

PUBLIC NOTICE

GT Refractory Solutions, LLC 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 **GT Refractory Solutions, LLC** with a site address of 22 Carbon Drive, Lawrenceburg, TN 38464. They have applied for renewal of their existing major source (Title V) operating permit for their manufacturing operation for carbon bricks, carbon cement and paste, graphite flour and products.

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:

Columbia Environmental Field Office
1421 Hampshire Pike, Suite 100
Columbia, TN 38401

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 Tracy Kefauver at (615) 238-1133 or by e-mail at Tracy.Kefauver@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 5, 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: Technical Secretary, Tennessee Air Pollution Control Board, Davy Crockett Tower, 7th Floor, 500 James Robertson Parkway, Nashville, Tennessee 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, 5th Floor, 500 James Robertson Parkway, Nashville, TN 37243, 1-(866)-253-5827. Hearing impaired callers may use the Tennessee Relay Service, 1-(800)-848-0298.

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

Permit Number:

Date Expires: DRAFT

578962

Issued To:

GT Refractory Solutions, LLC

Installation Address:

22 Carbon Drive
Lawrenceburg

Installation Description:

Manufacturer of Carbon Bricks, Carbon Cement and Paste, Graphite
Flour and Products

Facility ID: 50-0003

Renewal Application Due Date:

Between ***** and *****

Primary SIC: 3624

Information Relied Upon:

Title V Permit Renewal Application dated June 21, 2021

(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

CONTENTS

SECTION A

GENERAL PERMIT CONDITIONS

A1.	Definitions	1
A2.	Compliance requirement	1
A3.	Need to halt or reduce activity	1
A4.	The permit	1
A5.	Property rights	1
A6.	Submittal of requested information	1
A7.	Severability clause	2
A8.	Fee payment	2
A9.	Permit revision not required	2
A10.	Inspection and entry	2
A11.	Permit shield	3
A12.	Permit renewal and expiration	3
A13.	Reopening for cause	3
A14.	Permit transference	4
A15.	Air pollution alert	4
A16.	Construction permit required	4
A17.	Notification of changes	4
A18.	Schedule of compliance	5
A19.	Title VI	5
A20.	112 (r)	5

SECTION B

GENERAL CONDITIONS for MONITORING, REPORTING, and ENFORCEMENT

B1.	Recordkeeping	6
B2.	Retention of monitoring data	6
B3.	Reporting	6
B4.	Certification	6
B5.	Annual compliance certification	6
B6.	Submission of compliance certification	7
B7.	Emergency provisions	7
B8.	Excess emissions reporting	7
B9.	Malfunctions, startups and shutdowns - reasonable measures required	8
B10.	Reserved	8
B11.	Report required upon the issuance of notice of violation for excess emissions	8

CONTENTS

SECTION C

PERMIT CHANGES

C1.	Operational flexibility changes	10
C2.	Section 502(b)(10) changes	10
C3.	Administrative amendment	10
C4.	Minor permit modifications	10
C5.	Significant permit modifications	11
C6.	New construction or modifications	11

SECTION D

GENERAL APPLICABLE REQUIREMENTS

D1.	Visible emissions	12
D2.	General provisions and applicability for non-process gaseous emissions	12
D3.	Non-process emission standards	12
D4.	General provisions and applicability for process gaseous emissions	12
D5.	Particulate emissions from process emission sources	12
D6.	Sulfur dioxide emission standards	12
D7.	Fugitive dust	12
D8.	Open burning	13
D9.	Asbestos	13
D10.	Annual certification of compliance	13
D11.	Emission Standards for Hazardous Air Pollutant	13
D12.	Standards of Performance for New Stationary Sources	13
D13.	Gasoline Dispensing Facilities	13
D14.	Internal Combustion Engines	13
D15.	Maintenance and Repair	

CONTENTS

SECTION E

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

E1.	Fee payment	14
E2.	Reporting requirements	16
	(a) Semiannual reports	16
	(b) Annual compliance certification	17
E3.	General Permit Requirements	18
E4.	50-0003-01: Carbon Brick Manufacturing and Paste Mixing Operation	20
E5.	50-0003-02: Material Crushing, Sizing, and Bulk Storage	22
E6.	50-0003-03: Brick Plant Airveyor	23
E7.	50-0003-04: Brick Plant Vac-U-Max System	24
E8.	50-0003-06: Graphitizing Process	25
E9.	50-0003-07: Carbon Cement Blending and Packing	27
E10.	50-0003-15: Graphite Milling	28
E11.	50-0003-16: Unmilled Graphite Airveyor	29
E12.	50-0003-34: ZT Process	30
E13.	50-0003-35: Brick Plant Pitch Airveyor	30
E14.	50-0003-47: Graphite Rigid Insulation Process	31
E15.	50-0003-48: Graphite Machining Process	33
E16.	50-0003-49: Carbon Brick Manufacturing Press 7	34
	END OF PERMIT NUMBER 578962.....	36

ATTACHMENT 1	Opacity Matrix Decision Tree for Visible Emission Evaluation by EPA Method 9, dated June 18, 1996 Amended September 11, 2013.....	1 page
ATTACHMENT 2	Protocol for Determining Baghouse VEE	2 pages
ATTACHMENT 3	Title V Fee Selection	2 pages
ATTACHMENT 4	Compliance Assurance Monitoring (CAM) PLAN.....	40 pages
ATTACHMENT 5	Agreement Letter for Source 06	1 page

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 PM₁₀) 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 PM₁₀ on an allowable emission basis may do so if they have a specific PM₁₀ allowable emission standard. If a major source has a total particulate emission standard, but wishes to pay annual emission fees on an actual PM₁₀ emission basis, it may do so if the PM₁₀ actual emission levels are proven to the satisfaction of the Technical Secretary. The method to demonstrate the actual PM₁₀ emission levels must be made as part of the source's major source operating permit in advance in order to exercise this option. The PM₁₀ 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 PM₁₀ 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)(c), 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
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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****E1. Fee payment****FEE EMISSIONS SUMMARY TABLE FOR MAJOR SOURCE 53-0003**

REGULATED POLLUTANTS	ALLOWABLE EMISSIONS (tons per AAP)	ACTUAL EMISSIONS (tons per AAP)	COMMENTS
PARTICULATE MATTER (PM)	213.34	AEAR	
SO₂	521.60	AEAR	
VOC	46.51	AEAR	
NO_x	26.37	AEAR	
Facility-Wide Total HAP Limit		AEAR	
Facility-Wide Individual HAP Limit		AEAR	
HAZARDOUS AIR POLLUTANTS (HAPs) NOT INCLUDED ABOVE*			
Carbon Disulfide	3.64	AEAR	Sources 01 and 49
Carbonyl Sulfide	218.49	AEAR	Sources 01 and 49
PM HAP	10.00	AEAR	Sources 01 and 49
MISCELLANEOUS POLLUTANTS NOT LISTED ABOVE**			
EACH MISC POLLUTANT NOT LISTED ABOVE			
Total Reduced Sulfur	81.50	AEAR	Sources 01 and 49 (includes hydrogen sulfide)
		AEAR	
		AEAR	
		AEAR	

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 July 1, 2025, and ends June 30, 2026. The next AAP begins July 1, 2026, and ends June 30, 2027, 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 Actual Emissions Analysis is Required to determine the actual emissions of:

- (1) **each regulated pollutant** (Particulate matter [PM], SO₂, 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

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 **July 1 to December 31** 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
570505	July 1, 2026	day before new permit issuance (with year)

578962	Issuance Date of new permit (with year)	December 31, 2026
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These semiannual reports shall include:

- (1) Any monitoring and recordkeeping required by conditions **E4-2, E4-3, E5-2, E6-2, E7-2, E8-2, E8-3, E9-2, E10-2, E11-2, E12-1, E13-2, E14-3, E15-2, E16-1, and E16-2** of this permit. However, 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 **E4-4, E5-3, E6-3, E7-3, E8-4, E9-3, E10-3, E11-3, E12-2, E13-3, E14-6, E15-3 and E16-3** of this permit if required. However, 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
570505	January 1, 2026	day before new permit issuance (with year)
578962	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
Columbia Environmental Field Office
1421 Hampshire Pike
Columbia, TN 38401
or
APC.ColuEFO@tn.gov**

**and Air Enforcement Branch
US 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)

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

E3. General Requirements

E3-1 Identification of Responsible Official, Technical Contact, and Billing Contact of the permitted facility:

a) The application that was utilized in the preparation of this permit is dated June 21, 2021, and signed by responsible Official Gary Kinshofer, President, of the permitted facility. 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 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 June 21, 2021, and identifies Brent Carter, as the Principal Technical Contact for the permitted facility. The notification dated September 4, 2026, identifies Mike Barnett 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 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 June 21, 2021, and identifies Jennifer Zarek, 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 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. Insignificant Activities

The permittee listed various insignificant and exempt activities in their Title V Application per Rule 1200-03-09-.04(5). 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.

TAPCR1200-03-09

Compliance Method: The permittee shall observe the required instructions in the event that new insignificant activities are installed

E3-3. General Recordkeeping Requirements

- A. All recordkeeping requirements for all data required to be recorded shall follow the following schedules:

For Daily Recordkeeping	For Weekly Recordkeeping	For Monthly Recordkeeping
No later than seven days from the end of the day for which the data is required.	No later than seven days from the end of the week for which the data is required.	No later than 30 days from the end of the month for which the data is required.

- B. The information contained in logs, records, and submittals required by this permit shall be kept at the facility's address, unless otherwise noted, and provided to the Technical Secretary or a Division representative upon request. Computer-generated logs are acceptable. Compliance is assured by retaining the logs, records, and submittals specified in this permit for a period of not less than five years at the facility's address.
- C. Records of all repair and maintenance activities required shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five years. 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.

TAPCR 1200-03-10-.02(2)(a)

50-0003-01	Source Description:	Carbon Brick Manufacturing and Paste Mixing Operation: The brick raw materials are composed primarily of recycled graphite particles and carbonaceous materials. The materials are charged, blended, and metered into one of four presses. Each press operates as an individual batch system producing one brick at a time. Hydraulic pressure and electrical resistance heat are applied to the brick in the press, which forms and high bakes the brick in one step. Each brick is released from the press after the press cycle, sprayed with water to accelerate cool-down, and transferred by a conveyor to a pallet for additional air cooling. The carbon paste is also a batch process performed in the Brick Plant {Building 1}. The paste raw materials are blended together in a hot-oil heated, sigma-blade mixer and manually packaged in smaller containers for shipping. These emission sources are controlled by a high efficiency dust collector (BP-1) which is the exhaust point for the brick presses, paste mixing operations, and various material handling and transfer points. BP-1A is an identical, redundant dust collector that may also exhaust emissions from this source. This source has a Compliance Assurance Monitoring (CAM) plan.
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Conditions E4-1 through E4-3 apply to source 53-0003 - 01 as indicated.

- E4-1.** The maximum material input rates to this source shall not exceed 7,449 pounds per hour (lb/hr) on a daily average basis (4,449 lb/hr carbon brick blend and 3,000 lb/hr carbon paste) and 16,355 tons per year (7,595 tons/year carbon brick blend and 8,760 tons/year carbon paste). 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), Condition 2 of permit 946146, and the application dated June 21, 2021, from the permittee

Compliance Method: Compliance with this condition shall be assured by compliance with the recordkeeping requirement of Condition **E4-3**.

- E4-2.** Particulate matter (PM) emitted from this source shall not exceed a maximum of 8.11 lb/hr.

TAPCR 1200-03-07-.03(1) and the application dated June 21, 2021, from the permittee

Compliance Method: Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions by following the PROTOCOL FOR DETERMINATION OF BAGHOUSE VISIBLE EMISSIONS (**Attachment 2**) when the baghouse is in operation as prescribed in the permittee's COMPLIANCE ASSURANCE MONITORING (CAM) PLAN (**Attachment 4**).

If during the observation visible emissions are observed, a certified observer will conduct a visual emission evaluation in accordance with VEE Method 9 or shut the source (or part of the source) down. If the reading results in opacity greater than 20%, the control device will be shut down and the appropriate maintenance action implemented. If the reading results in opacity greater than 0% but less than 20%, the source may continue operation until the next scheduled shutdown. However, daily visible emissions must be conducted until the appropriate maintenance action has been taken to return the source to zero visible emissions. VEE Method 9 opacity matrix is provided as **Attachment 1** of this permit.

A written log of the daily visible emission observations and any VEE Method 9 observations will be maintained at the facility and be available for inspection by the Tennessee Division of Air Pollution Control personnel. These records shall be retained in accordance with **Condition E3-3** of this permit.

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

- E4-3.** Sulfur dioxide (SO₂), carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), hydrogen sulfide (H₂S), and total reduced sulfur (TRS) emitted from this source shall not exceed the following:

Pollutant	Emissions (lb / hour)	Emissions (Tons / year)	TAPCR
SO ₂	179.46	438.00	1200-03-14-.03(1)
CO	16.80	73.60	1200-03-07-.07(2)
VOC	12.03	20.60	1200-03-07-.07(2)
NO _x	6.00	26.37	1200-03-07-.07(2)
H ₂ S	21.51	36.80	1200-03-07-.07(2)
TRS	41.13	73.80	1200-03-07-.07(2)

TAPCR 1200-03-07-.07(2), 1200-03-14-.03(1), Condition 4 of permit 946146, and the application dated June 21, 2021, from the permittee

Compliance Method: Compliance with this condition shall be assured by the following procedure:

The material input rate and product output rate shall be monitored and recorded in either manual or electronic format, and the calculation of SO₂, CO, VOC, NO_x, H₂S, and TRS emissions shall be performed and recorded monthly in either manual or electronic format using the following equations:

Pollutant Emission Rate (tons/month) = Product Output Rate (lb month) X Emission Factor (lb pollutant emitted/ lb product output) X (ton/2,000 lb); and

Pollutant Emission Rate (lb/hr) = [Pollutant Emission Rate (tons/month) X (2,000 lbs/ ton)] / [24 hours/ day X no. days / month]

Material input rates may be estimated from product output rates using a factor of 1.085. where:

EMISSION FACTORS FOR BRICK PRODUCTION

Pollutant	Emission Factors (lbs. emitted / lb. material output)		Data Source
	High Sulfur Brick	Low Sulfur Brick	
TSP & PM10	0.00101	0.000965	February 1996 Source Test
NO _x	0.00	0.00	February 1996 Source Test
CO	0.00195	0.00195	July 1996 Source Test
VOC	0.00294	0.001235	July 1996 Source Test
SO ₂	0.0438	0.028515	July 1996 Source Test
H ₂ S	0.00525	0.00171	July 1996 Source Test
TRS	0.0105	0.003865	July 1996 Source Test
Particulate HAPs*	0.000665	0.000632	1991 Source Test
Carbon Disulfide CS ₂ *	0.00026	-	December 2005 Source Test
Carbonyl Sulfide COS*	0.00012	-	December 2005 Source Test

* Particulate HAPs, CS₂, COS for fee purposes only

EMISSION FACTORS FOR CARBON PASTE PRODUCTION

Pollutant	Emission Factor (lbs emitted / lb material output)	Data Source
TSP & PM10	0.00064	February 1996 Source Test
VOC	0.00037	July 1996 Source Test
SO ₂	0.00026	July 1996 Source Test
TRS	0.00041	July 1996 Source Test

The logs shall be retained in accordance with **Condition E3-3.**

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

- E4-4.** Visible emissions from this source shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.03(6), TAPCR 1200-03-05-.01(1) and the application dated June 21, 2021, from the permittee

Compliance method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) that is enclosed as Attachment 1. Reports and certifications shall be submitted in accordance with Condition **E2** of this permit.

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.

50-0003-02	Source Description: <u>Material Crushing, Sizing, and Bulk Storage :</u> Raw materials or the various processes are received and stored in bins. Certain materials are resized by crushing in a mill. Scrap bricks are crushed in the scrap crusher for reuse in the process. The crushing operations are conducted under a roof and with side enclosures to minimize particulate emissions. These emission sources are controlled by two high efficiency dust collectors. The emission point D-6 dust collector controls particulate emissions from the scrap crusher and storage bins. The emission point D-12 dust collector controls particulate emissions from the crusher and storage bins. This source has a Compliance Assurance Monitoring (CAM) plan.
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Conditions **E5-1** and **E5-2** apply to source 50-0003-02 as indicated.

- E5-1.** The stated capacity of this source is 19,000 lb per hour of raw or reused brick materials. Should the permittee need to modify the source(s) 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 June 21, 2021, from the permittee

Compliance Method: 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 a maximum of 14.50 lb/hr.

TAPCR 1200-03-07-.03(1) and the application dated June 21, 2021, from the permittee

Compliance Method: Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions by following the PROTOCOL FOR DETERMINATION OF BAGHOUSE VISIBLE EMISSIONS (**Attachment 2**) when the baghouse is in operation as prescribed in the permittee's COMPLIANCE ASSURANCE MONITORING (CAM) PLAN (**Attachment 4**).

If during the observation visible emissions are observed, a certified observer will conduct a visual emission evaluation in accordance with VEE Method 9 or shut the source (or part of the source) down. If the reading results in opacity greater than 20%, the control device will be shut down and the appropriate maintenance action implemented. If the reading results in opacity greater than 0% but less than 20%, the source may continue operation until the next scheduled shutdown. However, daily visible emissions

must be conducted until the appropriate maintenance action has been taken to return the source to zero visible emissions. VEE Method 9 opacity matrix is provided as **Attachment 1** of this permit.

A written log of the daily visible emission observations and any VEE Method 9 observations will be maintained at the facility and be available for inspection by the Tennessee Division of Air Pollution Control personnel. These records shall be retained in accordance with **Condition E3-3** of this permit.

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

- E5-3.** Visible emissions from this source shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.01(1), and the application dated June 21, 2021, from the permittee

Compliance method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) that is enclosed as Attachment 1. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

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.

50-0003-03	Source Description: <u>Brick Plant Airveyor:</u> The brick plant raw materials (other than pitch) are transferred from storage bins to the Brick Plant (Building 1) by a common airveying system. The airveyor exhaust is controlled by a bagfilter type dust collector (stack emission point D7). This source has a Compliance Assurance Monitoring (CAM) plan.
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Conditions **E6-1** and **E6-2** apply to source 50-0003-03 as indicated.

- E6-1.** The stated capacity of this source is 45,000 lb per hour of raw materials (other than pitch). Should the permittee need to modify the source(s) 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 June 21, 2021, from the permittee

Compliance Method: 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.** Particulate matter emitted from this source shall not exceed 0.25 grains per dry standard cubic foot (10.54 lb per hour).

TAPCR 1200-03-07-.04(2) and the application dated June 21, 2021, from the permittee

Compliance Method: Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions by following the PROTOCOL FOR DETERMINATION OF BAGHOUSE VISIBLE EMISSIONS (**Attachment 2**) when the baghouse is in operation as prescribed in the permittee's COMPLIANCE ASSURANCE MONITORING (CAM) PLAN dated included in the application dated June 21, 2021, that is enclosed as **Attachment 4**.

If during the observation visible emissions are observed, a certified observer will conduct a visual emission evaluation in accordance with VEE Method 9 or shut the source (or part of the source) down. If the reading results in opacity greater than 20%, the control device will be shut down and the appropriate maintenance action implemented. If the reading results in opacity greater than 0% but less than 20%, the source may continue operation until the next scheduled shutdown. However, daily visible emissions must be conducted until the appropriate maintenance action has been taken to return the source to zero visible emissions. VEE Method 9 opacity matrix is provided as **Attachment 1** of this permit.

A written log of the daily visible emission observations and any VEE Method 9 observations will be maintained at the facility and be available for inspection by the Tennessee Division of Air Pollution Control personnel. These records shall be retained in accordance with **Condition E3-3** of this permit.

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

- E6-3.** Visible emissions from this source shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.03(6), TAPCR 1200-03-05-.01(1), and the application dated June 21, 2021, from the permittee

Compliance method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) that is enclosed as Attachment 1. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

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.

50-0003-04	Source Description:	Brick Plant Vac-U-Max System: Six (6) indoor vacuum systems for transfer of the materials from the Brick Plant (Building 1) storage hoppers to the blenders and an additional vacuum collection system for housekeeping. The exhausts from each of the seven emission points are controlled by bagfilter type dust collectors (stack emission points D29, D30, D31, D32, D33, D34, and D35).
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Conditions **E7-1** and **E7-2** apply to source 50-0003-04 as indicated.

- E7-1.** The stated capacity of this source is 49,000 lb per hour of materials. Should the permittee need to modify the source(s) 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 June 21, 2021, from the permittee

Compliance Method: 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 each stack in this source shall not exceed 0.25 grains per dry standard cubic foot (0.92 lb per hour total).

TAPCR 1200-03-07-.04(2), 1200-03-09-.03(8) and 1200-03-10-.02(2)(a), and the application dated June 21, 2021, from the permittee

Compliance Method: The permittee shall operate and maintain a baghouse to control PM emissions. The source(s) controlled by the fabric filter(s) / baghouse(s) shall not operate unless each control device(s) is installed and operated. The permittee shall monitor the fabric filter(s) / baghouse(s) control device(s) for this source as follows:

The permittee shall perform and record weekly visual inspections of the exterior of the baghouse and the baghouse ductwork, including the baghouse exhaust, and replace bags/filters as needed. The permittee shall initiate, as well as record corrective action within 24 hours and complete, as well as record 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 baghouse(s). 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. Inspection records found in below, or in an alternative format, which provides the same information 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**.

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

CONTROL DEVICE(S) INSPECTION LOG					
Date	Time	Weekly Exterior Inspection checked		Comments / Corrective Actions	Initials
		Yes	No		
		☐	☐		
		☐	☐		
		☐	☐		
		☐	☐		
		☐	☐		
		☐	☐		
		☐	☐		
		☐	☐		

- E7-3.** Visible emissions from this source shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.03(6), TAPCR 1200-03-05-.01(1) and the application dated June 21, 2021, from the permittee

Compliance method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) that is enclosed as Attachment 1. Reports and certifications shall be submitted in accordance with Condition **E2** of this permit.

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.

50-0003-06	Source Description:	Graphitizing Process: Coke and other carbonaceous materials are graphitized in an electric induction furnace. Furnace exhaust emission point E-4; furnace pit area exhaust emission point E-20; material transfer points and product packaging areas bagfilter dust collector exhaust stack emission point D-26. This source has a Compliance Assurance Monitoring (CAM) plan.
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Conditions **E8-1** through **E8-3** apply to source 50-0003-06 as indicated.

- E8-1.** Sulfur dioxide (SO₂) emitted from this source shall not exceed 16.10 lb per hour and 51.60 tons during any twelve consecutive month period.

TAPCR 1200-03-14-.01(3) and agreement letter dated January 11, 2023 (Attachment 6)

Compliance Method: Compliance with this limitation shall be assured by recordkeeping. A record of the certifications from the supplier of the sulfur content (by weight) for each carbon material shipment or sulfur analysis of a sample of each shipment by the permittee's laboratories must be maintained at the facility. Calculations using the following equations shall be performed monthly and the results recorded in a log (manual or electronic format) to be maintained at the facility.

- I. SO₂ emission rate (lbs/hr) = [average monthly material input rate (lbs /hr)] X [percent sulfur content (expressed as a fraction) of material] X [2 lbs SO₂ / lb of sulfur]

where material input rate = material output rate (lbs / hr) X material loss factor (currently 1.0)

Note: The permittee shall document any change in the loss factor that results from process adjustments.

$$\text{II. SO}_2 \text{ emission rate (tons/month)} = [\text{monthly production batch weight (lbs)}] \times [(\text{ton}/ 2,000 \text{ lbs})] \times [\text{percent sulfur content of material}] \times [2 \text{ lbs SO}_2 / \text{lb of sulfur}]$$

The SO₂ emission rate in tons/ month will be summed to calculate the yearly SO₂ emissions (tons per year).

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

- E8-2.** The stated capacity of this source is 730 lb per hour of coke and carbonaceous materials. Should the permittee need to modify the source(s) 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 June 21, 2021, from the permittee

Compliance Method: 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.

- E8-3.** Particulate matter emitted from this source shall not exceed 1.92 pounds per hour on a daily average basis.

TAPCR 1200-03-07-.03(1) and the application dated June 21, 2021, from the permittee

Compliance Method: Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions by following the PROTOCOL FOR DETERMINATION OF BAGHOUSE VISIBLE EMISSIONS (Attachment 2) when the baghouse is in operation as prescribed in the permittee's COMPLIANCE ASSURANCE MONITORING (CAM) PLAN dated included in the application dated June 21, 2021, that is enclosed as **Attachment 4**.

If during the observation visible emissions are observed, a certified observer will conduct a visual emission evaluation in accordance with VEE Method 9 or shut the source (or part of the source) down. If the reading results in opacity greater than 20%, the control device will be shut down and the appropriate maintenance action implemented. If the reading results in opacity greater than 0% but less than 20%, the source may continue operation until the next scheduled shutdown. However, daily visible emissions must be conducted until the appropriate maintenance action has been taken to return the source to zero visible emissions. VEE Method 9 opacity matrix is provided as **Attachment 1** of this permit.

A written log of the daily visible emission observations and any VEE Method 9 observations will be maintained at the facility and be available for inspection by the Tennessee Division of Air Pollution Control personnel. These records shall be retained in accordance with **Condition E3-3** of this permit.

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

- E8-3.** Visible emissions from this source shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.03(6), TAPCR 1200-03-05-.01(1) and the application dated June 21, 2021, from the permittee

Compliance method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) that is enclosed as Attachment 1. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

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.

50-0003-07	Source Description:	Carbon Cement Blending and Packing: Cement materials are formulated and mixed in a blender in Building 5. After mixing, the cement is manually packaged. Bagfilter type dust collector control (exhaust stack emission point D11). This source has a Compliance Assurance Monitoring (CAM) plan.
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Conditions **E9-1** and **E9-2** apply to source 50-0003-07 as indicated.

- E9-1.** The stated capacity of this source is 1,185 lb per hour of cement materials. Should the permittee need to modify the source(s) 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 June 21, 2021, from the permittee

Compliance Method: 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.

- E9-2.** Particulate matter emitted from this source shall not exceed 0.25 grains per dry standard cubic foot (2.19 lb per hour).

TAPCR 1200-03-07-.04(2) and the application dated June 21, 2021, from the permittee

Compliance Method: Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions by following the PROTOCOL FOR DETERMINATION OF BAGHOUSE VISIBLE EMISSIONS (Attachment 2) when the baghouse is in operation as prescribed in the permittee's COMPLIANCE ASSURANCE MONITORING (CAM) PLAN dated included in the application dated June 21, 2021, that is enclosed as **Attachment 4**.

If during the observation visible emissions are observed, a certified observer will conduct a visual emission evaluation in accordance with VEE Method 9 or shut the source (or part of the source) down. If the reading results in opacity greater than 20%, the control device will be shut down and the appropriate maintenance action implemented. If the reading results in opacity greater than 0% but less than 20%, the source may continue operation until the next scheduled shutdown. However, daily visible emissions must be conducted until the appropriate maintenance action has been taken to return the source to zero visible emissions. VEE Method 9 opacity matrix is provided as **Attachment 1** of this permit.

A written log of the daily visible emission observations and any VEE Method 9 observations will be maintained at the facility and be available for inspection by the Tennessee Division of Air Pollution Control personnel. These records shall be retained in accordance with **Condition E3-3** of this permit.

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

- E9-3.** Visible emissions from this source shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.03(6), TAPCR 1200-03-05-.01(1) and the application dated June 21, 2021, from the permittee

Compliance method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) that is enclosed as Attachment 1. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

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.

50-0003-15	Source Description:	Graphite Milling: At Building 5, graphitized materials from the graphitization furnace and off-site generated graphitic materials are milled to reduce the particle size. Bagfilter control (exhaust stack emission point D17). This source has a Compliance Assurance Monitoring (CAM) plan.
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Conditions **E10-1** and **E10-2** apply to source 50-0003-15 as indicated.

- E10-1.** The stated design capacity of this source is 1,000 lb per hour of graphitized materials. Should the permittee need to modify the source(s) 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 June 21, 2021, from the permittee

Compliance Method: 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.

- E10-2.** Particulate matter emitted from this source shall not exceed a maximum of 2.3 lb per hour.

TAPCR 1200-03-07-.03(1) and the application dated June 21, 2021, from the permittee

Compliance Method: Compliance with this limitation shall be assured by performing daily observations for the presence of visible emissions when the baghouse is in operation as prescribed in the protocol dated November 9, 2001. The protocol will utilize the U.S. EPA modified Method 22 like procedure that is enclosed as **Attachment 2**.

If during the observation visible emissions are observed, a certified observer will conduct a visual emission evaluation in accordance with VEE Method 9 or shut the source (or part of the source) down. If the Method 9 reading results in opacity greater than 20%, the control device will be shut down and the appropriate maintenance action implemented. If the reading results in opacity greater than 0% but less than 20%, the source may continue operation until the next scheduled shutdown. However, daily visible emissions must be conducted until the appropriate maintenance action has been taken to return the source to zero visible emissions. VEE Method 9 opacity matrix is provided as **Attachment 1** of this permit.

A written log of the daily visible emission observations and any VEE Method 9 observations will be maintained at the facility and be available for inspection by the Tennessee Division of Air Pollution Control personnel. These records shall be retained in accordance with **Condition E3-3** of this permit.

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

- E10-3.** Visible emissions from this source shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.03(6), TAPCR 1200-03-05-.01(1) and the application dated June 21, 2021, from the permittee

Compliance Method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) that is enclosed as Attachment 1. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

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.

50-0003-16	Source Description:	Unmilled Graphite Airveyor: The unmilled graphite materials are transferred through an airveying system which exhausts through a bagfilter dust collector (stack emission point D19). This source has a Compliance Assurance Monitoring (CAM) plan.
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Conditions **E11-1** and **E11-2** apply to source 50-0003-16 as indicated.

- E11-1.** The stated capacity of this source is 1,000 lb per hour of graphite materials. Should the permittee need to modify the source(s) 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 June 21, 2021, from the permittee

Compliance Method: 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.

- E11-2.** Particulate matter emitted from this source shall not exceed 0.25 grains per dry standard cubic foot (1.29 lb/hr).

TAPCR 1200-03-07-.04(2) and the application dated June 21, 2021, from the permittee

Compliance Method: Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions by following the PROTOCOL FOR DETERMINATION OF BAGHOUSE VISIBLE EMISSIONS (**Attachment 2**) when the baghouse is in operation as prescribed in the permittee's COMPLIANCE ASSURANCE MONITORING (CAM) PLAN dated included in the application dated June 21, 2021, that is enclosed as **Attachment 4**.

If during the observation visible emissions are observed, a certified observer will conduct a visual emission evaluation in accordance with VEE Method 9 or shut the source (or part of the source) down. If the reading results in opacity greater than 20%, the control device will be shut down and the appropriate maintenance action implemented. If the reading results in opacity greater than 0% but less than 20%, the source may continue operation until the next scheduled shutdown. However, daily visible emissions must be conducted until the appropriate maintenance action has been taken to return the source to zero visible emissions. VEE Method 9 opacity matrix is provided as **Attachment 1** of this permit.

A written log of the daily visible emission observations and any VEE Method 9 observations will be maintained at the facility and be available for inspection by the Tennessee Division of Air Pollution Control personnel. These records shall be retained in accordance with **Condition E3-3** of this permit.

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

- E11-3.** Visible emissions from this source shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.03(6), TAPCR 1200-03-05-.01(1) and the application dated June 21, 2021, from the permittee

Compliance method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) that is enclosed as Attachment 1. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

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.

50-0003-34	Source Description:	ZT-Process: Carbon blocks manufactured at off-site facilities are heated in an electric induction furnace and pressed for densification of the material. Furnace exhaust emission point E-19. Emissions from this source are uncontrolled.
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Conditions **E12-1** and **E12-2** apply to source 50-0003-34 as indicated.

E12-1. Particulate matter emitted from this source shall not exceed 2.03 lb per hour.

TAPCR 1200-03-07-.02(4) and the application dated June 21, 2021, from the permittee

Compliance Method: Compliance with this limitation shall be assured by recordkeeping. The total product input weight shall be determined and recorded prior to processing each item. The total product weight shall consist of the product itself, the rams, and insulating material. Total product weight shall not include the baseplate, canister, or heating ring. Also, the product heating time shall be recorded. The emission factor for the process is 0.002429 lb of particulate matter per pound of product input. The emissions shall be calculated by the following equation:

$$\text{Emissions (lb/hr)} = \frac{\text{product weight (lb)} * \text{emission factor (lb particulate /lb product input)}}{\text{Heating time (hr)}}$$

The average hourly emissions for any month in which this source operates shall be calculated and recorded in electronic or manual format. These records shall be retained in accordance with **Condition E3-3**.

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

E12-2. Visible emissions from this source shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.03(6), TAPCR 1200-03-05-.01(1) and the application dated June 21, 2021, from the permittee

Compliance method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) that is enclosed as Attachment 1. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

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.

50-0003-35	Source Description:	Brick Plant Pitch Airveyor: Pitch materials are transferred to the Brick Plant (Building 1) through an airveying system. Bagfilter dust collector control (exhaust stack emission point D22). This source has a Compliance Assurance Monitoring (CAM) plan.
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Conditions **E13-1** and **E13-2** apply to source 50-0003-35 as indicated.

E13-1. The stated capacity of this source is 2,000 lb per hour of pitch materials. Should the permittee need to modify the source(s) 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 June 21, 2021, from the permittee

Compliance Method: 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.** Particulate matter emitted from this source shall not exceed 0.25 grains per dry standard cubic foot (1.88 lb/hr).

TAPCR 1200-03-07-.04(2) and the application dated June 21, 2021, from the permittee

Compliance Method: Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions by following the PROTOCOL FOR DETERMINATION OF BAGHOUSE VISIBLE EMISSIONS (**Attachment 2**) when the baghouse is in operation as prescribed in the permittee's COMPLIANCE ASSURANCE MONITORING (CAM) PLAN included in the application dated June 21, 2021, that is enclosed as **Attachment 4**.

If during the observation visible emissions are observed, a certified observer will conduct a visual emission evaluation in accordance with VEE Method 9 or or shut the source (or part of the source) down. If the reading results in opacity greater than 20%, the control device will be shut down and the appropriate maintenance action implemented. If the reading results in opacity greater than 0% but less than 20%, the source may continue operation until the next scheduled shutdown. However, daily visible emissions must be conducted until the appropriate maintenance action has been taken to return the source to zero visible emissions. VEE Method 9 opacity matrix is provided as **Attachment 1** of this permit.

A written log of the daily visible emission observations and any VEE Method 9 observations will be maintained at the facility and be available for inspection by the Tennessee Division of Air Pollution Control personnel. These records shall be retained in accordance with **Condition E3-3** of this permit.

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

- E13-3.** Visible emissions from this source shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.03(6), TAPCR 1200-03-05-.01(1) and the application dated June 21, 2021, from the permittee

Compliance method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) that is enclosed as Attachment 1. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

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.

50-0003-47	Source Description:	Graphite Rigid Insulation Process: Graphite felt is primed with water and furfuryl alcohol. A GRI Unit is composed of five subassemblies. The units are then cured in one of two natural gas fired ovens. Also, the two ovens of this source may be used to cure header pusher electrode assemblies (see source 50-0003-48). Oven nominal heat input capacity of 0.5 MMBtu/hr - each unit. For fee purposes emissions from combustion of natural gas for NOx, VOC, and SO₂ are negligible and therefore are not required to be accounted for at this source.
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Conditions **E14-1** through **E14-6** apply to source 50-0003-47 as indicated.

- E14-1.** The maximum heat input capacity for this source shall not exceed a total of 1,000,000 Btu per hour. Should the permittee need to modify the source in a manner that increases the maximum 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), construction permit 953208P and the application dated June 21, 2021, from the permittee

Compliance Method: The permittee shall maintain documentation to demonstrate the heat input rate for the graphite rigid insulation process. 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.

- E14-2.** Only natural gas shall be used as fuel for this source. Should the permittee need to modify the source to allow the use of a fuel other than natural gas, 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), construction permit 953208P the application dated June 21, 2021, from the permittee

Compliance Method: Compliance with this restriction shall be assured annually by certification per **Condition E2(b)**.

- E14-3.** Particulate matter emitted from this source shall not exceed 0.6 lb per million British Thermal Units (lb/MMBtu) (0.6 lb per hour).

TAPCR 1200-03-06-.02(2) and the application dated June 21, 2021, from the permittee

Compliance Method: Compliance with this emission limitation is assured by compliance with **E14-2** and the emission factor of 0.007 lb/MMBtu (7.6 lb/10⁶ scf) from AP-42, Chapter 1, Table 1.4-2.

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

- E14-4.** Volatile organic compounds (VOC) emitted from this source shall not exceed 4.4 tons during any consecutive 12-month period.

TAPCR 1200-03-07-.07(2), construction permit 953208P, and the application dated June 21, 2021, from the permittee

Compliance Method: The permittee shall calculate actual emissions of VOCs emitted during each calendar month and each period of 12-consecutive months and maintain records of the emissions in the log, in the example format below, or in an alternative format, which readily provides the same information.

MONTHLY EMISSION LOG FOR SOURCE 50-0003-47

			Month	Year
Process Materials	Usage (lb)	Material Density (lb/gal)	VOC Content (lb/lb)	VOC Emitted (ton/month)
Material #1				
Material #2				
Etc.				
Total				

YEARLY VOC EMISSIONS LOG FOR SOURCE 50-0003-47

Month/Year	VOC Emissions (Tons per Month)	VOC* Emissions Tons Per 12 months

*The Tons per 12 Months value is the sum of the VOC emissions in the 11 months preceding the month just completed + the VOC emissions in the month just completed. This log is the total amount of VOC emitted to the air on a 12-month consecutive basis.

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

- E14-5.** The as-supplied VOC and HAP content of all VOC and HAP-containing materials (all coatings, inks, adhesives, thinners, and solvents) to be used by this source shall be determined from Safety Data Sheets (SDS) or manufacturer or vendor formulation data which explicitly list the VOC and HAP content by weight. If new materials are used, or if material formulation is changed,

logs used to calculate emissions of VOC and HAP shall be updated within 30 days from the initial date of usage of the new or altered material.

Compliance Method: Purchase orders and/or invoices for all VOC- and HAP-containing materials, along with current SDS, must be maintained and kept available for inspection by the Technical Secretary or a Division representative. The SDS must explicitly list the VOC and HAP content by weight for all VOC- and HAP-containing materials. If SDS are not available with this information, vendor formulation data containing the required information for those materials must also be maintained. These records must be retained in accordance with **Condition E3-3**. Scanned documents (maintained electronically) may be used to fulfill this requirement.

- 14-6.** Visible emissions from this source shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

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

Compliance method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) that is enclosed as Attachment 1. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

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.

50-0003-48	Source Description: <u>Graphite Machining:</u> Four graphite electrodes are machined and cemented together using precoating and carbonaceous cement, both containing furfuryl alcohol. The electrodes are drilled to produce a header electrode/ pusher electrode assembly. The electrode assemblies are cured in the GRI ovens of source 50-0003-47. Baghouse for dust control. This source has a Compliance Assurance Monitoring (CAM) plan.
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Conditions **E15-1** and **E15-2** apply to source 50-0003-48 as indicated.

- E15-1.** The stated input design capacity of this source is 468 lb per hour of electrodes. This condition is a statement of the capacity for the source(s). Should the permittee need to modify the source(s) 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 June 21, 2021, from the permittee

Compliance Method: 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.** Particulate matter (PM) emitted from this source shall not exceed a maximum of 1.46 lb per hour.

TAPCR 1200-03-07-.03(1), the application dated June 21, 2021, from the permittee, and Construction Permit 953209P

Compliance Method: Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions by following the PROTOCOL FOR DETERMINATION OF BAGHOUSE VISIBLE EMISSIONS (**Attachment 2**) when the baghouse is in operation as prescribed in the permittee's COMPLIANCE ASSURANCE MONITORING (CAM) PLAN included in the application dated June 21, 2021, that is enclosed as **Attachment 4**.

If during the observation visible emissions are observed, a certified observer will conduct a visual emission evaluation in accordance with VEE Method 9 or shut the source (or part of the source) down. If the reading results in opacity greater than 20%, the control device will be shut down and the appropriate maintenance action implemented. If the reading results in opacity greater

than 0% but less than 20%, the source may continue operation until the next scheduled shutdown. However, daily visible emissions must be conducted until the appropriate maintenance action has been taken to return the source to zero (0) visible emissions. VEE Method 9 opacity matrix is provided as **Attachment 1** of this permit.

A written log of the daily visible emission observations and any VEE Method 9 observations will be maintained at the facility and be available for inspection by the Tennessee Division of Air Pollution Control personnel. These records shall be retained in accordance with **Condition E3-3** of this permit.

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

- E15-3.** Visible emissions from this source shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

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

Compliance method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) that is enclosed as Attachment 1. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

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.

50-0003-49	Source Description:	Carbon Brick Manufacturing Press 7: Recycled graphite and carbon particles are charged into a brick press where hydraulic pressure and electrical resistance heating is applied to form and bake each brick on a batch basis. The bricks are released from the press, sprayed with water to aid cooling, and transferred to a pallet for air cooling. A wet caustic scrubber is used in conjunction with a bagfilter dust collector, which controls emissions from the brick press. Stack BP-2 This source has a Compliance Assurance Monitoring (CAM) plan.
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Conditions **E16-1** through **E16-3** apply to source 50-0003-49 as indicated.

- E16-1.** Particulate matter emitted from this source shall not exceed a maximum of 1.67 lb per hour.

Note: Due to the nature of this operation, total suspended particulates (TSP) are quantified as PM₁₀.

TAPCR 1200-03-07-.3(1) and the application dated June 21, 2021, from the permittee

Compliance Method: Compliance demonstration for PM₁₀ is based on test data obtained from the compliance test performed on March 31, 2005. During the test the total PM₁₀ emissions from this source was 0.51 lb/hr based on the average of sample runs two and three. This value demonstrates compliance with the particulate emission limit. Continual compliance with this requirement shall be assured by:

Performing daily observations for the presence of visible emissions by following the PROTOCOL FOR DETERMINATION OF BAGHOUSE VISIBLE EMISSIONS (**Attachment 2**) when the baghouse is in operation as prescribed in the permittee's COMPLIANCE ASSURANCE MONITORING (CAM) PLAN dated included in the application dated June 21, 2021, that is enclosed as **Attachment 4**.

If during the observation visible emissions are observed, a certified observer will conduct a visual emission evaluation in accordance with VEE Method 9 or shut the source (or part of the source) down. If the reading results in opacity greater than 20%, the control device will be shut down and the appropriate maintenance action implemented. If the reading results in opacity greater than 0% but less than 20%, the source may continue operation until the next scheduled shutdown. However, daily visible emissions must be conducted until the appropriate maintenance action has been taken to return the source to zero (0) visible emissions. VEE Method 9 opacity matrix is provided as **Attachment 1** of this permit.

A written log of the daily visible emission observations and any VEE Method 9 observations will be maintained at the facility and be available for inspection by the Tennessee Division of Air Pollution Control personnel. These records shall be retained in accordance with **Condition E3-3** of this permit.

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

- E16-2.** Sulfur dioxide (SO₂), Hydrogen sulfide (H₂S), and Total reduced sulfur (TRS) emitted from this source shall not exceed the following:

Pollutant	Emissions (lb / hour)	Emissions (Tons / year)	TAPCR
SO ₂	7.3	32.00	1200-03-14-.03(5)
H ₂ S	0.88	3.85	1200-03-07-.01(5)
TRS	1.76	7.70	1200-03-07-.07(2)

Compliance Method: Compliance with these limitations shall be assured by maintaining a pH between 9.0 and 13.0, and a minimum flow rate of 80 gallons per minute of the scrubbing liquid for the second stage of the packed bed scrubber as prescribed in the permittee's COMPLIANCE ASSURANCE MONITORING (CAM) PLAN included in the application dated June 21, 2021, that is enclosed as **Attachment 5**. The pH and flow rate shall be recorded once daily when the source is in operation. The days when the source does not operate shall be noted. Routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control devices. Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be kept in accordance with **Condition E3-3**.

TAPCR 1200-03-09-.02(11)(e)1(iii) and construction permit 956998P

This source shall not operate without the use a wet caustic scrubber.

In the event it becomes necessary to demonstrate compliance with the emission rates above, the following table provides emission factors for calculations. These factors may be replaced with the most recent performance test, provided the Technical Secretary has accepted the test results.

EMISSION FACTORS FOR BRICK PRODUCTION PRESS 7

Pollutant	Emission Factors (lb. emitted / lb. material input)
	High Sulfur Brick
TSP	0.00101
VOC*	0.00294
SO ₂	0.00438
H ₂ S	0.000525
TRS	0.00105
CS ₂ *	0.00026
COS*	0.00012
Particulate HAP*	0.000665

* VOC, CS₂, COS, and Particulate HAP are listed for fee purposes. VOC emissions were calculated to be 21.5 tons per year based on maximum material input rate in the Title V application.

TAPCR 1200-3-9-.02(11)(e)1(iii), the application dated June 21, 2021, from the permittee, and Construction Permit 956998P

- E16-3.** Visible emissions from this source shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

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

Compliance method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) that is enclosed as Attachment 1. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

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.

Permit Number 578962

Expiration Date: DRAFT

END OF PERMIT NUMBER: 578962

ATTACHMENT 1

**OPACITY MATRIX DECISION TREE for
VISIBLE EMISSION EVALUATION METHOD 9
dated JUNE 18, 1996, and 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, SO₂, 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.

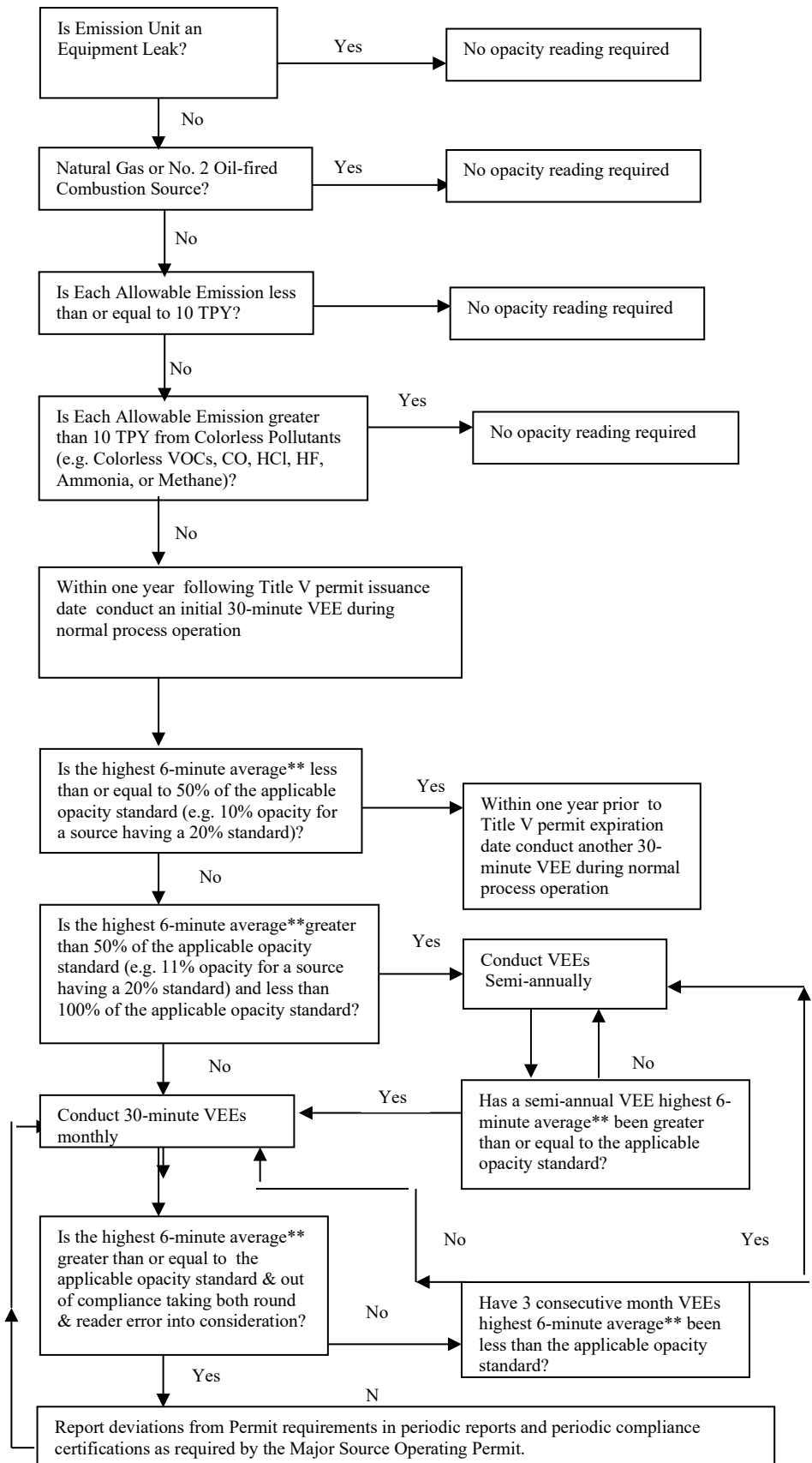
Reader Error
EPA Method 9, Non-NSPS or NESHAPS stipulated opacity standards:
The TAPCD guidance is to declare non-compliance when the highest six-minute average** exceeds the standard plus 6.8% opacity (e.g. 26.8% for a 20% standard).

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

**PROTOCOL FOR DETERMINATION OF BAGHOUSE
VISIBLE EMISSIONS**

**Visual Emission Observation Training
U. S. EPA Modified Method 22-Like Procedure
GT Refractory Solutions LLC
Lawrenceburg, Tennessee**

In order to ensure compliance with the particulate matter limits specific to emission sources 50-0003-01, -02, -03, -06, -07, -15, -16, -35, -48, and -49, this permit requires only the determination of whether a visible emission is present, and not the determination of opacity levels. Field training will be used in conjunction with the parameters identified in the training procedure below to qualify GT employees responsible for determining the presence of visible emissions, utilizing a U. S. EPA modified Method 22-like Procedure. A certified EPA Method 9 Visible Emissions Evaluator shall conduct the training. Training shall be documented.

Training Procedure

1. Identification of Sources Requiring Visible Emission Determination

- Carbon Brick Manufacturing and Paste Mixing Operation (Source No. 50-0003-01, Brick Plant Dust Collector No. BP-1 or BP-1A)
- Material Crushing, Sizing and Bulk Storage (Source No. 50-0003-02, Bulk Systems Dust Collector No. D-12, and Scrap Crusher Dust Collector No. D-6)
- Brick Plant Airveyor (Source No. 50-0003-03, Dust Collector No. D-7)
- Graphitizing Process (Source No. 50-0003-06, S-Furnace Dust Collector No. D-26)
- Carbon Cement Blending and Packing (Source No. 50-0003-07, Dust Collector No. D-11)
- Graphite Milling (Source No. 50-0003-15, Dust Collector No. D-17)
- Unmilled Graphite Airveyor (Source No. 50-0003-16, Dust Collector No. D-19)
- Brick Plant Pitch Airveyor (Source No. 50-0003-35, Dust Collector No. D-22)
- Graphite Machining (Source No. 50-0003-48, Dust Collector No. D-36)
- Carbon Brick Manufacturing Press 7 (Source No. 50-0003-49, Dust Collector No. BP-2)

2. Frequency of Observations

- Observations are required daily.
- Observations shall be made only during daylight hours.

3. Position of Observer Conducting Visible Emission Evaluation

- The observer must stand at a distance that provides total perspective and a good view of the baghouse exhaust stack.
- The distance from the exhaust stack shall be at least 15 feet but not more than 0.25 mile from the base of the stack.
- The sun should be oriented to the observer's back. During overcast weather conditions the position of the sun is less important.
- The location must be safe for the observer.
- The observer shall determine whether visible emissions are present by visually observing the exhaust stack of the baghouse.

1. Permit 563249 was the original permit allowing this method of visible emission compliance. This method will apply to sources 50-0003-01, -02, -03, -06, -07, -15, -16, -35, -48, and -49 in this Title V permit 578962.

4. Documentation Requirements

The visible emission evaluation shall be documented and include the following:

- The observer's name,
- Date of the observation,
- Clock time when the observation is conducted,
- Emission source number,
- Baghouse identification and location, and
- Whether or not any visible emissions are observed from the baghouse exhaust stack and any relevant information.

If the process is shut down, or is not in operation during daylight hours, "NIO" (Not in Operation) shall be recorded in the comments section of the *Visible Emissions Evaluation Form*.

5. Procedure if Visible Emissions Are Present

- If visible emissions are present, a certified observer will conduct an EPA Method 9 visible emission observation OR the baghouse will be shut down.
- If the certified reading is 0% opacity, continue operation as normal,
- If the certified reading is between 0% and 20% opacity, the source may continue to operate until the next scheduled shutdown, however daily certified visible emission readings must be conducted until maintenance action has been taken to return the source to zero visible emissions.'
- If the certified reading is greater than 20%, the source shall be shut down until the appropriate maintenance action is implemented.

6. Retention of Documentation

- The completed *Visible Emissions Observation Form* shall be forwarded to the Health, Safety & Environmental Protection (HS&EP) Department.
- The documentation shall be retained for a period of not less than five (5) years by the HS&EP Department.

ATTACHMENT 3

Title V Fee Selection



DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF AIR POLLUTION CONTROL
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor, Nashville, TN 37243
Telephone: (615) 532-0554, Email: Air.Pollution.Control@TN.gov

APC 36

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)	
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[illegible]

CONTACT INFORMATION (BILLING)	
NAME	
ADDRESS	
CITY	
STATE	
ZIP	
PHONE	
FAX	
EMAIL	

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

ATTACHMENT 4

COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

Compliance Assurance Monitoring General Requirements

The following requirements apply to all pollutant-specific emissions units subject to 40 CFR Part 64.

Proper maintenance: At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. 40 CFR §64.7(b)

Continued operation: Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. 40 CFR §64.7(c)

Response to excursions or exceedances: Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. §64.7(d)

Documentation of need for improved monitoring: The owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the Title V permit to address necessary monitoring changes if either of the following circumstances occur:

- (1) The owner or operator identifies a failure to comply with an emission limitation or standard, for which the monitoring provided valid data but did not indicate an excursion or exceedance; or
- (2) The results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions.

The permit modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. §64.7(e)

Minimum data availability: The permit shall specify, if appropriate, a minimum data availability requirement for valid data collection for each averaging period, and, if appropriate, a minimum data availability requirement for the averaging periods in a reporting period. Pursuant to TAPCR 1200-03-10-.04(2)(a)2, the monitoring methods subject to 40 CFR Part 64 must have at least a 95% operational availability rate to prove compliance directly or indirectly with the applicable requirements unless otherwise stipulated by the Technical Secretary in the permit. Missing data in excess of these levels shall be grounds for enforcement action. 40 CFR §64.6(c)(4), TAPCR 1200-03-10-.04(2)(a)2.

Quality Improvement Plan (QIP): Based on the results of a determination made under §64.7(d)(2)¹, the EPA Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. The permittee shall comply with the provisions of §64.8 upon written notice from the Technical Secretary. 40 CFR §64.8.

Reporting requirements: On and after the date by which the owner or operator must commence monitoring, the owner or operator shall submit monitoring reports to the permitting authority in accordance with **Condition E2(a)** of this permit. At a

¹ Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

minimum, the report shall include the information required under §70.6(a)(3)(iii)² and the following information, as applicable:

- (1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
- (2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- (3) A description of any actions taken to implement a QIP during the reporting period.

40 CFR §64.9(a)

Recordkeeping requirements: The owner or operator shall comply with the recordkeeping requirements specified in §70.6(a)(3)(ii)³. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement the plan, and other supporting information (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Instead of paper records, the owner or operator may maintain records on alternative media, provided that the use of alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. 40 CFR §64.9(b).

² With respect to reporting, the permit shall incorporate all applicable reporting requirements and require the following: (A) Submittal of reports of any required monitoring at least every 6 months. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with § 70.5(d) of this part. (B) Prompt reporting of deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. The permitting authority shall define “prompt” in relation to the degree and type of deviation likely to occur and the applicable requirements.

³ The permit shall incorporate all applicable recordkeeping requirements and require, where applicable, 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 analyses; (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. The permit shall require retention of records of all required monitoring data and support information for a period of at least five 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.

Table of Contents

Introduction

50-0003-01- Carbon Brick Manufacturing and Paste Mixing Operation - **BP1, BP1A**

50-0003-02- Material Crushing, Sizing, and Bulk Storage - D12

50-0003-03 - Brick Plant Airveyor - D7

50-0003-06- Graphitizing Process - D26

50-0003-07 - Carbon Cement Blending and Packaging - D11

50-0003-15- Graphite Milling - D17

50-0003-16- Unmilled Graphite Airveyor - D19

50-0003-35 - Brick Plant Pitch Airveyor - D22 50-

0003-48- Graphite Machining - D36

50-0003-49- Carbon Brick Press #7 - **BP2**

INTRODUCTION

Compliance Assurance Monitoring Plans

The Compliance Assurance Monitoring (CAM) rule, as documented in 40 CFR Part 64, sets out requirements for Title V Sources to monitor the operation and maintenance of their control equipment. The CAM rule establishes criteria that define required monitoring of existing control devices to provide reasonable assurance of compliance with emission limits and standards. The goal of the monitoring is to help sources certify compliance under the Title V operating permits program.

For sources that meet the applicability criteria, the rule requires the facility to develop and conduct monitoring. The monitoring plan, known as the CAM Plan, must include an acceptable range within which to operate the control device (known as an “indicator range”). Operation of the control devices within acceptable ranges will minimize emissions and provide reasonable assurance that the facility is complying with the permit terms and conditions. Conversely, if control equipment is found to be operating outside acceptable ranges, prompt corrective actions are necessary to return it to a normal operating status.

According to the provisions of the CAM rule, applicability is assessed on a pollutant-specific emission unit (PSEU) basis. PSEUs are defined as emission units evaluated separately for each pollutant emitted. Thus, an emission unit that emits sulfur dioxide (SO₂), oxides of nitrogen (NO_x) and particulate matter (PM) is considered three separate PSEUs for the purposes of CAM. CAM plans are required if a PSEU meets all three of the following criteria (with certain exemptions as documented in the rule):

- (a) the unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof);
- (b) the unit uses a control device to achieve compliance with any such emission limitation or standard; and
- (c) the unit has potential pre-control device emissions of the applicable regulated air pollutant of equal to or greater than 100 tons per year.

GT Refractory Solutions

The facility manufactures carbon bricks for use in steel furnaces, carbon cement and paste, graphite flour, carbon, and graphite assemblies, and high temperature thermo wells composed of metal and ceramic. The facility is considered a major source under the definitions of 40 CFR Part 70.

Baghouses are employed on many of the sources to control particulate emissions in order to meet emission limits. Compliance demonstration monitoring for these emissions units under the initial Title V consisted of a daily visible emissions check per an approved protocol for the larger units and a quarterly preventive maintenance program for the smaller units. For those units that meet the CAM applicability thresholds, GT Refractory Solutions has elected to uniformly implement the daily visible emissions check as the basis of the CAM Plan.

CAM Applicability Analysis

As a precursor to developing CAM Plans, GT Refractory Solutions conducted a CAM applicability analysis. According to the applicability criteria as summarized above, only PSEU with control devices were considered. Additionally, since GT

Refractory Solutions has no data regarding the sizing of particulate matter emitted from our processes, we have chosen, at this time, to assume all particulate matter is PM10.

Table 1 CAM Applicability Analysis				
Emission Source Reference Number	Source Description	Emission Point(s)	CAM Applicable?	CAM Applicable Pollutant
50-0003-01	Carbon Brick Manufacturing and Paste Mixing Operation	BP-1 BP-1A	Yes	PM
50-0003-02	Material Crushing, Sizing, and Bulk Storage	D-6 D-12	Yes	PM
50-0003-03	Brick Plant Airveyor	D-7	Yes	PM
50-0003-04	Brick Plant Vac-U-Max System	D-29 D-30 D-31 D-32 D-33 D-34 D-35	No	
50-0003-06	Graphitizing Process	D-26	Yes	PM
50-0003-07	Carbon Cement Blending and Packing	D-11	Yes	PM
50-0003-15	Graphite Milling	D-17	Yes	PM
50-0003-16	Unmilled Graphite Airveyor	D-19	Yes	PM
50-0003-34	ZT Process		No	
50-0003-35	Brick Plant Pitch Airveyor	D-22	Yes	PM
50-0003-47	Graphite Rigid Insulation Process		No	
50-0003-48	Graphite Machining Process	D-36	Yes	PM
50-0003-49	Carbon Brick Manufacturing Press 7	BP-2	Yes	PM

CARBON BRICK MANUFACTURING AND PASTE MIXING OPERATION BP-1, BP-1A 50-0003-01

I. Background

A. Emissions Unit

- i. Description:
Carbon brick manufacturing and paste mixing operation
- ii. Identification:
Dust Collectors BP-1 and BP-1A
- iii. Facility:
GT Refractory Solutions International Holdings Inc.

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

- i. Regulation:
Title V Permit Condition E4-2 TAPCR1200-03-07-.03(1)
- ii. Emission Limits:
PM: 8.11 pounds per hour
- iii. Monitoring Requirements:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

C. Control Technology

- i. Dust collector

II. Monitoring Approach

A. Indicator

- i. Type:
Visible Emissions
- ii. Measurement Approach:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

B. Indicator Range:

An excursion is defined as the observed presence of visible emissions.

- i. Indicator Level:
No visible emissions
- ii. QIP Threshold :
The QIP threshold is five excursions in a six-month reporting period.

C. Performance Criteria

- i. Data Representativeness:
Measurements are made at the emission point and are indicative of good operation and maintenance of the baghouse.
- ii. Verification of Operational Status:
A verification of the operational status of the source is made before the observation is performed.
- iii. QA/QC Practices and Criteria:
All potential observers are educated on the general procedures of Method 22, for determining the presence of visible emissions.
- iv. Monitoring Frequency:
Daily
- v. Data Collection Procedure:
Results of the Method 22 observations are recorded daily and maintained on site for Regulatory Authority review.

III. Rationale for Selection of Performance Indicator

GT Refractory Solutions selected visible emissions as a performance indicator for this control device. Experience indicates that given proper operation and maintenance, there should be no Method 22-like observations. The presence of visible emissions therefore indicates the possibility of a malfunction in the control device.

IV. Rationale for Selection of Indicator Level

GT Refractory Solutions selected no visible emissions when observed by and individual trained (but not necessarily certified) in Method 22-like observations. No visible emissions were selected because:

- It does not require qualitative assessment by the observer as to the degree of opacity
- Is clearly indicative of a potential malfunction of the control device

The selected QIP threshold for baghouse visible emissions is five excursions in a six-month reporting period. This level is three percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

Material Crushing, Sizing, and Bulk Storage- D-6, D-12 50-0003-02

I. Background

A. Emissions Unit

- i. Description:
Material Crushing, Sizing, and Bulk Storage

ii. Identification:
Dust Collectors D-6 and D-12

iii. Facility:
GT Refractory Solutions International Holdings Inc.

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

i. Regulation:
Title V Permit Condition E5-2 TAPCR1200-03-07-.03(1)

ii. Emission Limits:
PM: 14.5 pounds per hour

iii. Monitoring Requirements:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

C. Control Technology

i. Dust collector

II. Monitoring Approach

A. Indicator

i. Type:
Visible Emissions

ii. Measurement Approach:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

B. Indicator Range

An excursion is defined as the observed presence of visible emissions.

i. Indicator Level:
No visible emissions

ii. QIP Threshold :
The QIP threshold is five excursions in a six-month reporting period.

C. Performance Criteria

i. Data Representativeness:

Measurements are made at the emission point and are indicative of good operation and maintenance of the baghouse.

- ii. Verification of Operational Status:
A verification of the operational status of the source is made before the observation is performed.
- iii. QA/QC Practices and Criteria:
All potential observers are educated on the general procedures of Method 22, for determining the presence of visible emissions.
- iv. Monitoring Frequency:
Daily
- v. Data Collection Procedure:
Results of the Method 22 observations are recorded daily and maintained on site for Regulatory Authority review.

III. **Rationale for Selection of Performance Indicator**

GT Refractory Solutions selected visible emissions as a performance indicator for this control device. Experience indicates that given proper operation and maintenance, there should be no visible emissions when observed by individuals trained (but not necessarily certified) Method 22-like observations. The presence of visible emissions therefore indicates the possibility of a malfunction in the control device.

IV. **Rationale for Selection of Indicator Level**

GT Refractory Solutions selected no visible emissions when observed by and individual trained (but not necessarily certified) in Method 22-like observations. No visible emissions were selected because:

- It does not require qualitative assessment by the observer as to the degree of opacity
- Is clearly indicative of a potential malfunction of the control device

The selected QIP threshold for baghouse visible emissions is five excursions in a six-month reporting period. This level is three percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

Brick Plant Airveyor - D-7 50-0003-03

I. **Background**

A. **Emissions Unit**

- i. Description:
Brick Plant Airveyor

- ii. Identification:
Dust Collector D-7
- iii. Facility:
GT Refractory Solutions International Holdings Inc.

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

- i. Regulation:
Title V Permit Condition E6-2 TAPCR1200-03-07-.04(2)
- ii. Emission Limits:
PM: 0.25 grains per dry standard cubic foot (10.5 pounds per hour)
- iii. Monitoring Requirements:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

C. Control Technology

- i. Dust collector

II. Monitoring Approach

A. Indicator

- i. Type:
Visible Emissions
- ii. Measurement Approach:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

B. Indicator Range

An excursion is defined as the observed presence of visible emissions.

- i. Indicator Level:
No visible emissions
- ii. QIP Threshold:
The QIP threshold is five excursions in a six-month reporting period.

C. Performance Criteria

- i. Data Representativeness:

Measurements are made at the emission point and are indicative of good operation and maintenance of the baghouse.

- ii. Verification of Operational Status:
A verification of the operational status of the source is made before the observation is performed.
- iii. QA/QC Practices and Criteria:
All potential observers are educated on the general procedures of Method 22, for determining the presence of visible emissions.
- iv. Monitoring Frequency:
Daily
- v. Data Collection Procedure:
Results of the Method 22 observations are recorded daily and maintained on site for Regulatory Authority review.

III. **Rationale for Selection of Performance Indicator**

GT Refractory Solutions selected visible emissions as a performance indicator for this control device. Experience indicates that given proper operation and maintenance, there should be no visible emissions when observed by individuals trained (but not necessarily certified) Method 22-like observations. The presence of visible emissions therefore indicates the possibility of a malfunction in the control device.

IV. **Rationale for Selection of Indicator Level**

GT Refractory Solutions selected no visible emissions when observed by and individual trained (but not necessarily certified) in Method 22-like observations. No visible emissions were selected because:

- It does not require qualitative assessment by the observer as to the degree of opacity
- Is clearly indicative of a potential malfunction of the control device

The selected QIP threshold for baghouse visible emissions is five excursions in a six-month reporting period. This level is three percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

Graphitizing Process- D-26 50-0003-06

I. Background

A. Emissions Unit

- i. Description:
Graphitizing Process

- ii. Identification:
Dust Collector D-26
- iii. Facility:
GT Refractory Solutions International Holdings Inc.

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

- i. Regulation:
Title V Permit Condition E8-3 TAPCR1200-03-07- .04(1)
- ii. Emission Limits:
PM: 0.02 grain per dry standard cubic foot (1.6 pounds per hour)
- iii. Monitoring Requirements:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

C. Control Technology

- i. Dust collector

II. Monitoring Approach

A. Indicator

- i. Type:
Visible Emissions
- ii. Measurement Approach:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

B. Indicator Range

An excursion is defined as the observed presence of visible emissions.

- i. Indicator Level:
No visible emissions
- ii. QIP Threshold:
The QIP threshold is five excursions in a six-month reporting period.

C. Performance Criteria

- i. Data Representativeness;

Measurements are made at the emission point and are indicative of good operation and maintenance of the baghouse.

- ii. Verification of Operational Status:
A verification of the operational status of the source is made before the observation is performed.
- iii. QA/QC Practices and Criteria:
All potential observers are educated on the general procedures of Method 22, for determining the presence of visible emissions.
- iv. Monitoring Frequency:
Daily
- v. Data Collection Procedure:
Results of the Method 22 observations are recorded daily and maintained on site for Regulatory Authority review.

III. **Rationale for Selection of Performance Indicator**

GT Refractory Solutions selected visible emissions as a performance indicator for this control device. Experience indicates that given proper operation and maintenance, there should be no visible emissions when observed by individuals trained (but not necessarily certified) Method 22-like observations. The presence of visible emissions therefore indicates the possibility of a malfunction in the control device.

IV. **Rationale for Selection of Indicator Level**

GT Refractory Solutions selected no visible emissions when observed by and individual trained (but not necessarily certified) in Method 22-like observations. No visible emissions were selected because:

- It does not require qualitative assessment by the observer as to the degree of opacity
- Is clearly indicative of a potential malfunction of the control device

The selected QIP threshold for baghouse visible emissions is five excursions in a six-month reporting period. This level is three percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

Carbon Cement Blending and Packaging- D-11 50-0003-07

I. **Background**

A. **Emissions Unit**

- i. Description:
Carbon Cement Blending and Packaging

ii. Identification:
Dust Collector D-11

iii. Facility:
GT Refractory Solutions International Holdings Inc.

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

i. Regulation:

Title V Permit Condition E9-2 TAPCR 1200-03-07- .04(2)

ii. Emission Limits:

PM: 0.25 grains per dry standard cubic foot (2.19 pounds per hour)

iii. Monitoring Requirements:

Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

C. Control Technology

i. Dust collector

II. Monitoring Approach

A. Indicator

i. Type:

Visible Emissions

ii. Measurement Approach:

Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

B. Indicator Range

An excursion is defined as the observed presence of visible emissions.

i. Indicator Level:

No visible emissions

ii. QIP Threshold:

The QIP threshold is five excursions in a six-month reporting period.

C. Performance Criteria

i. Data Representativeness:

Measurements are made at the emission point and are indicative of good operation and maintenance of the baghouse.

- ii. Verification of Operational Status:
A verification of the operational status of the source is made before the observation is performed.
- iii. QA/QC Practices and Criteria:
All potential observers are educated on the general procedures of Method 22, for determining the presence of visible emissions.
- iv. Monitoring Frequency:
Daily
- v. Data Collection Procedure:
Results of the Method 22 observations are recorded daily and maintained on site for Regulatory Authority review.

III. Rationale for Selection of Performance Indicator

GT Refractory Solutions selected visible emissions as a performance indicator for this control device. Experience indicates that given proper operation and maintenance, there should be no visible emissions when observed by individuals trained (but not necessarily certified) Method 22-like observations. The presence of visible emissions therefore indicates the possibility of a malfunction in the control device.

IV. Rationale for Selection of Indicator Level

GT Refractory Solutions selected no visible emissions when observed by and individual trained (but not necessarily certified) in Method 22-like observations. No visible emissions were selected because:

- It does not require qualitative assessment by the observer as to the degree of opacity
- Is clearly indicative of a potential malfunction of the control device

The selected QIP threshold for baghouse visible emissions is five excursions in a six-month reporting period. This level is three percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

Graphite Milling- D-17 50-0003-15

I. Background

A. Emissions Unit

- i. Description:
Graphite Milling

ii. Identification:
Dust Collector D-17

iii. Facility:
GT Refractory Solutions International Holdings Inc.

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

i. Regulation:
Title V Permit Condition E10-2 TAPCR 1200-03-07-.07(3)

ii. Emission Limits:
PM: 2.3 pounds per hour

iii. Monitoring Requirements:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

C. Control Technology

i. Dust collector

II. Monitoring Approach

A. Indicator

ii. Type:
Visible Emissions

iii. Measurement Approach:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

B. Indicator Range

An excursion is defined as the observed presence of visible emissions.

iv. Indicator Level:
No visible emissions

v. QIP Threshold:
The QIP threshold is five excursions in a six-month reporting period.

C. Performance Criteria

vi. Data Representativeness:
Measurements are made at the emission point and are indicative of good operation and maintenance of the baghouse.

- vii. Verification of Operational Status:
A verification of the operational status of the source is made before the observation is performed.
- viii. QA/QC Practices and Criteria:
All potential observers are educated on the general procedures of Method 22, for determining the presence of visible emissions.
- ix. Monitoring Frequency:
Daily
- x. Data Collection Procedure:
Results of the Method 22 observations are recorded daily and maintained on site for Regulatory Authority review.

II. Rationale for Selection of Performance Indicator

GT Refractory Solutions selected visible emissions as a performance indicator for this control device. Experience indicates that given proper operation and maintenance, there should be no visible emissions when observed by individuals trained (but not necessarily certified) Method 22-like observations. The presence of visible emissions therefore indicates the possibility of a malfunction in the control device.

III. Rationale for Selection of Indicator Level

GT Refractory Solutions selected no visible emissions when observed by and individual trained (but not necessarily certified) in Method 22-like observations. No visible emissions were selected because:

- It does not require qualitative assessment by the observer as to the degree of opacity
- Is clearly indicative of a potential malfunction of the control device

The selected QIP threshold for baghouse visible emissions is five excursions in a six-month reporting period. This level is three percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

Unmilled Graphite Airveyor-D-19 50-0003-16

I. Background

A. Emissions Unit

- i. Description:
Unmilled Graphite Airveyor
- ii. Identification:
Dust Collector D-19

- iii. Facility:
GT Refractory Solutions International Holdings Inc.

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

- i. Regulation:
Title V Permit Condition Ell-2 TAPCR1200-03-07- .04(2)
- ii. Emission Limits:
PM: 0.25 grains per dry standard cubic foot (1.29 pounds per hour)
- iii. Monitoring Requirements:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

C. Control Technology

- i. Dust collector

II. Monitoring Approach

A. Indicator

- i. Type:
Visible Emissions
- ii. Measurement Approach:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

B. Indicator Range:

An excursion is defined as the observed presence of visible emissions.

- i. Indicator Level:
No visible emissions
- ii. QIP Threshold:
The QIP threshold is five excursions in a six-month reporting period.

C. Performance Criteria

- i. Data Representativeness:
Measurements are made at the emission point and are indicative of good operation and maintenance of the baghouse.
- ii. Verification of Operational Status:

A verification of the operational status of the source is made before the observation is performed.

iii. QA/QC Practices and Criteria:

All potential observers are educated on the general procedures of Method 22, for determining the presence of visible emissions.

iv. Monitoring Frequency:

Daily

v. Data Collection Procedure:

Results of the Method 22 observations are recorded daily and maintained on site for Regulatory Authority review.

III. **Rationale for Selection of Performance Indicator**

GT Refractory Solutions selected visible emissions as a performance indicator for this control device. Experience indicates that given proper operation and maintenance, there should be no visible emissions when observed by individuals trained (but not necessarily certified) Method 22-like observations. The presence of visible emissions therefore indicates the possibility of a malfunction in the control device.

IV. **Rationale for Selection of Indicator Level**

GT Refractory Solutions selected no visible emissions when observed by and individual trained (but not necessarily certified) in Method 22-like observations. No visible emissions were selected

- It does not require qualitative assessment by the observer as to the degree of opacity
- Is clearly indicative of a potential malfunction of the control device

The selected QIP threshold for baghouse visible emissions is five excursions in a six-month reporting period. This level is three percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

Brick Plant Pitch Airveyor- D-.22 50-0003-35

I. **Background**

A. **Emissions Unit**

- i. Description:
Brick Plant Pitch Airveyor
- ii. Identification:
Dust Collector D-22
- iii. Facility:

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

- i. Regulation:
Title V Permit Condition E13-2 TAPCR 1200-03-07-.04(2)
- ii. Emission Limits:
PM: 0.25 grains per dry standard cubic foot (1.88 pounds per hour)
- iii. Monitoring Requirements:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

C. Control Technology

- i. Dust collector

II. Monitoring Approach

A. Indicator

- i. Type:
Visible Emissions
- ii. Measurement Approach:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

B. Indicator Range:

An excursion is defined as the observed presence of visible emissions.

- i. Indicator Level:
No visible emissions
- ii. QIP Threshold:
The QIP threshold is five excursions in a six-month reporting period.

C. Performance Criteria

- i. Data Representativeness:
Measurements are made at the emission point and are indicative of good operation and maintenance of the baghouse.
- ii. Verification of Operational Status:
A verification of the operational status of the source is made before the observation is performed.

- iii. QA/QC Practices and Criteria:
All potential observers are educated on the general procedures of Method 22, for determining the presence of visible emissions.
- iv. Monitoring Frequency:
Daily
- v. Data Collection Procedure:
Results of the Method 22 observations are recorded daily and maintained on site for Regulatory Authority review.

III. Rationale for Selection of Performance Indicator

GT Refractory Solutions selected visible emissions as a performance indicator for this control device. Experience indicates that given proper operation and maintenance, there should be no visible emissions when observed by individuals trained (but not necessarily certified) Method 22-like observations. The presence of visible emissions therefore indicates the possibility of a malfunction in the control device.

IV. Rationale for Selection of Indicator Level

GT Refractory Solutions selected no visible emissions when observed by and individual trained (but not necessarily certified) in Method 22-like observations. No visible emissions were selected because:

- It does not require qualitative assessment by the observer as to the degree of opacity
- Is clearly indicative of a potential malfunction of the control device

The selected QIP threshold for baghouse visible emissions is five excursions in a six-month reporting period. This level is three percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

V. Rationale for Selection of Indicator Level

GT Refractory Solutions selected no visible emissions when observed by and individual trained (but not necessarily certified) in Method 22-like observations. No visible emissions were selected

- It does not require qualitative assessment by the observer as to the degree of opacity
- Is clearly indicative of a potential malfunction of the control device

The selected QIP threshold for baghouse visible emissions is five excursions in a six-month reporting period. This level is three percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

Carbon Brick Manufacturing Press 7-BP-2 50-0003-49

I. Background - PM

A. Emissions Unit

- i. Description:
Carbon Brick Manufacturing Press 7
- ii. Identification:
In-Line Dust Collector BP-2
- iii. Facility:
GT Refractory Solutions International Holdings Inc.

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

- i. Regulation:
Title V Permit Condition E16-1 TAPCR 1200-03-07-.01(5)
- ii. Emission Limits:
PM: 1.67 pounds per hour
- iii. Monitoring Requirements:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

C. Control Technology

- i. Dust collector

II. Monitoring Approach

A. Indicator

- i. Type:
Visible Emissions
- ii. Measurement Approach:
Daily observations for the presence of visible emissions using a modified EPA Method 22-like procedure

B. Indicator Range:

An excursion is defined as the observed presence of visible emissions.

- i. Indicator Level:
No visible emissions

- ii. QIP Threshold:
The QIP threshold is five excursions in a six-month reporting period.

C. Performance Criteria

- i. Data Representativeness:
Measurements are made at the emission point and are indicative of good operation and maintenance of the baghouse.
- ii. Verification of Operational Status:
A verification of the operational status of the source is made before the observation is performed.
- iii. QA/QC Practices and Criteria:
All potential observers are educated on the general procedures of Method 22, for determining the presence of visible emissions.
- iv. Monitoring Frequency:
Daily
- v. Data Collection Procedure:
Results of the Method 22 observations are recorded daily and maintained on site for Regulatory Authority review.

III. Rationale for Selection of Performance Indicator

GT Refractory Solutions selected visible emissions as a performance indicator for this control device. Experience indicates that given proper operation and maintenance, there should be no visible emissions when observed by individuals trained (but not necessarily certified) Method 22-like observations. The presence of visible emissions therefore indicates the possibility of a malfunction in the control device.

IV. Rationale for Selection of Indicator Level

GT Refractory Solutions selected no visible emissions when observed by and individual trained (but not necessarily certified) in Method 22-like observations. No visible emissions were selected because:

- It does not require qualitative assessment by the observer as to the degree of opacity
- Is clearly indicative of a potential malfunction of the control device

The selected QIP threshold for baghouse visible emissions is five excursions in a six-month reporting period. This level is three percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

I. Background - SO₂

A. Emissions Unit

- i. Description:
Carbon Brick Manufacturing Press 7
- ii. Identification:
Wet Caustic Scrubber BP-2
- iii. Facility:
GT Refractory Solutions International Holdings Inc.

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

- i. Regulation:
Title V Permit Condition E16-2 TAPCR 1200-03-14-.03(5)
- ii. Emission Limits:
S02: 7.3 pounds per hour and 32.0 tons per year
- iii. Monitoring Requirements:
The pH and scrubbing liquid flow rate are monitored and recorded on a daily basis.

C. Control Technology

Wet caustic scrubber

II. Monitoring Approach

A. Indicator 1

- i. Type: pH
- ii. Measurement Approach:
pH of the scrubber second stage will be measured and recorded once daily.

B. Indicator Range 1

- i. Indicator Level:
pH between 9.0 and 13.0
- ii. QIP Threshold :
The QIP threshold is five excursions below the minimum level in a six-month reporting period. A reading above the maximum level is not considered an excursion provided the meter probe is cleaned and recalibrated and the pH is reread for the day.

C. Performance Criteria 1

- i. Data Representativeness:

Measurements are made in the scrubber reactor vessel indicating proper conditions for the desired chemical reaction.

ii. Verification of Operational Status:

A verification of the operational status of the source is made before the parameter is measured and recorded.

iii. QA/QC Practices and Criteria:

The pH meter probe shall be cleaned weekly. The pH meter shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least weekly, whichever is more frequent, and shall be accurate to within +0.5 pH unit.

iv. Monitoring Frequency:

Daily

v. Data Collection Procedure:

pH readings are taken in accordance with the manufacturer's instructions.

D. Indicator 2

i. Type:

Scrubbing liquid flow rate

ii. Measurement Approach:

The flow of the scrubbing liquid will be monitored and recorded once daily.

E. Indicator Range 2

i. Indicator Level:

Minimum scrubbing liquid flow rate of 80 gallons per minute

ii. QIP Threshold:

The QIP threshold is five excursions below the minimum level in a six-month reporting period.

F. Performance Criteria 2

i. Data Representativeness:

Measurements indicate delivery of reactants for the desired chemical reaction.

ii. Verification of Operational Status:

A verification of the operational status of the source is made before the parameter is measured and recorded.

iii. QA/QC Practices and Criteria:

A scrubber liquid flow rate measurement will be recorded daily.

II. **Rationale for Selection of Performance Indicator**

GT Refractory Solutions selected second stage pH and scrubber liquid flow rate as performance indicators for this control device. Second stage pH was selected as an appropriate indicator of proper conditions for the desired chemical reaction. First stage conditions were not selected since the first stage is designed as a waste reduction feature (i.e., it is meant to remove any residual caustic in the scrubber liquid prior to disposal). Scrubber liquid flow rate was selected as an appropriate indicator that adequate reactants were being delivered to the

III. **Rationale for Selection of Indicator Level Second Stage pH**

GT Refractory Solutions selected an indicator range of 9.0 to 13.0 for the

- A pH higher than 13.0 indicates that the instrumentation is out of calibration. The chemicals in use do not exceed this value.
- A pH lower than 9.0 in Stage 2 for an extended period of time will inhibit the Stage 2 chemical reactions as well as inhibit Stage 1 neutralization.

The selected QIP threshold is five excursions below the minimum threshold in a six-month reporting period. A reading above the maximum is not considered excursions provided the meter probe is cleaned and recalibrated and the pH is reread for the day. Five excursions in a six month period is three percent of the total pH readings. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

Scrubber Liquid Flow Rate

GT Refractory Solutions selected an indicator range of greater than 80 gallons per minute since this was the minimum guaranteed flow rate during the initial compliance testing.

The selected QIP threshold is five excursions below the minimum threshold in a six-month reporting period. Five excursions in a six-month period are three percent of the total readings. If the QIP is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

ATTACHMENT 6

Agreement letter for Source 06



January 11, 2023

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

RE: Permit Agreement Letter
GT Refractory Solutions, LLC
22 Carbon Drive
Lawrenceburg, TN 38464
Emission Source Reference No. Source # 50-0003 Permit No 570505

Dear Technical Secretary:

On behalf of GT Refractory Solutions, the following limitations are agreed upon for the above referenced facility: an SO₂ emission limit of 16.1 lb/hr. and 51.6 tons during a 12-consecutive month period. This applies to source Graphitizing Process, 500003-06. Coke and other carbonaceous materials are graphitized in an electric induction furnace. Furnace exhaust emission point E-4; furnace pit area exhaust emission point E-20; material transfer points and product packaging areas bag filter dust collector exhaust stack emission point D-26. This source has a Compliance Assurance Monitoring (CAM) plan.

Production Limit SO₂ emission rate (lbs./hr.) = [average monthly material input rate (lbs. /hr.)] X [percent sulfur content (expressed as a fraction) of material] X [2 lbs. SO₂ / lb of sulfur]

where material input rate = material output rate (lbs. / hr.) X material loss factor (currently 1.0)

Note: The permittee shall document any change in the loss factor that results from process adjustments.

SO₂ emission rate (tons/month) = [monthly production batch weight (lbs.)] X [(ton/ 2000 lbs.)] X [percent sulfur content of material] X [2 lbs. SO₂ / lb of sulfur]

The SO₂ emission rate in tons/ month will be summed to calculate the yearly SO₂ emissions (tons per year).

GT Refractory Solutions shall assure compliance with these limitations by recordkeeping. Compliance with this limitation shall be assured by recordkeeping. A record of the certifications from the supplier of the sulfur content (by weight) for each carbon material shipment or sulfur analysis of a sample of each shipment by the permittee's laboratories must be maintained at the facility. Calculations using the following equations shall be performed monthly and the results recorded in a log (manual or electronic format) to be maintained at the facility.

Should you have any questions or require additional information, please contact Gary Kinshofer via phone at 931-279-9403.

On behalf of GT Refractory Solutions, I agree to the above limitations. I am authorized to represent and bind the facility in environmental affairs

Signature:  Date: January 11, 2023

Name: Gary Kinshofer
Title: President



STATEMENT OF BASIS
Page 1 of 12
TDEC Division of Air Pollution Control

Facility Name: GT Refractory Solutions LLC
Permit Number: 578962
Permit Writer: Tracy Kefauver

Facility ID Number: 50-0003
Date Application Received: March 30, 2021
Date Application Completed: June 21, 2021

FACILITY CATEGORY

This facility is a major source of emissions for Title V applicability and a major stationary source for PSD applicability. The facility-wide potential-to-emit (PTE) of particulate matter (PM), sulfur dioxide (SO₂), Hazardous Air Pollutant (HAP) is at or above the Prevention of Significant Deterioration (PSD) and Title V major source thresholds¹. 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

GT Refractory Solutions LLC is a manufacturer of Carbon Bricks, Carbon Cement and Paste, and Graphite Flour and Products.

PROJECT DESCRIPTION

GT Refractory Solutions LLC 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 12, 2025. The facility was in compliance with the applicable requirements of the permit (no NOV issued), and no violations of permit conditions were observed.
3. The facility is current on Title V fees as of March 10, 2026.

COLLOCATION DETERMINATION

Collocation is not applicable to this facility.

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 <date>.

ADDITIONAL PUBLIC PARTICIPATION

Notification of this draft permit was sent to the following environmental agencies:

1. EPA-Region IV
2. State of Alabama

There were no public/epa comments for this permit.

There were comments on this permit as follows: (include any comments from the public/EPA)

A public hearing was held for this permit on <date>.

A public meeting was held for this permit on <date>.

Table 1A: FACILITY EMISSION SOURCES

¹HAP is above major source thresholds for Title V applicability not considered for PSD



STATEMENT OF BASIS
Page 2 of 12
TDEC Division of Air Pollution Control

Facility Name: GT Refractory Solutions LLC
Permit Number: 578962
Permit Writer: Tracy Kefauver

Facility ID Number: 50-0003
Date Application Received: March 30, 2021
Date Application Completed: June 21, 2021

Source Number	Source Description	Permitted	Exempt or Insignificant	PBR
01	Carbon Brick Manufacturing and Paste Mixing Operation	X		
02	Material Crushing, Sizing, and Bulk Storage	X		
03	Brick Plant Airveyor	X		
04	Brick Plant Vac-U-Max System	X		
06	Graphitizing Process	X		
07	Carbon Cement Blending and Packing	X		
15	Graphite Milling	X		
16	Unmilled Graphite Airveyor	X		
34	ZT Process	X		
35	Brick Plant Pitch Airveyor	X		
47	Graphite Rigid Insulation Process	X		
48	Graphite Machining Process	X		
49	Carbon Brick Manufacturing Press 7	X		
N/A	Quality Assurance Testing Station		X	
N/A	NU-Block Small Gas Oven		X	
N/A	Metal Ceramics Sintering Furnaces (LT3 and LT4)		X	
N/A	Mold Box Curing Oven		X	
N/A	Mold Box Cleaning		X	
N/A	Salvage Saw		X	
N/A	Welding Boot 3		X	
N/A	NU-Block Large Gas Oven		X	
N/A	10,000 gallon tar storage tank		X	
N/A	10,000 gallon hydraulic oil storage tank		X	
N/A	10,000 gallon waste hydraulic oil storage tank		X	
N/A	1,000 gallon gasoline storage tank		X	
N/A	6,600 gallon furfuryl alcohol storage tank		X	
N/A	250 gallon diesel fuel storage tank		X	
N/A	Brine Concentrator		X	
N/A	Wet Cut Machining Operation		X	
N/A	Thermowell Oxidizing Oven		X	
N/A	Cement Soap Heating and Mixing		X	
N/A	10,000 gallon caustic storage tank		X	
N/A	10,000 gallon bleach storage tank		X	
N/A	10,000 gallon wastewater/brine storage tank		X	
N/A	10,000 gallon wastewater/brine storage tank		X	
N/A	Compressor Room Exhaust		X	
N/A	Quality Assurance Testing Station (Pitch)		X	
N/A	Bandsaw-Metal Machining		X	



STATEMENT OF BASIS
Page 3 of 12
TDEC Division of Air Pollution Control

Facility Name: GT Refractory Solutions LLC
Permit Number: 578962
Permit Writer: Tracy Kefauver

Facility ID Number: 50-0003
Date Application Received: March 30, 2021
Date Application Completed: June 21, 2021

Source Number	Source Description	Permitted	Exempt or Insignificant	PBR
N/A	Rotary Grinder-Metal Machining (Tool Shop)		X	
N/A	Milling Machine (2)- Metal (Millwright Shop)		X	
N/A	6" Bench Grinder (Tool Shop)		X	
N/A	Portable Welder (2) (Tool Shop)		X	
N/A	Chromium Weigh Station (Metal Ceramics)		X	
N/A	Ball Mill (Metal Ceramics)		X	
N/A	Sand Blasting Machine (Metal Ceramics)		X	
N/A	Cut-off Saw (Metal Ceramics)		X	
N/A	Belt Sander (Metal Ceramics)		X	
N/A	Lathe (Metal Ceramics)		X	
N/A	Lathe (S Furnace Area-susceptors)		X	
N/A	Lathe (S Furnace Area-graphite)		X	
N/A	Cut-off Saw (S Furnace Area)		X	
N/A	Milling Machine (Machine Shop)		X	
N/A	Radial Arm Drill (Machine Shop)		X	
N/A	Belt Sander (Machine Shop)		X	
N/A	Geared-head Precision Lathe (Machine Shop)		X	
N/A	Lathe (Machine Shop)		X	
N/A	Band Saw (Machine Shop)		X	
N/A	Metal Band Saw (Machine Shop)		X	
N/A	Milling Machine (Machine Shop)		X	
N/A	Pedestal Grinder (Machine Shop)		X	
N/A	Manual Hydraulic Press (Machine Shop)		X	
N/A	Broaching Machine (Machine Shop)		X	
N/A	Lincoln Welder (Machine Shop)		X	

Table 1B: CHANGES SINCE LAST PERMIT ISSUANCE

Description	Date
Administrative Amendment #1 to Title V permit 570505. This Administrative Amendment addressed the ownership change of the facility from "GrafTech Advanced Graphite Materials, LLC" to "GT Lawrenceburg, LLC" Subsidiaries of GT Acquisition Holdings LLC. Some language in Section A through Section D has been revised. Fees Condition E1 has also been revised. VEE requirements for E8-3, E14-6, E15-2 and E16-3 to the reporting requirements in E2(a)(2) has been added.	12/21/2017



STATEMENT OF BASIS
Page 4 of 12
TDEC Division of Air Pollution Control

Facility Name: GT Refractory Solutions LLC
Permit Number: 578962
Permit Writer: Tracy Kefauver

Facility ID Number: 50-0003
Date Application Received: March 30, 2021
Date Application Completed: June 21, 2021

Administrative Amendment #2 to Title V permit 570505. This Administrative Amendment addressed the transfer of ownership of the facility from "GT Lawrenceburg, LLC" to "GT Refractory Solutions LLC". It also updates the new Responsible Official to Gary Kinshofer, Technical Contact to Brent Carter and Billing Contact to Gary Kinshofer in Condition E3-9 for the facility.	3/23/2018

REGULATORY APPLICABILITY REVIEW

Regulations	Comments/ Requirements (Monitoring/Recordkeeping/Reporting/Testing)
<u>Chapter 6</u> TAPCR 1200-03-06-.02(2)	Applicable: This facility has internal combustion engines subject to the PM emission standards of Chapter 6 (ovens in condition 47). Compliance for this limitation shall be assured by use of natural gas only as fuel and calculations based upon the AP-42 emission factor for combustion of natural gas.
<u>Chapter 7</u> TAPCR 1200-03-07-.02(4) TAPCR 1200-03-07-.03(1) TAPCR 1200-03-07-.04(2) TAPCR 1200-03-07-.07(2)	Applicable: This facility has process emission sources. Compliance is assured by the following: control device inspection and maintenance, and process weight rate for existing and new processes.
<u>Chapter 10</u> TAPCR 1200-03-10-.04(2)(b)1 TAPCR 1200-03-10-.02(a)	Applicable: This facility is subject to the monitoring, recordkeeping, and reporting requirements outlined in this chapter.
<u>Chapter 14</u> TAPCR 1200-03-14-.01(3) TAPCR 1200-03-14-.03(1) TAPCR 1200-03-14-.03(5)	Applicable: This facility has sources that emit SO ₂ . Compliance is assured by the following: calculations/recordkeeping
<u>Other state regulations:</u> <u>Chapter(s) 16, 18, 22, 25, 27,</u> <u>etc.</u>	Not Applicable: This facility does not contain sources subject to these chapters.
<u>40 CFR 60</u>	Not Applicable: This facility does not contain sources subject to 40 CFR 60.
<u>40 CFR 61</u>	Not Applicable: This facility does not contain sources subject to 40 CFR 61.



STATEMENT OF BASIS
Page 5 of 12
TDEC Division of Air Pollution Control

Facility Name: GT Refractory Solutions LLC
Permit Number: 578962
Permit Writer: Tracy Kefauver

Facility ID Number: 50-0003
Date Application Received: March 30, 2021
Date Application Completed: June 21, 2021

REGULATORY APPLICABILITY REVIEW

Regulations	Comments/ Requirements (Monitoring/Recordkeeping/Reporting/Testing)																																				
<u>40 CFR 63</u>	Not Applicable: This facility does not contain sources subject to 40 CFR 63.																																				
40 CFR 68	Not Applicable: The facility does not use or store any chemical identified in §68.130.																																				
40 CFR 64	Applicable: Compliance Assurance Monitoring (CAM) is applicable to the Pollutant Specific Emissions Units (PSEUs). These PSEUs: (1) are subject to an emission limitation or standard; (2) use a control device to achieve compliance; and (3) has potential pre-control emissions of one or more pollutants that meet or exceed the applicable major source threshold(s).																																				
	<table><tr><th>Emission Source</th><th>Pollutant(s)</th><th>Control Device(s)</th></tr><tr><td>50-0003-01</td><td>PM</td><td>Baghouse(s)</td></tr><tr><td>50-0003-02</td><td>PM</td><td>Baghouse(s)</td></tr><tr><td>50-0003-03</td><td>PM</td><td>Baghouse(s)</td></tr><tr><td>50-0003-06</td><td>PM</td><td>Baghouse(s)</td></tr><tr><td>50-0003-07</td><td>PM</td><td>Baghouse(s)</td></tr><tr><td>50-0003-15</td><td>PM</td><td>Baghouse(s)</td></tr><tr><td>50-0003-16</td><td>PM</td><td>Baghouse(s)</td></tr><tr><td>50-0003-35</td><td>PM</td><td>Baghouse(s)</td></tr><tr><td>50-0003-48</td><td>PM</td><td>Baghouse(s)</td></tr><tr><td>50-0003-49</td><td>PM</td><td>Baghouse(s)</td></tr><tr><td></td><td></td><td></td></tr></table>	Emission Source	Pollutant(s)	Control Device(s)	50-0003-01	PM	Baghouse(s)	50-0003-02	PM	Baghouse(s)	50-0003-03	PM	Baghouse(s)	50-0003-06	PM	Baghouse(s)	50-0003-07	PM	Baghouse(s)	50-0003-15	PM	Baghouse(s)	50-0003-16	PM	Baghouse(s)	50-0003-35	PM	Baghouse(s)	50-0003-48	PM	Baghouse(s)	50-0003-49	PM	Baghouse(s)			
	Emission Source	Pollutant(s)	Control Device(s)																																		
	50-0003-01	PM	Baghouse(s)																																		
	50-0003-02	PM	Baghouse(s)																																		
	50-0003-03	PM	Baghouse(s)																																		
	50-0003-06	PM	Baghouse(s)																																		
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	50-0003-15	PM	Baghouse(s)																																		
	50-0003-16	PM	Baghouse(s)																																		
	50-0003-35	PM	Baghouse(s)																																		
	50-0003-48	PM	Baghouse(s)																																		
50-0003-49	PM	Baghouse(s)																																			
<u>Special Conditions, Monitoring, Limits</u>	Not Applicable: This facility does not have any special conditions, monitoring, or testing requirements.																																				
<u>Modeling Review</u>	Not Applicable: This facility does not emit Pb, HCl or HF.																																				
<u>Previous Permit Number</u>	Title V Operating Permit 570505 (issued December 19, 2016)																																				

EMISSION SUMMARY

Table 2: SOURCE SPECIFIC EMISSIONS

PERMIT EMISSIONS					
SOURCE 01					
Pollutant	Actual /Controlled Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Permitted Allowable
	lb/hr	gr/dscf/lb/hr/lb/MMBTU	lb/hr	lb/hr	gr/dscf/lb/hr/lb/MMBTU
PM/PM ₁₀ /PM _{2.5}	0.06	8.11 lb/hr	4.49	4.49	8.11 lb/hr
SO ₂	179.46	748 lb/hr	195.65	180.24	179.46 lb/hr



STATEMENT OF BASIS
Page 6 of 12
TDEC Division of Air Pollution Control

Facility Name: GT Refractory Solutions LLC
Permit Number: 578962
Permit Writer: Tracy Kefauver

Facility ID Number: 50-0003
Date Application Received: March 30, 2021
Date Application Completed: June 21, 2021

PERMIT EMISSIONS

SOURCE 01

Pollutant	Actual /Controlled Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Permitted Allowable
	lb/hr	gr/dscf/lb/hr/lb/MMBTU	lb/hr	lb/hr	gr/dscf/lb/hr/lb/MMBTU
CO	8.68	-	8.68	8.68	16.80 lb/hr
VOC	12.03		14.19	14.19	12.03 lb/hr
NO _x	0	-	0	0	6.00 lb/hr
H ₂ S	21.51	-	24.59	241.51	21.51 lb/hr
TRS	41.13	-	47.94	41.13	41.13

PERMIT EMISSIONS

SOURCE 01

Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	0.28	19.68	19.68	35.52
SO ₂	438.00	856.93	856.93	438.00
CO	38.00	38.00	38.00	73.60
VOC	20.60	62.15	62.15	20.60
NO _x	0	0	0	26.37
H ₂ S	36.80	102.30	102.30	36.80
TRS	73.80	210.0	210.0	73.80

PERMIT EMISSIONS

SOURCE 02

Pollutant	Actual /Controlled Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Permitted Allowable
	lb/hr	gr/dscf/lb/hr/lb/MMBTU	lb/hr	lb/hr	gr/dscf/lb/hr/lb/MMBTU
PM/PM ₁₀ /PM _{2.5}	1.90	14.50 lb/hr	190.00	14.50	14.50 lb/hr

PERMIT EMISSIONS

SOURCE 02

Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	8.32	832.20	63.50	-

PERMIT EMISSIONS

SOURCE 03

Pollutant	Actual /Controlled Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Permitted Allowable
	lb/hr	gr/dscf/lb/hr/lb/MMBTU	lb/hr	lb/hr	gr/dscf/lb/hr/lb/MMBTU
PM/PM ₁₀ /PM _{2.5}	10.54	0.25 gr/dscf	450.0	10.54	0.25 gr/dscf



STATEMENT OF BASIS
Page 7 of 12
TDEC Division of Air Pollution Control

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PERMIT EMISSIONS				
SOURCE 03				
Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	46.17	1971	46.17	-

PERMIT EMISSIONS					
SOURCE 04					
Pollutant	Actual /Controlled Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Permitted Allowable
	lb/hr	gr/dscf/lb/hr/lb/MMBTU	lb/hr	lb/hr	gr/dscf/lb/hr/lb/MMBTU
PM/PM ₁₀ /PM _{2.5}	0.7	0.25 gr/dscf	70.00	0.92	0.25 gr/dscf

PERMIT EMISSIONS				
SOURCE 04				
Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	3.07	306.60	4.03	-

PERMIT EMISSIONS					
SOURCE 06					
Pollutant	Actual /Controlled Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Permitted Allowable
	lb/hr	gr/dscf/lb/hr/lb/MMBTU	lb/hr	lb/hr	gr/dscf/lb/hr/lb/MMBTU
PM/PM ₁₀ /PM _{2.5}	0.07	1.92 lb/hr	7.30	1.92	1.92 lb/hr
SO ₂	16.10	233 lb/hr	39.60	16.10	16.1 lb/hr

PERMIT EMISSIONS				
SOURCE 06				
Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	0.32	31.97	8.41	-
SO ₂	51.60	173.45	51.60	51.60

PERMIT EMISSIONS					
SOURCE 07					
Pollutant	Actual /Controlled Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Permitted Allowable
	lb/hr	gr/dscf/lb/hr/lb/MMBTU	lb/hr	lb/hr	gr/dscf/lb/hr/lb/MMBTU
PM/PM ₁₀ /PM _{2.5}	0.12	0.25 gr/dscf	11.85	2.19	0.25 gr/dscf



STATEMENT OF BASIS
Page 8 of 12
TDEC Division of Air Pollution Control

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PERMIT EMISSIONS

SOURCE 07

Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	0.52	51.90	9.57	-

PERMIT EMISSIONS

SOURCE 15

Pollutant	Actual /Controlled Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Permitted Allowable
	lb/hr	gr/dscf/lb/hr/lb/MMBTU	lb/hr	lb/hr	gr/dscf/lb/hr/lb/MMBTU
PM/PM ₁₀ /PM _{2.5}	0.10	2.34lb/hr	10.00	2.34	2.34 lb/hr

PERMIT EMISSIONS

SOURCE 15

Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	0.44	43.80	10.25	-

PERMIT EMISSIONS

SOURCE 16

Pollutant	Actual /Controlled Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Permitted Allowable
	lb/hr	gr/dscf/lb/hr/lb/MMBTU	lb/hr	lb/hr	gr/dscf/lb/hr/lb/MMBTU
PM/PM ₁₀ /PM _{2.5}	0.10	0.25 gr/dscf	10.0	1.29	0.25 gr/dscf

PERMIT EMISSIONS

SOURCE 16

Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	0.44	43.80	5.65	-

PERMIT EMISSIONS

SOURCE 34

Pollutant	Actual /Controlled Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Permitted Allowable
	lb/hr	gr/dscf/lb/hr/lb/MMBTU	lb/hr	lb/hr	gr/dscf/lb/hr/lb/MMBTU
PM/PM ₁₀ /PM _{2.5}	1.70	2.03 lb/hr	1.70	1.70	2.03 lb/hr



STATEMENT OF BASIS
Page 9 of 12
TDEC Division of Air Pollution Control

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PERMIT EMISSIONS				
SOURCE 34				
Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	7.45	7.45	7.45	-

PERMIT EMISSIONS					
SOURCE 35					
Pollutant	Actual /Controlled Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Permitted Allowable
	lb/hr	gr/dscf/lb/hr/lb/MMBTU	lb/hr	lb/hr	gr/dscf/lb/hr/lb/MMBTU
PM/PM ₁₀ /PM _{2.5}	0.2	0.025 gr/dscf	20.0	1.88	0.25 gr/dscf

PERMIT EMISSIONS				
SOURCE 35				
Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	0.88	87.60	8.23	-

PERMIT EMISSIONS					
SOURCE 47					
Pollutant	Actual /Controlled Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Permitted Allowable
	lb/hr	gr/dscf/lb/hr/lb/MMBTU	lb/hr	lb/hr	gr/dscf/lb/hr/lb/MMBTU
PM/PM ₁₀ /PM _{2.5}	0.01	0.60 lb/MMBtu	0.01	0.01	0.60 lb/MMBtu
VOC	0.01	-	0.01	0.01	

PERMIT EMISSIONS				
SOURCE 47				
Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	0.03	0.03	0.03	-
VOC	0.02	0.02	0.02	4.4



STATEMENT OF BASIS
Page 10 of 12
TDEC Division of Air Pollution Control

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Date Application Received: March 30, 2021
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PERMIT EMISSIONS					
SOURCE 48					
Pollutant	Actual /Controlled Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Permitted Allowable
	lb/hr	gr/dscf/lb/hr/lb/MMBTU	lb/hr	lb/hr	gr/dscf/lb/hr/lb/MMBTU
PM/PM ₁₀ /PM _{2.5}	0.05	1.46	4.68	1.46	1.46

PERMIT EMISSIONS				
SOURCE 48				
Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	0.20	20.50	6.39	-

PERMIT EMISSIONS					
SOURCE 49					
Pollutant	Actual /Controlled Emissions	Regulatory Allowable Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Permitted Allowable
	lb/hr	gr/dscf/lb/hr/lb/MMBTU	lb/hr	lb/hr	gr/dscf/lb/hr/lb/MMBTU
PM/PM ₁₀ /PM _{2.5}	1.69	1.67 lb/hr	1.69	1.69	1.67 lb/hr
SO ₂	0.73	98 lb/hr	0.73	0.73	7.3 lb/hr
H ₂ S	0.88	-	0.88	0.88	0.88 lb/hr
TRS	1.75	-	1.75	1.75	1.76 lb/hr

PERMIT EMISSIONS				
SOURCE 49				
Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	7.40	7.40	7.40	-
SO ₂	3.20	3.20	3.20	32.0
H ₂ S	3.85	3.85	3.85	3.85
TRS	7.67	7.67	7.67	7.70

Table 3: FACILITY WIDE EMISSIONS

FACILITY WIDE EMISSIONS			
Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)
	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	68.11	3416.54	189.39
SO ₂	511.72	1033.58	1033.58
NO _x	-	-	-



STATEMENT OF BASIS
Page 11 of 12
TDEC Division of Air Pollution Control

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Date Application Received: March 30, 2021
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FACILITY WIDE EMISSIONS			
Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)
	TPY	TPY	TPY
CO	38.0	38.0	73.60
VOC	42.13	46.51	46.51

Table 4: FACILITY WIDE ALLOWABLE EMISSION LIMITS

Pollutant	TPY
PM/PM ₁₀ /PM _{2.5}	223.33
SO ₂	521.60
NO _x	26.37
CO	73.60
VOC	46.51
TRS	81.50
Total HAPs	222.13

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.

Addendum to Statement of Basis: Changes Made in Title V Renewal 578962	
Permit Condition or Section	Change
D15	Added routine maintenance requirements to Title V permit shell
E1	Updated fee requirements to match current template
E2	Updated reporting requirements
E3-1	Inserted identification of responsible official, technical contact and billing contact. Renumbered conditions in this section as required.
E3-2	Insignificant Activities. Added compliance method
E3-3	Updated recordkeeping requirements
E3-4	Added compliance method
E3-5	Deleted condition. See condition B9 for reasonable measures during startup, shutdown and malfunctions
E3-6	Deleted condition. See condition A20 for accidental release plant pursuant to Section 112(r)
E4-1	Defined input rate limits by process. Renumbered this section.
E5-1	Added input rate limit and compliance method as E5-1. Renumbered this section.
E6-1	Added input rate limit and compliance method. Renumbered this section.
E6-1	Added input rate limit and compliance method. Renumbered this section.
E7-2	Revised condition to be more clear that each stack shall not exceed 0.25 gr/dscf (0.92 lb/hr total)



STATEMENT OF BASIS
Page 12 of 12
TDEC Division of Air Pollution Control

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E8-2	Added input rate limit and compliance method. Renumbered this section.
E8-3(formerly 8-2)	Revised emission limit due to regulatory allowable calculations showed PWR is appropriate allowable. Could not include emission point E4 for PM since that is only SO2 from the electric furnace.
E9-1	Added input rate limit and compliance method. Renumbered this section.
E10-1	Revised condition to be consistent with standard conditions. Renumbered this section
E11-1	Added input rate limit and compliance method. Renumbered this section.
E13-1	Added input rate limit and compliance method. Renumbered this section.
E14-1	Revised condition and compliance method to be consistent with standard conditions.
E14-4	Added construction permit 953208P citation and deleted language in table regarding initial use.
E15-1	Revised condition and compliance method to be consistent with standard conditions. Renumbered this section.