordance with **Condition E3-3** of this permit.

E16-4. VOC emitted from this source shall not exceed 27.66 tons during any period of 12 consecutive months.

TAPCR 1200-03-07-.07(2) and the application dated May 11, 2023, from the permittee. Condition S1-4.A of construction permit 980980.

Compliance Method: The permittee shall calculate the actual quantity of VOC emitted during each calendar month and each period of 12 consecutive months and shall maintain records of the emissions (see **Table E16-4** for example log). These logs shall be retained in accordance with **Condition E3-3**.

Table E16-4: Monthly VOC Log for 30-0001-52

Month:		**Year:**				
Material Name	**Material Density (lb/gal)**	**Current Month IPA Usage (gallons)**	**VOC Content (lb/gal)**	**Current Month VOC Emissions (tons)**	**12-Month Total IPA Usage (gallons) , See Note**	**12-Month Total VOC Emissions (tons), See Note**

Note: The 12-consecutive month total is the sum of the current month usage plus the usage for the previous 11 months. If data is not available for the 11 months preceding the initial use of the table, this value will be equal to the value for tons per month. For the second month, it will be the sum of the first month and the second month. Indicate in parentheses the number of months summed [i.e., 6 (2) represents 6 tons emitted in 2 months].

30-0001-53	**Source Description:**	**Higgins Furnace:** Includes zirconium silicate and/or mineral oxide production with electric arc furnace. Emissions are controlled by a single baghouse.

Vent ID	Nominal Flow (CFM)
DC #6	35,000

Conditions E17-1 through E17-3 apply to source 30-0001-53

E17-1. The stated throughput rate of this system is 90,000 pounds per hour. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the design capacity for the No. 2 bead grinder, ball mills, vibe mills and coarse grain packaging. Documentation shall include, but is not limited to, manufacturer's specifications, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E17-2. PM emitted from this source shall not exceed 0.01 grains per dry standard cubic foot of stack gases (2.47 lb/hr).

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2, see previous source number 30-0147-06)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.5 inches of water column across the baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E17-3. Operating hours for this source shall not exceed 7,200 hours during any period of 12 consecutive months.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: The permittee shall record the actual operating hours of the source during each calendar month and each period of 12 consecutive months (see **Attachment 3, Example Log #3**). These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

30-0001-54	**Source Description:**	**No. 1 Bead Grinder:** No. 1 Bead grinding system for mineral oxides, with a baghouse for PM emission control.

Vent ID	Nominal Flow (CFM)
DC #1	31,000

Conditions E18-1 and E18-2 apply to source 30-0001-54

E18-1. The stated throughput rate of this system is 38,000 pounds per hour. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the design capacity for the No. 2 bead grinder, ball mills, vibe mills and coarse grain packaging. Documentation shall include, but is not limited to, manufacturer's specifications, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E18-2. PM emitted from this source shall not exceed 0.0054 grains per dry standard cubic foot of baghouse exhaust gases and 1.39 lb/hr.

TAPCR 1200-03-07-.01(5) and the agreement letter dated August 27, 2021, from the permittee (Attachment 2).

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.5 inches of water column across the baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

30-0001-55	**Source Description:**	**Core Processing Operation:** Core processing operation; grinding and sizing of mineral oxides with a single baghouse for particulate matter emission control.

Vent ID	Nominal Flow (CFM)
DC #7	18,000

Conditions E19-1 through E19-3 apply to source 30-0001-55

E19-1. The stated throughput rate of this system is 5,000 pounds per hour. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the design capacity for the core processing operation. Documentation shall include, but is not limited to, manufacturer's specifications, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E19-2. PM emitted from this source shall not exceed 0.01 grains per dry standard cubic foot of stack gases (1.52 lb/hr).

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2, see previous source number 30-0147-10)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.0 inches of water column across the baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E19-3. Operating hours for this source shall not exceed 4,320 hours during any period of 12 consecutive months.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: The permittee shall record the actual operating hours of the source during each calendar month and each period of 12 consecutive months (see **Attachment 3, Example Log #3**). These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

30-0001-56	**Source Description:**	**Classification and Packaging System:** Classification and packaging system for mineral oxides (Rotary Ball Mills 1-3). Emissions are controlled by a single baghouse.

Vent ID	Nominal Flow (CFM)
DC #8	10,000

Conditions E20-1 through E20-3 apply to source 30-0001-56

E20-1. The stated throughput rate of this system is 5,000 pounds per hour. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the design capacity for the core processing operation. Documentation shall include, but is not limited to, manufacturer's specifications, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E20-2. PM emitted from this source shall not exceed 0.01 grains per dry standard cubic foot of stack gases (0.84 lb/hr).

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2, see previous source number 30-0147-11)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.0 inches of water column across the baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E20-3. Operating hours for this source shall not exceed 4,320 hours during any period of 12 consecutive months.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: The permittee shall record the actual operating hours of the source during each calendar month and each period of 12 consecutive months (see **Attachment 3, Example Log #3**). These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

30-0001-57	Source Description:	**Pour Furnace #2:** This operation involves the fusion of Zirconium Silicate mineral oxides in an electric arc furnace. The application identifies two distinct operating modes for this emission source: refining zirconium silicate (Mode 1) and melting zirconium (Mode 2). Emissions are controlled by three cyclones operating in parallel and a baghouse with two fans. Formerly 30-0147-12.

Vent ID	Nominal Flow (CFM)
DC #11	120,000 (Mode 1, both fans operating)
	60,000 (Mode 2, one fan operating)

Conditions E21-1 and E21-2 apply to source 30-0001-57

E21-1. The stated throughput rate of this system is 6,000 lb/hr when operating in Mode 1 and 6,000 lb/hr when operating in Mode 2. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the design capacity for the core processing operation. Documentation shall include, but is not limited to, manufacturer's specifications, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E21-2. PM emitted from this source shall not exceed 0.0075 grains per dry standard cubic foot of stack gases (6.50 lb/hr).

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2)

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 3.5 inches of water column across the baghouse when two fans are running (Mode 1) or 2.0 inches of water column across the baghouse when one fan is running (Mode 2), except for 48 hours following replacement of bags[5]. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #2**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #2**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

[5] See the Administrative Amendment request dated April 2, 2024 (Title V Operating Permit 572862).

30-0001-60	**Source Description:**	**Two Crushers for Zirconium Oxides:** This operation includes two crushers for sizing of zirconium oxides with a baghouse for product collections. Formerly 30-0147-24.

Vent ID	Nominal Flow (CFM)
DC #21	35,000

Conditions E22-1 through E22-3 apply to source 30-0001-60

E22-1. The stated throughput rate of this system is 10,833 pounds per hour. Should the permittee need to modify the source in a manner that increases the capacity, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: On and after January 1, 2027, the permittee shall maintain documentation to demonstrate the design capacity for the core processing operation. Documentation shall include, but is not limited to, manufacturer's specifications, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

E22-2. PM emitted from this source shall not exceed 0.01 grains per dry standard cubic foot of stack gases (2.37 lb/hr).

TAPCR 1200-03-07-.01(5), agreement letter dated June 15, 2017 (Attachment 2)[6]

Compliance Method: This process shall not be operated without the use of the associated air pollution control devices. The baghouses shall be maintained, kept in good operating condition, and inspected to ensure compliance with the applicable PM limit, as follows:

(1) The permittee shall maintain a minimum pressure drop of 1.0 inches of water column across the baghouse, except for 48 hours following replacement of bags. For each baghouse, the pressure drops shall be recorded once daily in a log when the source is in operation (see **Attachment 3, Example Log #1**). Days when the source is not operating shall be noted in the log. For lower pressure drop readings resulting from replacement of bags, the permittee shall record the deviations in the log. Due allowance shall be made for lower pressure drop readings which follow the replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that the lower readings resulted from bag replacement. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

(2) The permittee shall conduct weekly visual inspections of the exterior of the baghouse(s) and the baghouse ductwork, including the baghouse exhaust, and record the inspections in a log that includes the date and time of the inspection (see **Attachment 3, Example Log #1**). If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken, including the date and time of initiation and completion of all corrective actions, in the log. These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

E22-3. Operating hours for this source shall not exceed 6,570 hours during any period of 12 consecutive months.

TAPCR 1200-03-09-.03(8) and the application dated May 16, 2023, from the permittee.

Compliance Method: The permittee shall record the actual operating hours of the source during each calendar month and each period of 12 consecutive months (see **Attachment 3, Example Log #3**). These records shall be maintained in accordance with **Condition E3-3** of this permit**.**

END OF PERMIT NUMBER 581394

[6] 30-0147-24 did not have an assigned emission point when the agreement letter was submitted, and the letter identifies this source as "30-0147 – construction permit application" and baghouse ID DC #21. Construction permit 972874 was issued August 10, 2017, for source 30-0147-24.

ATTACHMENT 1
OPACITY MATRIX DECISION TREES FOR VISIBLE EMISSION EVALUATION METHODS 2 AND 9 DATED SEPTEMBER 11, 2013

Decision Tree PM for Opacity for
Sources Subject to Rule 1200-03-05-.01
Utilizing TVEE Method 2

Notes:

PM = Periodic Monitoring required by 1200-03-09-.02(11)(e)(iii).

This Decision Tree outlines the criteria by which major sources can meet the periodic monitoring and testing requirements of Title V for demonstrating compliance with the visible emission standard in Rule 1200-03-05-.01. It is not intended to determine compliance requirements for EPA's Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission unit using this Decision Tree to determine the PMT required.

Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emission Evaluations (VEEs) are to be conducted utilizing Tennessee Visible Emission Evaluation Method 2. The observer must be properly certified according to the criteria specified in EPA Method 9 to conduct TVEE Method 2 evaluations.

Typical Pollutants
Particulates, VOC, CO, SO_2, NO_x, HCl, HF, HBr, Ammonia, and Methane.

Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

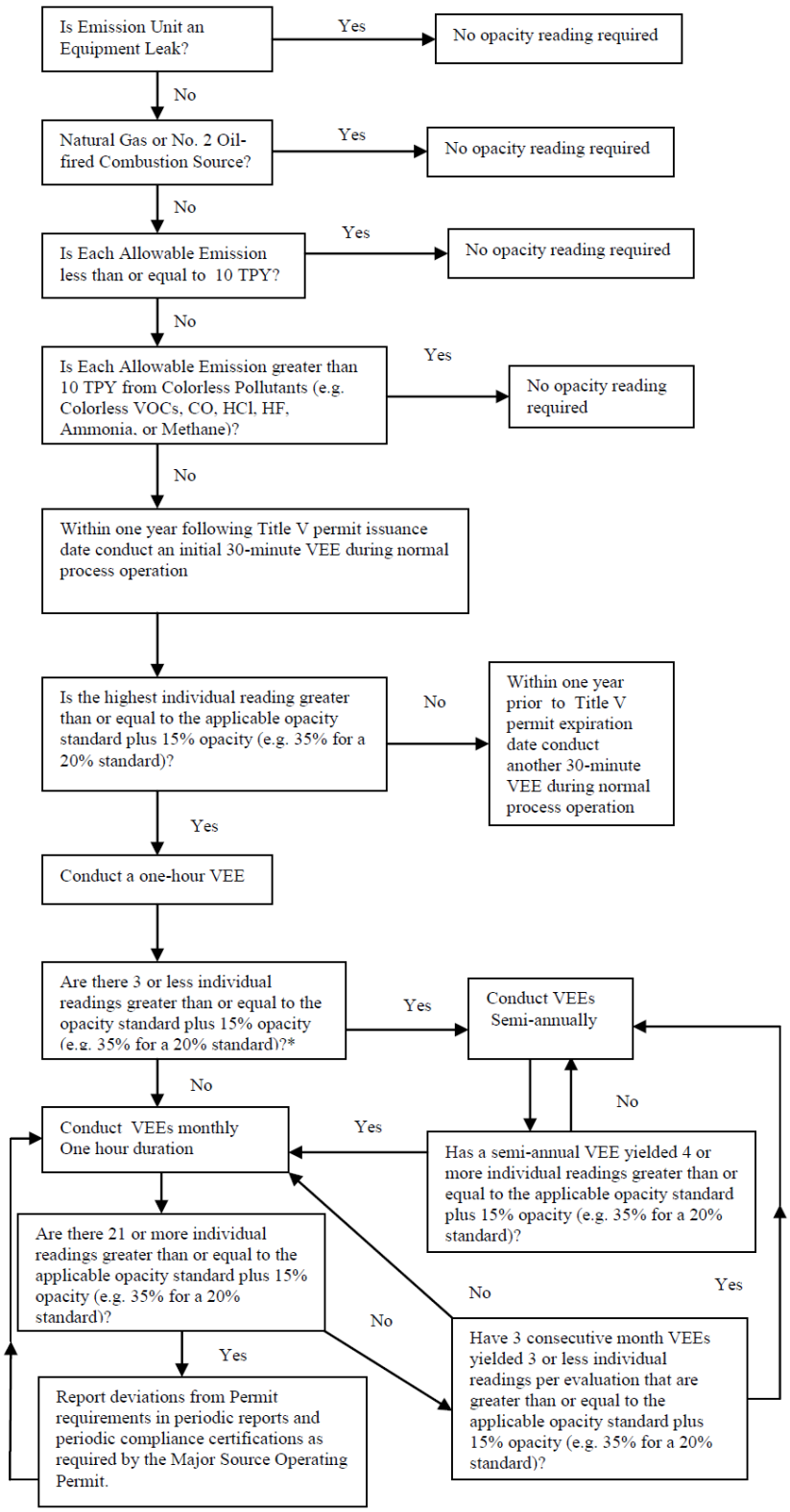
A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

Reader Error
TVEE Method 2: The TAPCD declares non-compliance when 21 observations are read at the standard plus 15% opacity (e.g. 35% for a 20% standard).

*The rationale for this is the fact that Rule 1200-03-05-.01 allows for an exemption of 5 minutes (20 readings) per hour and up to 20 minutes (80 readings) per day. With 4 or more excessive individual readings per hour the possibility of a daily exceedance exists.

Note: A company could mutually agree to have all of its sources regulated by EPA Method 9. Caution: Agreement to use Method 9 could potentially place some sources in non-compliance with visible emission standards. Please be sure before you agree.

Dated June 18, 1996
Amended September 11, 2013



Decision Tree PM for Opacity for Sources Utilizing EPA Method 9*

Notes:

PM = Periodic Monitoring required by 1200-03-09-.02(11)(e)(iii).

This Decision Tree outlines the criteria by which major sources can meet the periodic monitoring and testing requirements of Title V for demonstrating compliance with the visible emission standards set forth in the permit. It is not intended to determine compliance requirements for EPA's Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission unit using this Decision Tree to determine the PM required.*

Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emission Evaluations (VEEs) are to be conducted utilizing EPA Method 9. The observer must be properly certified to conduct valid evaluations.

Typical Pollutants
Particulates, VOC, CO, SO_2, NO_x, HCl, HF, HBr, Ammonia, and Methane.

Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

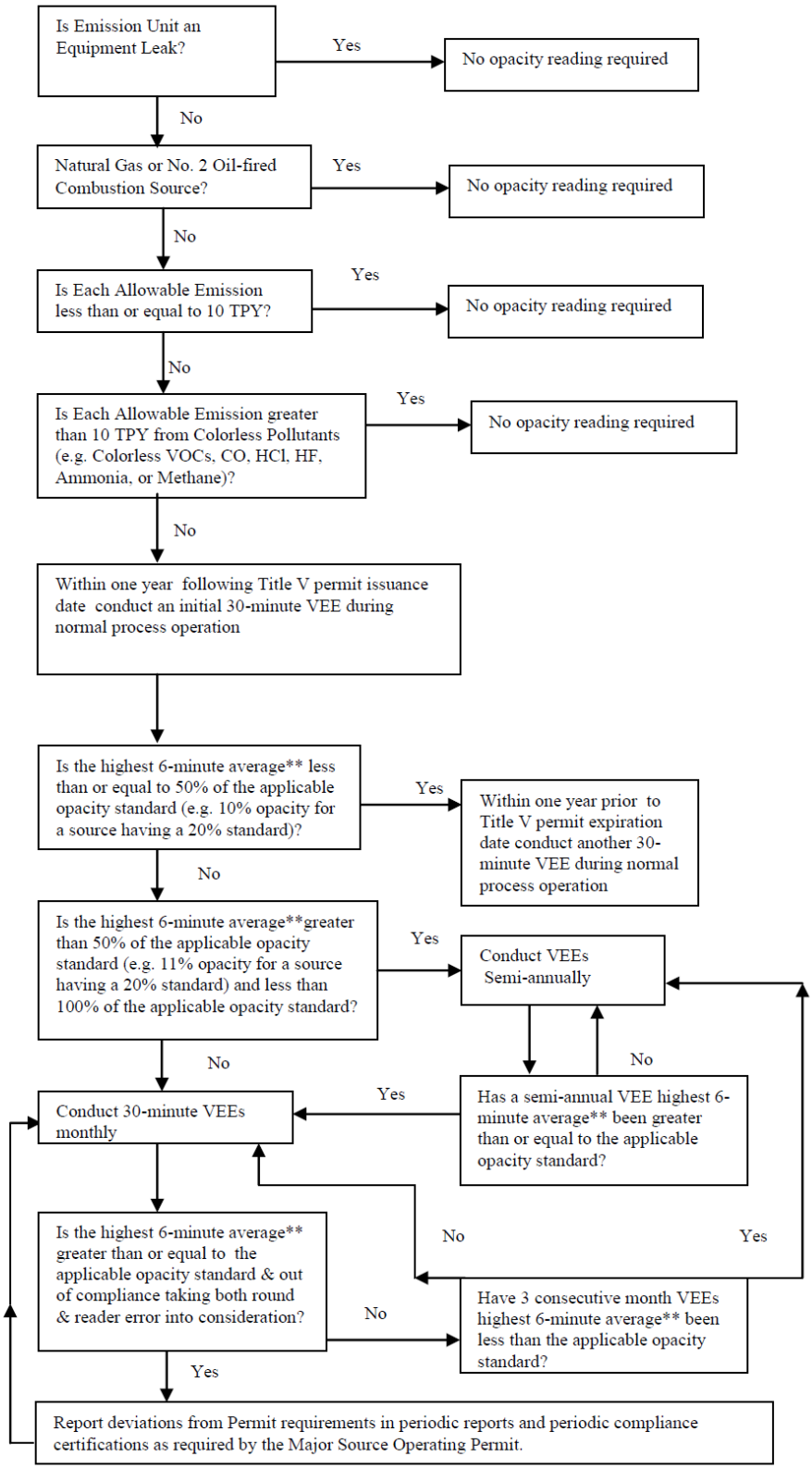
Reader Error
EPA Method 9, Non-NSPS or NESHAPS stipulated opacity standards:
The TAPCD guidance is to declares non-compliance when the highest six-minute average** exceeds the standard plus 6.8% opacity (e.g. 26.8% for a 20% standard).

EPA Method 9, NSPS or NESHAPS stipulate opacity standards:
EPA guidance is to allow only engineering round. No allowance for reader error is given.

*Not applicable to Asbestos manufacturing subject to 40 CFR 61.142

**Or second highest six-minute average, if the source has an exemption period stipulated in either the regulations or in the permit.

Dated June 18, 1996
Amended September 11, 2013



ATTACHMENT 2
AGREEMENT LETTERS

June 15, 2017

Michelle Owenby
Division of Air Pollution Control
Tennessee Department of Environment & Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Subject: Imerys Fused Minerals Greeneville, Inc. (formerly C-E Minerals)
ESRN 30-0001
Permit No. 566332
Title V Renewal Application

Dear Ms. Owenby:

Enclosed for your review and consideration is Imerys Fused Minerals' (Imerys) Title V Permit Renewal application for Title V permit number 566332 for its Greeneville, Tennessee facility, located at 109 Coile Street. With this timely application, Imerys will continue to operate under the current permit until a new operating permit is issued.

This application includes minor modifications that have been made since the permit was issued on December 14, 2012. The modifications include the following:

Minor Modification #1: Addition of new dust collector (baghouse D-5) to the screening operations.

Minor Modification #2: Revised CAM Plan Section 3.1, Part III(C): QA/QC Practices and Criteria

Minor Modification #3: Addition of fifth baghouse for source 25. Addition of vibratory grinding drum.

Imerys operates a separate facility adjacent to the facility referenced above. The adjacent facility has ESRN 30-0147 and Conditional Major Permit No. 461018P. Imerys has decided to combine these two facilities - Conditional Major facility internally known as Zirconia (ESRN 30-0147) and the Title V facility internally known as TECO (ESRN 30-0001) - into one Title V permit. Imerys understands this is the correct permitting scenario due to the facilities being "located on one or more contiguous or adjacent properties, and are under common control of the same person," and having the same two-digit SIC code as cited in the definition of "Major source" in Tennessee Air Pollution Control regulations.

Source 30-0001-07 at the TECO facility is currently described as the Grain Plant with 6 total baghouses for particulate emission control. This single source is more accurately four (4) individual sources that have been grouped together. The following is a list of the sources as they should be permitted.

30-0001-07 Grain Plant controlled by baghouses D-300, D-326, and D-801
30-0001-XX Blend Area controlled by baghouse D-819
30-0001-XX Crusher at the Ingot Yard controlled by baghouse D-120
30-0001-XX Sand Screening controlled by baghouse D-5

Imerys requests that the Grain Plant, Blend Area, Crusher at the Ingot Yard, and Sand Screening be listed as separate emission sources.

The facility does not operate all sources 8,760 hours per year, therefore, Imerys accepts an operating hours limitation to reduce the potential annual emissions for the sources shown in the table below. Sources not listed are calculated based on 8,760 hours per year.

Emission Source I.D.	Emission Source Equipment Description	Hours of Operation
30-0001-05	Nine (9) Ball Mills and Accessories	6240
30-0001-06	Special Products Operation	7680
30-0001-07	(BH's D-300, D-326, and D-801) Current Grain Plant	7920
30-0001-Blend Area	(BH D-819) Formerly part of Grain Plant	3120
30-0001-Crusher - Ingot Yard	(BH D-120) Formerly part of Grain Plant	2800
30-0001-Sand Screening for sand reclaim	(BH D-5) Formerly part of Grain Plant	6240
30-0001-10	Powder Plant	8400
30-0001-25	Fifteen (15) Electric Rotary Fusion Furnaces	8400
30-0001-26	No. 1 Spherical Process	4800
30-0001-34	No. 2 Spherical Process	4800
30-0001-35	Sand Reclamation Process	6240
30-0001-36	Vibratory Grinding Drum	6240
30-0001	Emergency Generator	500
30-0147-01	Pour Furnace #1	8496
30-0147-04 & 13	No. 2 Bead Grinder and Ball Mills 7 & 8	2832
30-0147-06	Zir Silicate or Mineral Oxide Production	7200

Emission Source I.D.	Emission Source Equipment Description	Hours of Operation
30-0147-09	No. 1 Bead Grinder and Crusher	2880
30-0147-10	Core Processing (grinding and sizing of Zir Oxides)	4320
30-0147-11	Classification and Packaging System	4320
30-0147-15	Cyclone Classifying	7920
30-0147-17	Coarse Grain packaging	3120
30-0147-18	Vibra Mills A and B	8400
30-0147-19	Satellite Screening/ Classifying System	3120
30-0147 - Construction Application	Two Crushers for Zirconium Oxides	6570

Furthermore, Imerys has prepared the potential calculations using grain loadings and formally agrees to the limitations in accordance with TAPCR 1200-3-07-.01(5) and described in the table below.

Emission Source I.D.	Baghouse ID	Grain Loading (gr/dscf)	Opacity
30-0001-05	D-410	0.01	10%
	D-425	0.01	10%
30-0001-06	DSP-1	0.01	10%
30-0001-07	D-300	0.02	20%
	D-326	0.01	10%
	D-801	0.01	10%
30-0001-Blend Area	D-819 (Formerly part of Grain Plant)	0.02	20%

Emission Source I.D.	Baghouse ID	Grain Loading (gr/dscf)	Opacity
30-0001-Crusher - Ingot Yard	D-120 (Formerly part of Grain Plant)	0.01	10%
30-0001-Sand Screening for sand reclaim	D-5 (Formerly part of Grain Plant)	0.01	10%
30-0001-10	Powder Plant	0.01	10%
30-0001-25	D-1	0.01	10%
	D-2	0.01	10%
	D-3	0.01	10%
	D-4	0.01	10%
	D-6	0.01	10%
30-0001-26	D-2001	0.01	10%
30-0001-34	DS2-1	0.01	10%
30-0001-35	D-351	0.01	10%
30-0001-36	E-1	0.02	20%
30-0147-01	DC#9	0.01	10%
30-0147-04 & 13	DC#4	0.01	10%
30-0147-06	DC#6	0.01	10%
30-0147-09	DC#1	0.0054	10%
30-0147-10	DC#7	0.01	10%

Emission Source I.D.	Baghouse ID	Grain Loading (gr/dscf)	Opacity
30-0147-11	DC#8	0.01	10%
	95zc Product Collector	0.02	20%
30-0147-12	DC#11(left)	0.0075	10%
	DC#11(right)	0.0075	10%
30-0147-15	DC#13	0.02	20%
30-0147-17	DC#14	0.01	10%
30-0147-18	E-0018A	0.02	20%
	E-00188	0.02	20%
30-0147-19	DC#19	0.02	20%
30-0147 - Construction Application	DC#21	0.01	10%

Imerys has maintained a Compliance Assurance Monitoring (CAM) plan with the Title V permitted facility due to the use of baghouses for all permitted sources except for railcar unloading which does not use a baghouse. Though the baghouses do control particulate emissions, their primary purpose is to collect the material for reuse in the process. Material collected from each baghouse is put back in to process at each of the sources. The baghouses in use at Imerys are inherent process equipment based on the definition in 40 CFR 64.1, therefore, the CAM plan is not necessary for this facility.

All necessary application forms and emission calculations are included. In accordance with Permit 566332 Condition E3-1 and Tennessee's Opacity Matrix dated June 18, 1996, and amended on September 11, 2013, Imerys Fused Minerals is enclosing a summary of the required Visible Emissions Evaluations with this permit renewal application.

Your help in this matter is greatly appreciated. If you have questions concerning this permit renewal application, please contact Ms. Dana Cheever at (423) 943-7936, or my consultant, Shea Cofer at (615) 418-1414.

Sincerely,

Dana Cheever, EHS Manager for Tim Newton 6/15/17

Tim Newton
Chief Operating Officer

Attachments: Title V Renewal Application and Calculations
VEE Summary

IMERYS
Fused Minerals

July 23, 2018

Michelle Owenby
Division of Air Pollution Control
Tennessee Department of Environment & Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Subject: Imerys Fused Minerals Greeneville, Inc.
ESRN 30-0147
Permit No. 461018P
Source 04 &13 and Source 17

Dear Ms. Owenby:

Imerys Fused Minerals Greeneville, Inc. (Imerys) recently submitted an operational flexibility request to install one baghouse that will be utilized by Source 04/13 and Source 17. The potential emissions from will remain below the permitted limits for these sources.

Imerys formally agrees to limit grain loading to 0.005 gr/dscf for Source 04 & 13 and Source 17 and an emission limit of 1.27 pounds per hour.

If you have any questions or comments on this letter or attachments, please contact Mr. Sean Varner at (423) 787-0333, or my consultant, Shea Cofer at (615) 418-1414.

I hereby certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Sincerely,

Sean Varner for Tim Newton

Tim Newton
Chief Operating Officer

IMERYS
Fused Minerals

August 27, 2021

Michelle Owenby
Division of Air Pollution Control
Tennessee Department of Environment & Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Subject: Permit Agreement Letter
Imerys Fused Minerals Greeneville, Inc.
ESRN 30-0001
Permit No. 572862

Dear Ms. Owenby:

On behalf of Imerys Fused Minerals Greeneville, Inc. (Imerys), the following permit limitations are agreed upon for the above referenced facility:

Source number	Grain loading (gr/dscf)	PM emission rate (lb/hr)	Minimum Pressure drop value (inches of water)
30-0001-52	0.005	1.27	1.0
30-0001-54	0.0054	1.39	1.5

Imerys shall assure compliance with these limitations by recording one pressure drop reading each day the source is in operation. Days when the source is not operated shall be noted in the log. The source shall operate with a pressure drop of not less than the minimum recorded above except for forty-eight (48) hours after replacement of bags to allow sufficient time for the "cake" to build on bags for optimum efficiency.

I hereby certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

If you have questions or require additional information, please contact Mr. Sean Varner at (423) 787-0333 (sean.varner@imerys.com), or my consultant, Shea Cofer at (615) 418-1414 (shea@stevensenvironmental.com).

On behalf of Imerys Fused Minerals Greeneville, Inc., I agree to the above limitations. I am authorized to represent and bind the facility in environmental affairs.

Tim Newton
Chief Operating Officer

IMERYS
Fused Minerals

July 22, 2022

Michelle Owenby
Division of Air Pollution Control
Tennessee Department of Environment & Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Subject: IMERYS Fused Minerals Greeneville, Inc.
ESRN 30-0001
Permit No. 572862
Minor Modification Request

Dear Ms. Owenby:

IMERYS Fused Minerals Greeneville, Inc. (IMERYS) holds operating permit number 572862. This letter requests a minor modification to address the following:

1. Add a new emission source (D Mill) and modify Source 36 (Vibratory Grinding Drum).
2. Remove Grizzly crusher and associated baghouse D-5 from Source 11.
3. Make minor administrative updates and corrections to the permit.

Change 1

Description of Change 1– Sources 36 and 38 (New)
IMERYS will install and operate new classifying and screening equipment called the D Mill and requests the new equipment be identified as Source 38. IMERYS will remove baghouse D-300 from Source 36 and use it for control of Source 38. Source 36 will continue to be controlled by existing baghouse E-1. IMERYS requests that no hours limitation be placed on Source 38.

These changes will include modifications to the ductwork for both baghouses, so an initial 30 days of pressure drop readings will be collected for both baghouses and a new pressure drop limit will be requested.

Emissions Estimates – Sources 36 and 38 (New)
Changing baghouse D-300 to Source 38 and removing the hours limitation on baghouse D-300 will cause the emissions from the individual sources to change as identified below. See attached emission calculations for details. In accordance with TAPCR 1200-3-07-.01(5), IMERYS requests and agrees to the following emissions limitations:

- Source 36 PM: 0.02 gr/dscf, or 1.17 lb/hr.
- Source 38 PM: 0.01 gr/dscf, or 0.65 lb/hr. and 10% opacity

Suggested Permit Language – See attachment for suggested language associated with this change.

Change 2

Description of Change 2 – Source 11 Grizzly screener and Baghouse removal
The Grizzly sand screener and associated baghouse D-5 has been permanently removed from Source 11. The crusher and baghouse D-120 continues to operate as Source 11. IMERYS requests that the Grizzly sand screener, baghouse D-5, and the associated language be removed from the permit.

Emissions Estimates – Source 11 Grizzly screener and Baghouse removal
Removing the Grizzly screener and baghouse D-5 results in reduced potential emissions from Source 11, since emission calculations are based on grain loading and baghouse flow rates. See attached emission calculations for details. In accordance with TAPCR 1200-3-07-.01(5), IMERYS requests and agrees to the following emissions limitations:

- Source 11 PM: 0.01 gr/dscf, or 2.03 lb/hr. and 10% opacity

Suggested Permit Language – See attachment for suggested language associated with this change.

Change 3

Administrative Change Requests
IMERYS requests that the following administrative changes be made as part of this minor modification request. These changes are corrections to the permit and do not impact emissions.

1. Source *30-0001-36: Vibratory Grinding Drum* is listed twice in the installation description on the first page of the permit. One instance should be removed.
2. Condition E2(MM2).(a)(2) includes a reference to E22-6, which does not exist.. The reference should be removed.
3. The example log in condition E24-2(MM2) includes a column for baghouse DC#95ZC. This is not applicable to this source, and the column should be removed.

Facility Wide Emissions
The changes included in this modification will reduce the overall facility potential to emit PM from 215.23 tpy to 214.9 tpy. See attached Potential Emissions Summary calculation.

Minor Permit Modification Procedures

The following requirements for minor modifications to a Part 70 permit are found at TN Chapter 1200-03-09-.02(11)(f)5(ii).

(ii) Minor permit modification procedures:

(I) Minor permit modification procedures may be used only for those permit modifications that:

I. Do not violate any applicable requirement;

II. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the permit;

III. Do not require or change a case-by-case determination of an emission limitation or other standard required by the federal Act, or a source-specific determination for temporary sources of ambient impacts as required by the federal Act, or a visibility or increment analysis as required by the federal Act;

IV. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:

A. A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the federal Act. Further, federally enforceable emission caps assumed to avoid classification as a modification under chapter 1200-03-11, chapter 1200-30-16, Chapter 1200-03-31, paragraph 1200-03-09-.01(4) or paragraph 1200-03-09-.01(5) are included in the criteria of this section 1200-03-09-.02(11)(f)5(ii)(I)IVA.

B. An alternate emission limit approved pursuant to section 112(i)(5) of the federal Act or rule 1200-03-31-.06;

V. Are not modifications under Title I of the federal Act or the federal regulations promulgated pursuant thereto. Further, the minor permit modification process may be used only for changes that are not modifications under chapter 1200-03-11, Chapter 1200-03-31, chapter 1200-03-16, paragraph 1200-03-09-.01(4) or paragraph 1200-03-09-.01(5); and

VI. Are not otherwise required in paragraph 1200-03-09-.02(11) to be processed as a significant modification.

I hereby certify that the request for changes included in this letter meet the requirements for minor modification to the existing permit and formally request that the Division use minor modification procedures to account for this request in the Part 70 permit.

I hereby certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Your help in this matter is greatly appreciated. If you have questions concerning this permit minor modification request, please contact Mr. Sean Varner at (423) 787-0333, or my consultant, Shea Cofer at (615) 418-1414.

Sincerely,

Tim Newton
Chief Operating Officer

Attachments: Suggested Permit Language
Facility and New Source Forms
Emission Calculations

March 25, 2026

Michelle Owenby
Division of Air Pollution Control
Tennessee Department of Environment & Conservation
500 James Robertson Parkway
Davy Crocket Tower, 7th Floor
Nashville, TN 37243

Subject: IMERYS Fused Minerals Greeneville, Inc.
ESRN 30-0001
Permit No. 572862
Minor Modification Request

Dear Ms. Owenby:

IMERYS Fused Minerals Greeneville, Inc. (IMERYS) holds operating permit number 572862. This letter requests a minor modification to replace Source 07 baghouse D-326 with a more efficient, higher flow rate unit. The details of the new unit are described below.

Description of Change 1– Source 07
IMERYS will remove baghouse D-326 from Source 07 and will install a new, more efficient baghouse with a flow rate of 35,000 actual cubic feet per minute (ACFM).

This modification will include changes to the baghouse specifications. The new model has a higher capacity than the previous 15,000 ACFM model, so an initial 30 days of pressure drop readings will be collected for the baghouses and a new pressure drop limit will be requested.

Emissions Estimates – Source 07
Removing and replacing baghouse D-326 will cause the emissions from the individual sources to change as identified below. See attached emission calculations for details. In accordance with TAPCR 1200-3-07-.01(5), IMERYS requests and agrees to the following emissions limitations:

Baghouse #	Flow Rate (DSCFM)	Exhaust PM Conc. (gr/dscf)
SD-7	34,475	0.005
D-326 (New)	34,475	0.005
D-801	14,775	0.01

- Overall Source 07 PM emitted shall not exceed 4.22 lbs/hr total.

Suggested Permit Language – See attachment for suggested language associated with this change.

1

Facility Wide Emissions

The changes included in this modification will increase compared with the allowable PM emissions identified in the Title V permit renewal application (212.23 TPY to 213.28 TPY). See attached potential emissions summary calculation.

Minor Permit Modification Procedures

The following requirements for minor modifications to a Part 70 permit are found at TN Chapter 1200-03-09-.02(11)(f)5(ii).

(ii) Minor permit modification procedures:

(I) Minor permit modification procedures may be used only for those permit modifications that:

I. Do not violate any applicable requirement;

II. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the permit;

III. Do not require or change a case-by-case determination of an emission limitation or other standard required by the federal Act, or a source-specific determination for temporary sources of ambient impacts as required by the federal Act, or a visibility or increment analysis as required by the federal Act;

IV. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:

A. A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the federal Act. Further, federally enforceable emission caps assumed to avoid classification as a modification under chapter 1200-03-11, chapter 1200-30-16, Chapter 1200-03-31, paragraph 1200-03-09-.01(4) or paragraph 1200-03-09-.01(5) are included in the criteria of this section 1200-03-09-.02(11)(f)5(ii)(I)IVA.

B. An alternate emission limit approved pursuant to section 112(i)(5) of the federal Act or rule 1200-03-31-.06;

V. Are not modifications under Title I of the federal Act or the federal regulations promulgated pursuant thereto. Further, the minor permit modification process may be used only for changes that are not modifications under chapter 1200-03-11, Chapter 1200-03-31, chapter 1200-03-16, paragraph 1200-03-09-.01(4) or paragraph 1200-03-09-.01(5); and

VI. Are not otherwise required in paragraph 1200-03-09-.02(11) to be processed as a significant modification.

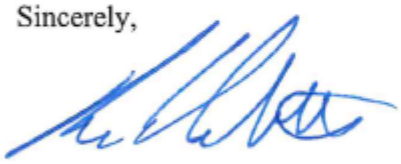
2

I hereby certify that the request for changes included in this letter meet the requirements for minor modification to the existing permit and formally request that the Division use minor modification procedures to account for this request in the Part 70 permit.

I hereby certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Your help in this matter is greatly appreciated. If you have questions concerning this permit minor modification request, please contact Mr. Sean Varner at (423) 787-0333, or my consultant, Shea Cofer at (615) 418-1414.

Sincerely,



Ray Schmitt
Site Manager

Attachments: Suggested Permit Language
Facility and New Source Forms
Emission Calculations

ATTACHMENT 3
EXAMPLE LOGS

Example Log #1: Daily Baghouse Pressure Drop Reading and Weekly Baghouse Inspection

Date/Time		Source Number	Baghouse ID	Source Operating?		Control Device Operating?		Pressure Drop (inches H_2O)	Comments / Corrective Actions[7]	Initials	
Reading	Inspection			Yes	No	Yes	No			Reading	Inspection
				☐	☐	☐	☐				
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[7] For all corrective actions found during a baghouse inspection or due to subminimum pressure drops, document the time corrective action was initiated and all corrective action repairs completed.

Example Log #2: Daily Baghouse Pressure Drop Reading and Weekly Baghouse Inspection (30-0001-57, Baghouse DC #11)

Date/Time		Number of Fans Operating	Source Operating?		Control Device Operating?		Pressure Drop (inches H_2O)	Comments / Corrective Actions	Initials	
Reading	Inspection		Yes	No	Yes	No			Reading	Inspection
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Example Log #3: Operating Hours Log			
Month and Year	**Source Number**	**Operating Hours for Current Month**	**12-Month Rolling Total Operating Hours**

Example Log #4: Daily Material Input and Operating Hours Log								
Day	**Source Number**	**Material Input (lb)**	**Hours of Operation**	***Daily Average Material Input (lb/hr)**	**Day**	**Material Input (lb)**	**Hours of Operation**	***Daily Average Material Input (lb/hr)**
1					17			
2					18			
3					19			
4					20			
5					21			
6					22			
7					23			
8					24			
9					25			
10					26			
11					27			
12					28			
13					29			
14					30			
15					31			
16								
*The daily average is to be calculated by dividing the mass of a day's material input (lb) by the hours of operation for that day.								

ATTACHMENT 4
TITLE V FEE SELECTION FORM APC 36 (CN-1583)

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF AIR POLLUTION CONTROL
Davy Crockett Tower, 7th Floor
500 James Robertson Parkway, Nashville, TN 37243
Telephone: (615) 532-0554, Email: Air.Pollution.Control@TN.gov

TITLE V FEE SELECTION

Type or print and submit to the email address above.

FACILITY INFORMATION

1. Organization's legal name and SOS control number [as registered with the TN Secretary of State (SOS)]

2. Site name (if different from legal name)

3. Site address (St./Rd./Hwy.)	County name
City	Zip code

4. Emission source reference number	**5.** Title V permit number

FEE SELECTION

This fee selection is effective beginning January 1, _____. When approved, this selection will be effective until a new Fee Selection form is submitted. Fee Selection forms must be submitted on or before December 31 of the annual accounting period.

6. Payment Schedule (choose one):

Calendar Year Basis (January 1 – December 31) ☐ Fiscal Year Basis (July 1 – June 30) ☐

7. Payment Basis (choose one):

Actual Emissions Basis ☐ Allowable Emissions Basis ☐ Combination of Actual and Allowable Emissions Basis ☐

8. If Payment Basis is "Actual Emissions" or "Combination of Actual and Allowable Emissions", complete the following table for each permitted source and each pollutant for which fees are due for that source. See instructions for further details.

Source ID	Pollutant	Allowable or Actual Emissions	If allowable emissions: Specify condition number and limit. If actual emissions: Describe calculation method and provide example. Provide condition number that specifies method, if applicable.

8. (Continued)

Source ID	Pollutant	Allowable or Actual Emissions	If allowable emissions: Specify condition number and limit. If actual emissions: Describe calculation method and provide example. Provide condition number that specifies method, if applicable.

CONTACT INFORMATION (BILLING)

9. Billing contact			Phone number with area code
Mailing address (St./Rd./Hwy.)			Fax number with area code
City	State	Zip code	**Email address**

SIGNATURE BY RESPONSIBLE OFFICIAL

Based upon information and belief formed after reasonable inquiry, I, as the responsible person of the above mentioned facility, certify that the information contained in the submittal is accurate and true to the best of my knowledge. As specified in TCA Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

10. Signature		Date
Signer's name (type or print)	**Title**	Phone number with area code

Statement of Basis for Draft/Proposed Title V Operating Permit 581394

Facility Name:	Imerys Greeneville, Inc.	**Facility ID Number:**	30-0001
Permit Number:	581394	**Date Application Received:**	May 16, 2023
Permit Writer:	Travis Blake	**Date Application Complete:**	May 16, 2023

FACILITY CATEGORY

This facility is a major source of emissions. The facility-wide potential to emit (PTE) of particulate matter (PM) is at or above the Title V major source threshold of 100 tons/year. The facility-wide PTE of PM is at or above the Prevention of Significant Deterioration (PSD) threshold for a major stationary source, but the facility has accepted federally enforceable limits to avoid PSD applicability[1]. The PSD applicability threshold for this facility is 250 tons/year because it is not one of the 28 listed source categories in the PSD regulations.

FACILITY DESCRIPTION

Imerys Greeneville, Inc. processes sand to manufacture high grade fused silica and zirconia. The facility includes sand handling, electric arc furnace, crushing, grinding, milling, and packaging operations.

PROJECT DESCRIPTION

Imerys Greeneville, Inc. is requesting a Title V Operating Permit renewal.

COMPLIANCE STATUS

1. This facility is located in an attainment area for all criteria pollutants.

2. The date of the last inspection occurred on November 5, 2025. The facility was in compliance with the applicable requirements of the permit, and no violations of the permit conditions were observed.

3. The facility is current on Title V fees as of November 21, 2025.

CO-LOCATION DETERMINATION

Co-location is not applicable to this facility. A co-located facility was combined into the previous operating permit.

PUBLIC NOTICE

This Title V Renewal will undergo a 30-day public notice period and a 45-day EPA comment period in accordance with TAPCR 1200-03-09-.02(11). The notice was published on the TDEC website on September 15, 2026.

1 The facility's potential to emit for PM (at unrestricted hours of operation) is 249.94 tons/year from permitted sources and 17.03 tons/year from insignificant emissions units. When operating hours restrictions are included, the synthetic minor potential to emit is 231.17 tons/year (214.14 tons/year from permitted sources, plus 17.03 tons/year from insignificant emissions units).

Facility Name:	Imerys Greeneville, Inc.	**Facility ID Number:**	30-0001
Permit Number:	581394	**Date Application Received:**	May 16, 2023
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ADDITIONAL PUBLIC PARTICIPATION

Any comments received from the public or U. S. EPA during the public comment period will be added to this section.

Permit Registry notification is applicable to Greene County.

Table 1A: **FACILITY EMISSION SOURCES**

Source Number	Source Description	Permitted	Exempt or Insignificant	PBR
05	**Nine Ball Mills and Accessories:** The mills are used to grind fused silica. Emissions are controlled by two baghouses.	X		
06	**Special Products Operation:** This operation involves ingot breaking, primary, secondary, and tertiary crushing, and grinding and sizing of fused silica. Emissions are controlled by a single baghouse.	X		
07	**Grain Plant:** Crushing, classifying, and screening operations of fused silica. Includes D Mill. Emissions are controlled by three baghouses.	X		
09	**Material Blending:** Blend area. Emissions are controlled by one baghouse.	X		
10	**Powder Plant:** The Powder Plant consists of two continuous ball mills, air classifiers, five screens, and a packaging operation. Emissions are controlled by a single baghouse.	X		
11	**Crusher – Ingot Yard:** Ingot crushing operation. Emissions are controlled by a single baghouse.	X		
25	**Seventeen Electric Rotary Fusion Furnaces:** Sand is unloaded from railcars into a feed hopper and conveyor belt. The sand is transported to the fusion furnaces, and the fusion furnaces make a fused silica ingot which is cooled and processed in primary and secondary crushers. Emissions from the furnaces are controlled by five baghouses.	X		
26	**No. 1 Spherical Process:** One 14.8 MMBtu/hr propane-fired furnace used to sphericalize silica sand or fused silica powder. Emissions are controlled by a single baghouse.	X		
34	**No. 2 Spherical Process:** One 14.8 MMBtu/hr propane-fired furnace used to sphericalize silica sand or fused silica powder. Emissions are controlled by a single baghouse.	X		
35	**Sand Reclamation Process:** This operation involves recovering sand from electric fusion furnaces. This process includes mechanical conveyors and screening operations. Emissions are controlled by a single baghouse.	X		

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Source Number	Source Description	Permitted	Exempt or Insignificant	PBR
36	**Vibratory Grinding Drum:** Vibratory grinding drum. Secondary equipment includes elevators, product holding tanks, and conveyors. Emissions are controlled by two baghouses.	X		
51	**Pour Furnace No. 1:** Fusion of Zirconium Silicate mineral oxides by electric arc furnace. Emissions are controlled by a single baghouse.	X		
52	**No. 2 Bead Grinder, Ball Mills 7 & 8, Vibe Mills A side and B side, and Coarse Grain Packaging:** Includes No. 2 Bead Grinder System for Mineral Oxides, Rotary Ball Mills 7 & 8 to Process Zirconium Oxides, Vibe Mills A side and B side, and Coarse Grain Packaging. Emissions controlled by a single baghouse (DC #4). Vibe Mills have two product collectors that exhaust inside. Formerly 30-0147-04, 13, 17, 18.	X		
53	**Higgins Furnace:** Includes zirconium silicate and/or mineral oxide production with electric arc furnace. Emissions are controlled by a single baghouse.	X		
54	**No. 1 Bead Grinder:** No. 1 Bead grinding system for mineral oxides, with a baghouse for PM emission control.	X		
55	**Core Processing Operation:** Core processing operation; grinding and sizing of mineral oxides with a single baghouse for particulate matter emission control.	X		
56	**Classification and Packaging System:** Classification and packaging system for mineral oxides (Rotary Ball Mills 1-3). Emissions are controlled by a single baghouse.	X		
57	**Pour Furnace #2:** This operation involves the fusion of Zirconium Silicate mineral oxides in an electric arc furnace. The application identifies two distinct operating modes for this emission source: refining zirconium silicate (Mode 1) and melting zirconium (Mode 2). Emissions are controlled by three cyclones operating in parallel and a baghouse with two fans. Formerly 30-0147-12.	X		
60	**Two Crushers for Zirconium Oxides:** This operation includes two crushers for sizing of zirconium oxides with a baghouse for product collections. Formerly 30-0147-24.	X		
31	Sand Handling, Storage and Railcar Unloading		X	
37	Propane Emergency Engine		X	
56	95ZC Classifying System		X	
58	Cyclone Classifying System		X	
59	Satellite Screening/Classifying System for Zirconia Products		X	
N/A	Fumed Silica Bagging Operation. Formerly 30-0147-20.		X	

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Source Number	Source Description	Permitted	Exempt or Insignificant	PBR
N/A	Cyclone with Product Collector		X	
N/A	Zirconium Oxide Blending		X	
N/A	Screeners		X	
N/A	Sand Dryer		X	

Table 1B: **CHANGES SINCE LAST PERMIT ISSUANCE**

Description	Date
Source 25 (Electric Rotary Fusion Furnaces) was modified to add two new rotary furnaces. Minor Modification #1 to Title V permit 572862.	10/3/2019
Removed source 37 (Emergency Engine), a portion of source 56 (95ZC Product Collector), and source 59 from the permit and designated them as insignificant emission units. Minor Modification #2 to Title V permit 572862.	11/19/2019
Removed the operating hours limits for sources 52 and 54. Minor Modification #1 to Title V permit 572862.	10/5/2021
Removed the grizzly sand screener and associated baghouse from Source 11. Moved one of two baghouses from source 36 to source 38.	1/4/2023

REGULATORY APPLICABILITY REVIEW	
Regulations	**Comments/ Requirements (Monitoring/Recordkeeping/Reporting/Testing)**
Chapter 6 TAPCR 1200-03-06-.03(2)	**Applicable:** This facility has fuel burning sources. Compliance is assured by heat intu and fuel usage limits.
Chapter 7 TAPCR 1200-03-07-.01(5) TAPCR 1200-03-07-.07(2)	**Applicable:** This facility has process emission sources. Compliance is assured by recordkeeping and control device monitoring.

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REGULATORY APPLICABILITY REVIEW	
Regulations	**Comments/ Requirements (Monitoring/Recordkeeping/Reporting/Testing)**
Chapter 10 TAPCR 1200-03-10-.01	**Not Applicable:** This facility is not subject to any source testing requirements outlined in this chapter.
Chapter 14	**Not Applicable:** This facility does not have any emission sources that emit SO_2 except for negligible emissions from combustion of gaseous fuel.
Other state regulations: Chapter(s) 18, 22, 25, 27, etc.	**Not Applicable:** This facility does not contain sources subject to these chapters.
40 CFR 60	**Not Applicable:** This facility does not contain sources subject to this regulation.
40 CFR 61	**Not Applicable:** This project/facility does not emit the pollutants (benzene, beryllium, arsenic, vinyl chloride or radon) subject to this regulation.
40 CFR 62	**Not Applicable:** This facility is not subject to any Federal Plans specified in §62.13
40 CFR 63	**Not Applicable:** There are no sources at this facility that emit HAPs.
40 CFR 68	**Not Applicable:** The facility does not use or store the subject chemicals above threshold quantities.
40 CFR 64	**Not Applicable:** This is a Title V facility, but the Pollutant Specific Emissions Units (PSEUs) do not meet the applicability criteria outlined in 40 CFR 64. The Division previously determined that the baghouses at this facility meet the definition of inherent process equipment[2] as defined in 40 CFR §64.1 (see the statement of basis for Title V renewal permit 572862).
Special Conditions, Monitoring, Limits	**Not Applicable:** This facility does not have any special conditions, monitoring, or testing requirements.
Modeling Review	**Not Applicable:** This facility does not emit Pb, HCl or HF.
Previous Permit Number	Title V Operating Permit:572862

EMISSION SUMMARY

2 §64.1 states in part, "*Inherent process equipment* means equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations. Equipment that must be operated at an efficiency higher than that achieved during normal process operations in order to comply with the applicable emission limitation or standard is not inherent process equipment. For the purposes of this part, inherent process equipment is not considered a control device."

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Table 2: SOURCE SPECIFIC EMISSIONS

Permit Emissions: $PM/PM_{10}/PM_{2.5}$ (Hourly)					
Source	**Actual Emissions**	**Regulatory Allowable Emissions**	**Uncontrolled Emissions[3]**	**Potential to Emit[4]**	**Permitted Allowable**
05	3.38 lb/hr	14.02 lb/hr TAPCR 1200-03-07-.03(1)	3.38 lb/hr	3.38 lb/hr	0.01 grains/dscf (3.38 lb/hr) TAPCR 1200-03-07-.01(5))
06	3.21 lb/hr	32.52 lb/hr TAPCR 1200-03-07-.03(1)	3.21 lb/hr	3.21 lb/hr	0.01 grains/dscf (3.21 lb/hr) TAPCR 1200-03-07-.01(5))
07	4.22 lb/hr	30.15 lb/hr TAPCR 1200-03-07-.03(1)	5.49 lb/hr	5.49 lb/hr	0.01 grains/dscf for baghouse D-801 and 0.005 grains/dscf for baghouses D-326 and SD-7 (4.22 lb/hr) TAPCR 1200-03-07-.01(5))
09	1.27 lb/hr	0.25 grains/dscf (15.83 lb/hr) TAPCR 1200-03-07-.04(2)	1.27 lb/hr	1.27 lb/hr	0.02 grains/dscf (1.27 lb/hr) TAPCR 1200-03-07-.01(5))
10	2.53 lb/hr	14.97 lb/hr TAPCR 1200-03-07-.03(1)	2.53 lb/hr	2.53 lb/hr	0.01 grains/dscf (2.53 lb/hr) TAPCR 1200-03-07-.01(5))
11	2.03 lb/hr	29.57 lb/hr TAPCR 1200-03-07-.03(1)	2.03 lb/hr	2.03 lb/hr	0.01 grains/dscf (2.03 lb/hr) TAPCR 1200-03-07-.01(5))
25	8.44 lb/hr	29.11 lb/hr TAPCR 1200-03-07-.03(1)	8.44 lb/hr	8.44 lb/hr	0.01 grains/dscf (8.44 lb/hr) TAPCR 1200-03-07-.01(5))
26	2.53 lb/hr	0.02 grains/dscf (5.07 lb/hr) TAPCR 1200-03-07-.04(1)	2.53 lb/hr	2.53 lb/hr	0.01 grains/dscf (2.53 lb/hr) TAPCR 1200-03-07-.01(5))
34	0.61 lb/hr	1.70 lb/hr TAPCR 1200-03-07-.03(1)	0.61 lb/hr	0.61 lb/hr	0.01 grains/dscf (0.61 lb/hr) TAPCR 1200-03-07-.01(5))
35	1.69 lb/hr	11.18 lb/hr TAPCR 1200-03-07-.03(1)	1.69 lb/hr	1.69 lb/hr	0.01 grains/dscf (1.69 lb/hr) TAPCR 1200-03-07-.01(5))
36	1.77 lb/hr	26.41 lb/hr TAPCR 1200-03-07-.03(1)	1.77 lb/hr	1.77 lb/hr	0.01 grains/dscf (0.60 lb/hr) TAPCR 1200-03-07-.01(5))
51	5.08 lb/hr	0.02 grains/dscf (10.17 lb/hr) TAPCR 1200-03-07-.04(1)	5.08 lb/hr	5.08 lb/hr	0.01 grains/dscf (5.08 lb/hr) TAPCR 1200-03-07-.01(5))
52	1.27 lb/hr	15.88 lb/hr TAPCR 1200-03-07-.03(1)	1.27 lb/hr	1.27 lb/hr	0.005 grains/dscf (1.27 lb/hr) TAPCR 1200-03-07-.01(5))
53	2.47 lb/hr	31.83 lb/hr TAPCR 1200-03-07-.03(1)	2.47 lb/hr	2.47 lb/hr	0.01 grains/dscf (2.47 lb/hr) TAPCR 1200-03-07-.01(5))
54	4.83 lb/hr	22.28 lb/hr TAPCR 1200-03-07-.03(1)	4.83 lb/hr	4.83 lb/hr	0.0054 grains/dscf (4.83 lb/hr) TAPCR 1200-03-07-.01(5))

3 Controlled emissions are assumed equal to agreed emission limit based on review of PM and opacity limits. Controlled emissions are equal to uncontrolled emissions based on a prior determination that the baghouses at this facility meet the definition of inherent process equipment as defined in 40 CFR §64.1 (see the statement of basis for Title V renewal permit 572862), except that uncontrolled emissions are based on 8,760 hours/year for all sources.

4 For PM or SO_2, potential to emit is calculated as the lesser of uncontrolled emissions or the regulatory allowable.

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Permit Emissions: $PM/PM_{10}/PM_{2.5}$ (Hourly)

Source	Actual Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions[3]	Potential to Emit[4]	Permitted Allowable
55	0.84 lb/hr	6.34 lb/hr TAPCR 1200-03-07-.03(1)	0.84 lb/hr	0.84 lb/hr	0.01 grains/dscf (0.84 lb/hr) TAPCR 1200-03-07-.01(5))
56	1.52 lb/hr	6.34 lb/hr TAPCR 1200-03-07-.03(1)	1.52 lb/hr	1.52 lb/hr	0.01 grains/dscf (1.52 lb/hr) TAPCR 1200-03-07-.01(5))
57	6.50 lb/hr	7.09 lb/hr TAPCR 1200-03-07-.03(1)	6.50 lb/hr	6.50 lb/hr	0.0075 grains/dscf (6.50 lb/hr) TAPCR 1200-03-07-.01(5))
60	2.37 lb/hr	10.23 lb/hr TAPCR 1200-03-07-.03(1)	2.37 lb/hr	2.37 lb/hr	0.01 grains/dscf (2.37 lb/hr) TAPCR 1200-03-07-.01(5))

Permit Emissions: $PM/PM_{10}/PM_{2.5}$ (Annual)

Source	PM Emissions (tons/year)				
	Actual	Uncontrolled (at 8,760 hr/year)	Regulatory Allowable (at 8,760 hours/year)	Potential (at 8,760 hours/year)	Allowable (Synthetic Minor Potential Emissions Limit)
05	10.54	14.79	61.40	14.79	10.54
06	12.32	14.05	142.45	14.05	12.32
07	18.49	18.49	132.07	18.49	18.49
09	2.77	5.55	69.34	5.55	2.77
10	11.09	11.09	65.55	11.09	11.09
11	2.84	8.88	129.53	8.88	2.84
25	36.98	36.98	127.52	36.98	36.98
26	6.08	11.09	6.08	6.08	6.08
34	1.47	2.68	7.45	2.68	1.47
35	5.27	7.40	48.98	7.40	5.27
36	5.52	7.74	115.69	7.74	5.52
51	21.60	22.27	44.54	22.27	21.60
52	7.77	7.77	71.76	7.77	7.77
53	8.88	10.80	139.41	10.80	8.88
54	21.18	21.18	97.59	21.18	21.18
55	1.81	3.68	27.75	3.68	1.81
56	3.28	6.66	27.75	6.66	3.28
57	28.45	28.45	31.07	28.45	28.45
60	7.80	10.39	44.82	10.39	7.80
Totals	**214.14**	**249.94**	**1,384.67**	**249.94**	**214.14**

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Permit Emissions: SO_2[5], CO, VOC, and NO_X

Source	Actual Emissions (tons/year)				Potential Emissions (tons/year)				Allowable Emissions (tons/year)			
	SO_2	CO	VOC	NO_X	SO_2	CO	VOC	NO_X	SO_2	CO	VOC	NO_X
26	0.04	2.91	0.39	5.05	0.04	2.91	0.39	5.05	0.04	2.91	0.39	5.05
34	0.04	2.91	0.39	5.05	0.04	2.91	0.39	5.05	0.04	2.91	0.39	5.05
52			27.66				27.66				27.66	
Facility Totals	**0.08**	**5.82**	**28.44**	**10.10**	**0.08**	**5.82**	**28.44**	**10.10**	**0.08**	**5.82**	**28.44**	**10.10**

Changes Made in Title V Renewal Permit 581394

Condition or Section	Change
E3-2	Updated visible emissions requirements to add a table showing which sources require an initial VEE.
E3-3	Added recordkeeping requirements for maintenance activities.
E3-5	Replaced source-specific conditions for baghouse catch materials with a general condition that applies to all emission sources using a baghouse.
E4-1, E5-1, E6-1, E7-1, E8-1, E10-1, E11-1, E12-3, E13-1, E15-1, E16-1, E17-1, E18-1, E19-1, E20-1, E21-1, E22-1	Added compliance method for stated throughput capacities.
E6-1, E17-1, E21-1	Updated stated design capacities to match the current application.
E4-2, E5-2, E6-2, E7-2, E8-2, E9-2, E10-2, E11-3, E12-4, E13-2, E14-2, E15-2, E16-3, E17-2, E18-2, E19-2, E20-2, E21-2, E22-2	Added semiannual maintenance inspection requirements for all baghouses.
E11-5	Added a stated throughput rate for source 26 based on confirmation that sources 26 and 34 have the same throughput (September 3, 2026, site visit).

SUMMARY AND CONCLUSIONS

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.

5 Regulatory and permitted allowables were not established for SO_2 based on negligible emissions.