

**OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

**MEMORANDUM**

**June 30, 2025**

**TO:** Phillip Fielder, P.E., Chief Engineer

**THROUGH:** Rick Groshong, Sr. Env. Programs Manager, Compliance & Enforcement

**THROUGH:** Eric L. Milligan, P.E., Engineering Manager, Engineering Section

**THROUGH:** Alex Johnson, E.I., New Source Permit Section

**FROM:** Jian Yue, P.E., New Source Permits Section

**SUBJECT:** Evaluation of Permit Application No. **2020-0512-TV4**  
General Shale Brick, Inc  
GSBI Plant 68 DBA Red River Brick (SIC 3251)  
Facility ID: 171  
NE ¼, NW ¼, Section 21, Township 14N, Range 18EIM  
Latitude: 35.68158°, Longitude: -95.40807°  
3101 W. 53rd St. S., Muskogee, Muskogee County, Oklahoma

**SECTION I. INTRODUCTION**

General Shale Brick Inc (GSBI) has requested renewal of their current Part 70 operating permit for the GSBI Plant 68 DBA Red River Brick. This facility is currently operating under Permit No. 2015-1966-TV3 (M-3), issued on May 3, 2019. This facility is a major source for PSD and a minor source of HAPs.

**SECTION II. REQUESTED CHANGES**

The following need for changes were identified and made based on review of the current permit:

- Corrections were made to the estimated emissions for EU-01, Clay Storage, to list emissions from two stockpiles and three drop points and to change throughputs from 281,402 TPY to 245,280 TPY. This change adds 5.98 TPY to PM emissions.
- PM emissions for the tunnel dryer were added to the permit based on the current AP-42 emission factor. This change adds 19.4 TPY PM and 17.48 TPY PM<sub>10</sub>/PM<sub>2.5</sub>. These emissions have always existed and a review of previous construction permits indicates that these emission increases would not qualify as a relaxation of an emission limit under PSD. Since the facility was not a PSD source when those construction permits (Permits No. 80-033-C (M-1) and 80-033-C (M-2)) were issued, the PM emission increases would not have triggered PSD review back when those construction permits were evaluated.
- Applicable requirements for the gasoline dispensing facility (i.e., the tank and dispensing operations) were added to the permit.
- A CAM plan was added for the kiln.

- EUG-03, Emergency Generator, is no longer operational. GSBI requested to remove it from the permit.
- NO<sub>x</sub>, CO, VOC, and PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions from the kiln are recalculated based on the limited brick production of 23.7 TPH (They were based on the old production of 28 TPH in previous permits) and adjusted emission factors based on more recent stack tests and safety factors as detailed in SECTION IV. This change increases CO emissions from 147.32 TPY to 168.32 TPY and does not increase emissions for other pollutants. A review of previous construction permits indicates that the CO emission increase would not qualify as a relaxation to emission limits under PSD, since CO emission was already permitted at 171.87 TPY in the last construction permit (Permit No. 80-033-C (M-2)) and the facility was not a PSD source back then, therefore this emission increase would not trigger PSD review back when the construction permit was evaluated.

**SECTION III. PERMIT HISTORY**

The following table lists all permitting actions from the issuance of the last Title V renewal permit.

Permits	Date Issued	Description
2015-1966-TVR3	6/6/2016	Requested the renewal of the Part 70 permit.
2015-1966-TVR3 (M-1)	1/17/2018	Requested an administrative amendment to change company name from Boral Bricks Inc. to Meridian Brick, LLC
2015-1966-TVR3 (M-2)	12/19/2018	Minor modification to authorize the reactivation of the existing dry injection fabric filter (DIFF), which controls hydrochloric acid (HCl) and hydrogen fluoride (HF) emissions from the existing tunnel kiln.
2015-1966-TVR3 (M-3)	10/26/2023	Requested an administrative amendment to remove the Method 5 testing requirements for particulate matter (PM) in Specific Conditions No. 1.b and 12.a of Permit No. 2015-1966-TVR3 (M-2).

**SECTION IV. EMISSION GROUPS, EQUIPMENT, AND PROCESS DESCRIPTION**

This facility produces clay-facing bricks for use in the construction of buildings and other structures. A portion of the clay and shale used as primary raw materials are mined on the plant site property, while other raw materials are mined locally.

**EUG-01: Raw Material Storage, Handling, and Processing**

This emission group consists of two emission units: EU-01, Clay Storage and EU-02, Clay Preparation.

**EU-01, Clay Storage, Constructed 9/29/82**

Prior to entering the clay preparation process, raw materials are unloaded from dump trucks and stockpiled in two areas: main stock pile and dry storage stockpile. All raw materials are

transported from the two stockpiles via front-end loaders to a tipple hopper which feeds a conveyor to the Clay Preparation Building. Emissions are expected from the stockpiles and the three drop points: front-end loader (FEL1) from the main stockpile to tipple hopper, front-end loader (FEL2) from the dry storage stockpile to tipple hopper, and tipple to the covered conveyor (DROP1).

#### EU-02, Clay Preparation Building, Constructed 9/29/82

Raw clay is then delivered to the Clay Preparation Building where it is processed first by a primary crusher, then separated by a scalping screen. Oversized materials are further processed by a grinder. All materials are then sized by a screen bank. Material not passing through the screens returns to the grinder, while material passing through the screens is conveyed to one of two storage bins. Sized material is collected from these two storage bins using a reclaimer, which consists of a series of rotating rakes which push material onto a conveyor. Since all clay preparation processes are performed in the Clay Preparation building, any emissions from the process only escape through open doors or vents.

#### **EUG-02: Drying and Firing Process**

A conveyor transfers fine clay from the Clay Preparation Building to the Manufacturing Building which has no baghouses or any other control devices. Clay is mixed with water in a pug mill and then extruded under pressure to form a column. The column is subsequently cut into individual bricks, which are stacked on kiln cars. Initial drying of the brick occurs in the holding room, which is heated with a small portion of waste heat from cooling the brick in the back end of the kiln diluted to a large extent with ambient air. There are no known emissions from drying the brick in the holding room. The dryer and the kiln also do not have particulate control devices.

#### EU-03, Tunnel Dryer, Constructed 9/29/82

The loaded brick cars then pass through a tunnel dryer, which utilizes waste heat from the cooling section of the kiln to remove the moisture from the bricks. The temperatures in the tunnel dryer typically range between 350°F and 500°F. Under this range of temperature, a portion of the organic compounds naturally occurring in clay volatilize in the tunnel dryer.

#### EU-04, Tunnel Kiln, 48.96 MMBTUH, Constructed 9/29/82

The dried cars of bricks are then pushed through a natural gas-fired tunnel kiln in which they are heated to approximately 1,950°F to form a ceramic bond internally in the bricks. Emissions are routed through the DIFF and emitted from the DIFF stack. On and after December 26, 2018, DIFF control efficiencies of 52% are applied to HCl emissions and 92% are applied to HF emissions. The applicant will conduct periodic stack test of emissions to demonstrate compliance with permit limits.

**SECTION IV. EMISSIONS**

The parameters of the stacks are tabulated below:

Operations	Diameter (Inches)	Height (Feet)	Flow Rate (ACFM)	Temperature (°F)
EU-03, Tunnel Dryer	36.0	28	12,700	180
EU-04, Tunnel Kiln Exhausts Through DIFF Stack	74.5	70	65,921	372

The clay storage and preparation areas operate 10 hours per day, 5 days per week, and 52 weeks per year. The tunnel dryer and kiln areas operate 24 hours per day, every day of the year. The following table lists the production for each unit.

Process	Production/Throughput (TPH)	Production/Throughput (TPY)
EU-01, Clay Storage	28.00	245,280
EU-02, Clay Preparation	28.00	245,280
EU-03, Tunnel Dryer	23.7	207,612
EU-04, Tunnel Kiln	23.70	207,612*

\*The facility originally had a brick production rate of 245,534 TPY for the kiln. After a two-year experiment with quarterly stack testing, GSBI determined to limit the kiln’s brick production rate to 207,612 TPY to accommodate the variability in clay’s sulfur content and to ensure compliance with the SO<sub>2</sub> emission limit of 331 TPY. Emission limits for other pollutants were calculated based on the original production rate and were kept unchanged. The reduced brick production limit will ensure the compliance of these limits as well.

The following table lists emission factors and emissions for EU-01.

**Emission Factors for EU-01 Drop Points**

EU-01	Pollutants	Wind Speed	Moisture Content	Particle Size Multiplier	Emission Factor <sup>1</sup>	Control Efficiency
		mph	%	K Value	lb/ton	%
FEL1	PM	10 <sup>2</sup>	8 <sup>3</sup>	0.74	0.0008	0
	PM <sub>10</sub>			0.35	0.0004	0
	PM <sub>2.5</sub>			0.053	0.0001	0
FEL2	PM			0.74	0.0008	0
	PM <sub>10</sub>			0.35	0.0004	0
	PM <sub>2.5</sub>			0.053	0.0001	0
DROP1	PM			0.74	0.0008	50 <sup>4</sup>
	PM <sub>10</sub>			0.35	0.0004	50 <sup>4</sup>
	PM <sub>2.5</sub>			0.053	0.0001	50 <sup>4</sup>

<sup>1</sup>Emission factor is calculated in accordance with AP-42 Chapter 13.2.4 for Aggregate Handling and Storage Piles.

$$E = k(0.0032) * ((U/5)^{1.3}) / ((M/2)^{1.4})$$

where: E = Emission Factor

k = particle size multiplier

U = mean wind speed (miles per hour)

M = material moisture content

<sup>2</sup>Based on 2024 AEI values.

<sup>3</sup>Based on process knowledge.

<sup>4</sup>Control applied for reduced fall distance based on TCEQ Rock Crushing guidance document dated February 2002.

**Emissions From EU-01 Drop Points**

Drop Points	PM Emissions		PM <sub>10</sub> Emissions		PM <sub>2.5</sub> Emissions	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
FEL1	0.02	0.10	0.01	0.05	<0.01	0.01
FEL2	0.02	0.10	0.01	0.05	<0.01	0.01
DROPI	0.01	0.05	0.01	0.02	<0.01	0.00
Totals	0.05	0.25	0.03	0.12	<0.01	0.02

**Emission Factors For EU-01 Stock Piles**

EU-01	Stockpile Area <sup>3</sup>	Control Efficiency <sup>4</sup>	PM <sup>1</sup>	PM <sub>10</sub> <sup>1</sup>	PM <sub>2.5</sub> <sup>2</sup>
	Acres	%	lb/Acre-Day	lb/Acre-Day	lb/Acre-Day
Main Stock Pile-Inactive	11.25	50	3.5	1.75	0.2625
Main Stock Pile-Active	3.75	50	13.2	6.6	0.99
Dry Storage-Inactive	0.375	50	3.5	1.75	0.2625
Dry Storage-Active	0.125	50	13.2	6.6	0.99

1. The emissions are evaluated using a combination of AP-42 Section 13.2.4 and TCEQ Technical Guidance for Rock Crushing Plants (RG-058) emission and control factors. PM<sub>10</sub> emission factors are assumed to be 50% of PM emission factors per RG-058.
2. Emission of PM<sub>2.5</sub> from the storage piles was estimated based on “k” values from AP-42 Chapter 13.2.4, which indicate a PM<sub>10</sub> factor of 0.35 and a PM<sub>2.5</sub> factor of 0.053. It is assumed that the final distribution of particle sizes will follow the ratio of “k” values, thus the ratio of PM<sub>2.5</sub> to PM<sub>10</sub> will be 0.053/0.35, or 15%.
3. The facility has 15 acres for the main stockpile and 0.5 acres for dry storage. Only 25% of each stockpile area is active at any given time.
4. General Shale maintains a moisture content of 8% in the stockpiles. Additionally, the stockpiles are impacted and capped to help reduce wind erosion and water shed.

**Emissions From EU-01 Stock Piles**

Stock Piles	PM Emissions		PM <sub>10</sub> Emissions		PM <sub>2.5</sub> Emissions	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Main Stock Pile-Inactive	0.82	3.59	0.41	1.80	0.06	0.27
Main Stock Pile-Active	1.03	4.52	0.52	2.26	0.08	0.34
Dry Storage-Inactive	0.03	0.12	0.01	0.06	0.00	0.01
Dry Storage-Active	0.03	0.15	0.02	0.08	0.00	0.01
Totals	1.91	8.38	0.96	4.2	0.14	0.63

The following table lists emission factors for EU-02 through EU-04.

	NO <sub>x</sub> (lb/ton)	CO (lb/ton)	VOC (lb/ton)	PM (lb/ton)	PM <sub>10</sub> /PM <sub>2.5</sub> (lb/ton)	SO <sub>2</sub> (lb/ton)
EU-02	-	-	-	0.025 <sup>a</sup>	0.0023 <sup>a</sup>	
EU-03	-	-	0.03 <sup>b</sup>	0.187 <sup>c, b</sup>	0.1683 <sup>b</sup>	
EU-04	0.5405 <sup>d</sup>	1.6215 <sup>g</sup>	0.0276 <sup>b</sup>	1.104 <sup>b</sup>	1.0005 <sup>b</sup>	3.188 <sup>f</sup>

<sup>a</sup> AP-42 (8/97) Table 11.3-2: Grinding and screening operations, processing wet material (≥13% Moisture); Natural gas-fired kiln.

<sup>b</sup> AP-42 (8/97) Table 11.3-1 & 5: Brick dryer. PM<sub>10</sub> and PM<sub>2.5</sub> emissions are assumed to be 90% of the PM for the Brick dryer. A 15% safety factor is also applied.

<sup>c</sup> AP-42 (8/97) Table 11.3-3: Natural gas fired kiln.

<sup>d</sup> Based on stack test conducted in 2009 and a 15% safety factor.

<sup>f</sup> Based on stack tests conducted every quarter for two years in 2011 and 2012.

<sup>g</sup> Based on stack test conducted in 2025 and 15% safety factor.

**Calculated Facility Wide Emissions**

Source	NOx		CO		VOC		SO <sub>2</sub>		PM		PM <sub>10</sub> /PM <sub>2.5</sub>	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
EU-01 <sup>a</sup>	-	-	-	-	-	-	-	-	1.96	8.63	0.99	4.32
EU-02	-	-	-	-	-	-	-	-	2.72	3.52	0.25	0.32
EU-03	-	-	-	-	0.71	3.11	-	-	4.43	19.40	3.99	17.48
EU-04	12.81	56.11	38.43	168.32	0.66	2.87	75.57	331.0	26.16	114.60	23.71	103.86
Totals	12.81	56.11	38.43	168.32	1.37	5.98	75.57	331.0	35.27	146.15	28.94	125.98
<b>Past Totals</b>	<b>16.97</b>	<b>57.49</b>	<b>40.31</b>	<b>148.99</b>	<b>2.53</b>	<b>10.71</b>	<b>75.57</b>	<b>331.0</b>	<b>31.68</b>	<b>124.03</b>	<b>24.67</b>	<b>107.13</b>
<b>Changes</b>	<b>-4.16</b>	<b>-1.38</b>	<b>-1.88</b>	<b>19.33</b>	<b>-1.16</b>	<b>-4.73</b>	<b>0</b>	<b>0</b>	<b>3.59</b>	<b>22.12</b>	<b>4.27</b>	<b>18.85</b>

<sup>a</sup> The total of the three drop points and two stock piles

The following table lists HAP emission factors from the kiln based on AP-42 (8/97) Tables 11.3-4 and 11.3-6, except for HF, which is based on stack test (conducted in 2007) results. Emissions were calculated based on maximum kiln production rate of 28 tons/hour estimated by the applicant.

	<b>HF (lb/ton)</b>	<b>HCl (lb/ton)</b>	<b>Benzene (lb/ton)</b>
EU-04	1.0	0.17	0.0029

<b>HAPs</b>	<b>Controlled Emissions<sup>(1)</sup></b>	
	<b>lb/hr</b>	<b>TPY</b>
Benzene	0.08	0.35
Hydrochloric Acid	2.28	9.99
Hydrogen Fluoride	2.28	9.99

<sup>1</sup> Hydrogen fluoride emissions were based on 90% control efficiency of the DIFF, hydrochloric acid emissions are based on 43% control efficiency of the DIFF, and no control efficiency is applied to benzene. The stack test conducted in 2007 tested HF and HCL emissions from both the inlet and outlet of the DIFF and resulted in 99.97% control for HF and 87.43% control for HCL. GSBI applied lower control efficiency of 91.86% for HF and 52.08% for HCL back calculated from 9.99 TPY.

**SECTION V. INSIGNIFICANT ACTIVITIES**

The insignificant activities identified and justified on Part 1b of the forms in the application and duplicated below were confirmed by the initial operating permit inspection. Records were available to confirm the insignificance of the activities. Appropriate record keeping of activities indicated below with “\*”, is specified in the Specific Conditions.

- (1) Space heaters, boilers and emergency flares less than or equal to 5 MMBTUH heat input (commercial natural gas). There are three natural gas and two diesel space heaters for employees and hydraulic equipment in cold weather.
- (2)\* Emissions from fuel storage/dispensing equipment operated solely for facility owned vehicles if fuel throughput is not more than 2,175 gallons/day, averaged over a 30-day period. There is one 1,650-gallon diesel tank used for four pieces of heavy equipment

used in the mine site and four forklifts in the brickyard. There is also one 800-gallon gasoline tank on-site used for one company pick up truck and two welders. The gasoline tank is subject to NESHAP Subpart CCCCCC and is no longer insignificant.

- (3) Cold degreasing operations utilizing solvents that are denser than air. There is one 25-gallon solvent tub used for washing parts in maintenance.
- (4) Sanitary sewage collection and treatment facilities other than incinerators and Publicly Owned Treatment Works (POTW). Stacks or vents for sanitary sewer plumbing traps are also included (i.e., lift station). There is one lift station and a sewage lagoon for fifty two employees.
- (5) Hand wiping and spraying of solvents from containers with less than 1 liter capacity used for spot cleaning and/or degreasing in ozone attainment areas. Occasionally may have spray can of computer contact cleaner.
- (6) \*Activities having the potential to emit no more than 5 TPY (actual) of any criteria pollutant. EU-01 and EU-02 each has PM emissions less than 5 TPY. The throughput of EU-01 and EU-02 is limited by kiln brick production. Since the kiln brick production is set as a permit limit in the Specific Conditions, no additional recordkeeping will be required for these two emission units.

## SECTION VI. OKLAHOMA AIR POLLUTION CONTROL RULES

OAC 252:100-1 (General Provisions) [Applicable]  
Subchapter 1 includes definitions but there are no regulatory requirements.

OAC 252:100-2 (Incorporation by Reference) [Applicable]  
This subchapter incorporates by reference applicable provisions of Title 40 of the Code of Federal Regulations. These requirements are addressed in the “Federal Regulations” section.

OAC 252:100-3 (Air Quality Standards and Increments) [Applicable]  
Primary Standards are in Appendix E and Secondary Standards are in Appendix F of the Air Pollution Control Rules. At this time, all of Oklahoma is in attainment of these standards.

OAC 252:100-5 (Registration, Emission Inventory, and Annual Operating Fees) [Applicable]  
The owner or operator of any facility that is a source of air emissions shall submit a complete emission inventory annually on forms obtained from the Air Quality Division. An emission inventory was submitted and fees paid for previous years as required.

OAC 252:100-8 (Permits for Part 70 Sources) [Applicable]  
Part 5 includes the general administrative requirements for part 70 permits. Any planned changes in the operation of the facility which result in emissions not authorized in the permit and which exceed the “Insignificant Activities” or “Trivial Activities” thresholds require prior notification to AQD and may require a permit modification. Insignificant activities mean individual emission units that either are on the list in Appendix I (OAC 252:100) or whose actual calendar year emissions do not exceed the following limits:

- 5 TPY of any one criteria pollutant

- 2 TPY of any one hazardous air pollutant (HAP) or 5 TPY of multiple HAPs or 20% of any threshold less than 10 TPY for a HAP that the EPA may establish by rule

Emissions limitations have been incorporated from the previously issued permits and updated to reflect current operations.

OAC 252:100-9 (Excess Emission Reporting Requirements) [Applicable]

Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event. No later than thirty (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for mitigation, as described in OAC 252:100-9-8, shall be included in the excess emission event report. Additional reporting may be required in the case of ongoing emission events and in the case of excess emissions reporting required by 40 CFR Parts 60, 61, or 63.

OAC 252:100-13 (Open Burning) [Applicable]

Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

OAC 252:100-19 (Particulate Matter) [Applicable]

This subchapter specifies a particulate matter (PM) emission limitation of 0.6 lb/MMBTU from fuel-burning equipment with a rated heat input of 10 MMBTUH or less and a lowest limitation of 0.1 lb/MMBTU for fuel-burning equipment with a rated heat input of 10,000 MMBTUH or greater. AP-42 (7/98), Table 1.4-1 lists natural gas PM emissions to be 7.6 lb/million scf or about 0.0076 lb/MMBTU, so the natural gas fired kilns are in compliance.

This subchapter also specifies PM emissions limitations based on process weight rate. The following table lists process rates, emissions, and allowable emissions.

EUG #	Emission Units	Process Description	Process Rate (TPH)	Estimated PM (lb/hr)	PM Allowable (lb/hr)*
1	EU-01	Clay Storage	28.00	1.96	38.23
	EU-02	Clay Preparation	28.00	2.72	38.23
2	EU-03	Dryer	23.7	4.43	34.19
	EU-04	Kiln	23.70	26.16	34.19

\*Based on equations in OAC 252:100 Appendix G

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]

No discharge of greater than 20% opacity is allowed except for short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period

exceed 60% opacity. When burning natural gas, the fuel-burning equipment has very little possibility of exceeding opacity standards, therefore no periodic observation is necessary.

OAC 252:100-29 (Fugitive Dust)

[Applicable]

Subchapter 29 prohibits the handling, transportation, or disposition of any substance likely to become airborne or windborne without taking “reasonable precautions” to minimize emissions of fugitive dust. No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or to interfere with the maintenance of air quality standards. Processing of wet materials utilizes reasonable precaution to control fugitive dust emissions and achieves compliance with the requirement of “reasonable precautions” of Subchapter 29. A specific condition in the permit is appropriate to minimize particulate emissions from all activities. These precautions shall include but not be limited to:

- a. Use of water or chemicals on roads, stockpiles, and materials during transfer operations.
- b. Application of other coatings or coverings to substances susceptible to becoming air-borne or wind-borne.
- c. Covering or wetting material in trucks.
- d. Planting and maintaining vegetation coverings or windbreaks.
- e. Locate stockpiles as to provide minimum exposure to high winds and avoid open spaces in line with neighboring homes and businesses.

OAC 252:100-31 (Sulfur Compounds)

[Applicable]

Part 5 limits sulfur dioxide emissions from new equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBTU heat input, three-hour average. AP-42 (3/98) Table 1.4-2 lists SO<sub>2</sub> emissions as 0.6 lb/MMSCF or about 0.0006 lb/MMBTU, which is in compliance with the 0.2 lb/MMBTU limitation. The permit will require the kilns to be fired with pipeline natural gas.

OAC 252:100-33 (Nitrogen Oxides)

[Not Applicable]

Subchapter 33 affects fuel-burning equipment with a rated heat input of 50 MMBTUH or more. All fuel-burning equipment is rated below this threshold. The tunnel kiln’s heat capacity is 48.96 MMBTUH.

OAC 252:100-35 (Carbon Monoxide)

[Not Applicable]

None of the following affected processes are part of this project: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic reforming unit, or petroleum catalytic cracking unit.

OAC 252:100-42 (Toxic Air Contaminants (TAC))

[Applicable]

This subchapter regulates toxic air contaminants (TAC) that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained unless a modification is approved by the Director. Since no Area of Concern (AOC) has been designated anywhere in the state, there are no specific requirements for this facility at this time.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping) [Applicable]

This subchapter provides general requirements for testing, monitoring and recordkeeping and applies to any testing, monitoring or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain and operate monitoring equipment or to conduct tests, including stack tests, of the air contaminant source. All required testing must be conducted by methods approved by the Air Quality Director and under the direction of qualified personnel. A notice-of-intent to test and a testing protocol shall be submitted to Air Quality at least 30 days prior to any EPA Reference Method stack tests. Emissions and other data required to demonstrate compliance with any federal or state emission limit or standard, or any requirement set forth in a valid permit shall be recorded, maintained, and submitted as required by this subchapter, an applicable rule, or permit requirement. Data from any required testing or monitoring not conducted in accordance with the provisions of this subchapter shall be considered invalid. Nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

The facility has SO<sub>2</sub> emissions greater than greater than 250 TPY and CO and PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions greater than 100 TPY. Testing requirements have been established in Specific Condition No. 13.

**The following Oklahoma Air Pollutant Control Rules are not applicable to this project:**

OAC 252:100-11	Alternative Emissions Reduction	not requested
OAC 252:100-17	Incinerators	not type of emission unit
OAC 252:100-23	Cotton Gins	not type of emission unit
OAC 252:100-24	Grain Elevators	not in source category
OAC 252:100-39	Nonattainment Areas	not in a subject area
OAC 252:100-47	Landfills	not in source category

**SECTION VII. FEDERAL REGULATIONS**

PSD, 40 CFR Part 52 [Not Applicable at This Time]

Total potential emissions for SO<sub>2</sub> are greater than the threshold level of significance of 250 TPY and any future increases of emissions must be evaluated for PSD if they exceed a significance level (40 TPY NO<sub>x</sub>, 100 TPY CO, 40 TPY VOC, 40 TPY SO<sub>2</sub>, 25 TPY PM<sub>10</sub>).

NSPS, 40 CFR Part 60 [Not Applicable]

Subpart OOO applies to the following facilities in non-metallic minerals processing plants that commenced construction, reconstruction, or modification after August 31, 1983: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station. All of the equipment, which comprises the crusher, was manufactured before August 31, 1983, the effective date of NSPS Subpart OOO and have not been modified or reconstructed.

Subpart UUU affects each calciner and dryer at a mineral processing plant that commences construction, modification, or reconstruction after April 23, 1986. For the brick and related clay

products industry, only the calcining and drying of raw materials prior to firing of the brick are covered. Therefore, the tunnel kilns and tunnel dryers are not subject. This facility does not dry the raw materials prior to firing of the brick.

NESHAP, 40 CFR Part 61

[Not Applicable]

There are no emissions of any of the regulated pollutants: arsenic, asbestos, beryllium, benzene, coke oven emissions, mercury, radionuclides, or vinyl chloride except for trace amounts of benzene. Subpart J (Equipment Leaks of Benzene) concerns only process streams which contain more than 10% benzene by weight. Analysis of Oklahoma natural gas indicates a maximum benzene content of less than 1%.

NESHAP, 40 CFR Part 63

[SubpartCCCCC Applicable]

Subpart DDDDD, Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters. The compliance dates for the rule are January 31, 2016, for existing sources and, January 31, 2013, or upon startup, whichever is later, for new sources. There are no boilers or process heaters at this facility. After December 26, 2018, this facility is an area source of HAP.

Subpart JJJJJ, Brick and Structural Clay Products Manufacturing. This subpart became effective in December 2014 and affects brick and structural clay products manufacturing facilities that are located at, or are part of, a major source of HAP emissions. After December 26, 2018, this facility is an area source for HAPs, and is not subject to this subpart.

Subpart CCCCC, Gasoline Dispensing Facilities. This subpart establishes emission limitations and management practices for HAP emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF) located at an area source. GDF means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.

If your GDF has a monthly throughput of less than 10,000 gallons of gasoline, you must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

- 1) Minimize gasoline spills;
- 2) Clean up spills as expeditiously as practicable;
- 3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
- 4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

If your GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements above and you must only load gasoline into storage tanks at your facility by utilizing submerged filling.

The 800-gallon gasoline tank located on-site and the associated dispensing operations which are used for one company pick up truck and two welders are subject to this subpart.

CAM, 40 CFR Part 64

[Applicable]

Compliance Assurance Monitoring (CAM), applies to any pollutant specific emission unit at a major source that is required to obtain a Title V permit, if it meets all of the following criteria:

- It is subject to an emission limit or standard for an applicable regulated air pollutant
- It uses a control device to achieve compliance with the applicable emission limit or standard
- It has potential emissions, prior to the control device, of the applicable regulated air pollutant greater than the major source thresholds

Emissions of SO<sub>2</sub>, HF, and HCl from the tunnel kiln are controlled by a dry injection fabric filter (DIFF). Potential uncontrolled SO<sub>2</sub> emission exceed 100 TPY and potential uncontrolled HF emissions exceed 10 TPY. Therefore, the tunnel kiln (EU-04) is subject to this subpart for these two pollutants. GSBI submitted a CAM plan that is outlined below.

**The CAM Plan**

I. Background

A. Emission Unit Description: The tunnel kiln  
 AQD ID: EU-04 of EUG-02  
 Facility: GSBI Plant 68 DBA Red River Brick, Muskogee County, Oklahoma

B. Applicable Requirement, Emission Limits, and Monitoring Requirements

- i. Requirement:  
 AQD Permit No. 2020-0512-TVR4
- ii. Emission Limits  
 lb/hr emission limits for SO<sub>2</sub> and HF

ID#	Source	SO <sub>2</sub>	HF
		lb/hr	lb/hr
EU-04	Tunnel Kiln	75.57	2.28

- iii. Monitoring requirements  
 Pressure drop and lime feed rate

C. Control technology

- i. DIFF

II. Monitoring Approach

A. The key elements of the monitoring approach are presented in the CAM PLAN table on the following page.

III. Response to Excursion

A. Inspections resulting in findings outside of the indicator range will trigger corrective action, and reporting. Operation will return to normal upon completed corrective action.

**Monitoring Requirements for the Tunnel Kiln**

	<b>Indicator No. 1</b>	<b>Indicator No. 2</b>
<b>I. Indicator</b>	<b>Pressure drop across DIFF</b>	<b>Lime feed rate</b>
<b>Measurement Approach</b>	Pressure drop across DIFF is monitored by a differential pressure transmitter that displays the value on a monitor in the kiln control room. The value is instantaneous and manually recorded once per day in the logbook in the control room.	The indicator used to monitor lime feed rate is the motor hertz setting of the variable speed drive (VFD) used to control the speed at which the lime feeder motor rotates. The motor hertz setting is displayed on the readout of the VFD and as a percentage of 60 Hz on a monitor in the kiln control room. The value is instantaneous and manually recorded once per day in the logbook in the kiln control room.
<b>II. Indicator Range</b>	2-6 in. H <sub>2</sub> O Excursions are defined as any one day where a value is not recorded in the logbook or any recorded value that is outside of the range of 2.0 to 6.0 inches of water column. Excursions trigger corrective action, logging and reporting in semiannual report.	20-60 Hz Excursions are defined as any one day where a value is not recorded in the logbook or any recorded value that is outside of the range 20-60 HZ or outside the range established during the most recent compliance test. Excursions trigger corrective action, logging and reporting in semiannual report.
<b>III. Performance Criteria</b>		
<b>A. Data Representativeness</b>	Pressure drops across the fabric filters are measured at the filter inlet and exhaust. The minimum accuracy of the device is ±0.1 inch of water column.	The monitoring system consists of a voltmeter that is part of the WESP instrumentation. The minimum accuracy of the voltmeter is ±0.2 %.
<b>B. QA/QC – Practices and Criteria</b>	Calibrated in accordance with manufacturer recommendations. There is a local magnehelic gauge. Values from this gauge are compared with the value in the control room monthly to ensure accurate calibration.	Calibrated in accordance with manufacturer recommendations. Not less than once per week, the lime feed is measured and compared to the VFD setting. Calibration and adjustments are made as needed to maintain the required lime feed rate.
<b>C. Monitoring Frequency</b>	Continuously	Continuously
<b>D. Data Collection Procedures</b>	Records are maintained to document daily readings and any required maintenance.	Records are maintained to document daily readings and any required maintenance.
<b>E. Averaging period</b>	None, not to exceed minimum and maximum	None, not to exceed minimum and maximum

**Monitoring Approach Justification**

I. Background

The tunnel kiln uses the DIFF to control SO<sub>2</sub>, HF, and HCL emissions. The monitoring approach outlined here applies to the pressure drop across the DIFF and the lime feed rate.

II. Rationale for Selection of Performance Indicators

A. Pressure Drop

The pressure drop across the DIFF was selected because it is indicative of the proper operation of the DIFF. It ensures that the reverse air pulse jet cleaning system is functioning properly and the bag integrity has not compromised.

B. Lime Feed Rate

The lime feed rate was selected because it indicates if lime is adequate to provide untreated hydrated lime with which the SO<sub>2</sub> and HF to react.

III. Rationale for Selection of Indicator Ranges

A. Pressure drop

The selected indicator range of 2-6 in of water is based on manufacturer's recommendation.

B. Lime feed rate

The selected indicator range of 20-60 Hz was established during the April 4, 2023, compliance test.

Stratospheric Ozone Protection, 40 CFR Part 82 [Subpart A and F Applicable]  
These standards require phase out of Class I & II substances, reductions of emissions of Class I & II substances to the lowest achievable level in all use sectors, and banning use of nonessential products containing ozone-depleting substances (Subparts A & C); control servicing of motor vehicle air conditioners (Subpart B); require Federal agencies to adopt procurement regulations which meet phase out requirements and which maximize the substitution of safe alternatives to Class I and Class II substances (Subpart D); require warning labels on products made with or containing Class I or II substances (Subpart E); maximize the use of recycling and recovery upon disposal (Subpart F); require producers to identify substitutes for ozone-depleting compounds under the Significant New Alternatives Program (Subpart G); and reduce the emissions of halons (Subpart H).

Subpart A identifies ozone-depleting substances and divides them into two classes. Class I controlled substances are divided into seven groups; the chemicals typically used by the manufacturing industry include carbon tetrachloride (Class I, Group IV) and methyl chloroform (Class I, Group V). A complete phase-out of production of Class I substances is required by January 1, 2000 (January 1, 2002, for methyl chloroform). Class II chemicals, which are hydrochlorofluorocarbons (HCFCs), are generally seen as interim substitutes for Class I CFCs.

Class II substances consist of 33 HCFCs. A complete phase-out of Class II substances, scheduled in phases starting by 2002, is required by January 1, 2030.

This facility does not utilize any Class I & II substances.

Subpart F requires that any persons servicing, maintaining, or repairing appliances except for motor vehicle air conditioners; persons disposing of appliances, including motor vehicle air conditioners; refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment comply with the standards for recycling and emissions reduction.

The Standard Conditions of the permit address the requirements specified at §82.156 for persons opening appliances for maintenance, service, repair, or disposal; §82.158 for equipment used during the maintenance, service, repair, or disposal of appliances; §82.161 for certification by an approved technician certification program of persons performing maintenance, service, repair, or disposal of appliances; §82.166 for recordkeeping; § 82.158 for leak repair requirements; and §82.166 for refrigerant purchase records for appliances normally containing 50 or more pounds of refrigerant.

**SECTION VIII. COMPLIANCE**

The Specific Conditions of this permit contain various testing, monitoring, recordkeeping, and reporting requirements in order to document on-going compliance with emission limits. The specific method used to document compliance was based on the type of emission unit, the type of process equipment, the specific pollutants emitted, and the amount of permitted emissions taking into account other regulatory requirements that an emission unit may be subject to.

In addition to the permitting requirements, the following periodic inspections were conducted since issuance of the last Title V renewal permit.

<b>Inspection Type</b>	<b>Date</b>	<b>Summary/Results</b>
Full Inspection	10/24/2016	No compliance issues were identified
Full Inspection	9/5/2017	No areas of noncompliance were identified.
Full Inspection	6/19/2020	Several violations were noted: failing to submit a complete annual emission inventory, failing to submit notice of excess emissions, and failing to operate EU-04 (“Tunnel Kiln”) with the exhaust routed through a functional DIFF. Consent Order No. 22-279 was issued for these violations. On January 16, 2024, a closure letter was issued.
Full Inspection	4/22/2022	One violation was noted for not submitting an SAR within 30 days after the reporting period ending on February 23, 2022.
Full Inspection	2/8/2024	No issues of noncompliance regarding air quality were discovered.

**SECTION IX. TIER CLASSIFICATION, PUBLIC AND EPA REVIEW**

**Tier Classification**

This application has been determined to be **Tier II** based on the request for renewal of a Part 70 operating permit.

**Public Review**

The applicant published the “Notice of Filing a Tier II Application” in the *Muskogee Phoenix*, a daily newspaper in Muskogee County, Oklahoma, on March 27, 2024. The notice stated that the application can be reviewed at the Muskogee Public Library, 801 W Okmulgee Ave, Muskogee, OK 74401 or at the Air Quality Division’s main office.

The applicant will also publish the “Notice of Tier II Draft Permit” as a legal notice in a newspaper announcing that the draft permit will be available for a 30-day public review period. The notice will state that the draft permit can be reviewed at a specific location in the county where the facility is located and also at the Air Quality Division’s main office in Oklahoma City. The draft permit will also be available for public review on the Air Quality section of the DEQ web page at <https://www.deq.ok.gov>.

**Landowner Notification**

The permittee has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant owns the property.

**Bordering State Review**

The facility is not located within 50 miles of the border of Oklahoma and any other states.

**Tribal Review**

Tribal Nations will be notified of the draft permit.

**EPA Review**

The applicant requested and was granted concurrent public and EPA review periods. The draft/proposed permit will be sent to EPA for a 45-day review period. If no comments are received from the public, then the draft/proposed permit will be deemed the proposed permit.

**Public Petition**

If the Administrator does not object in writing during the 45-day EPA review period, any person that meets the requirements of OAC 252:100-8-8(j) may petition the Administrator within 60 days after the expiration of the Administrator's 45-day review period to make such objection. Any such petition shall be based only on objections to the permit that the petitioner raised with reasonable specificity during the public comment period provided for in 27A O.S. § 2-14-302.A.2, unless the petitioner demonstrates that it was impracticable to raise such objections within such period, or unless the grounds for such objection arose after such period. If the Administrator objects to the permit as a result of a petition filed under OAC 252:100-8-8(j), the DEQ shall not issue the permit until EPA's objection has been resolved, except that a petition for review does not stay the effectiveness of a permit or its requirements if the permit was issued after the end of the 45-day review period and prior to an EPA objection. If the DEQ has issued a permit prior to receipt of an EPA objection under OAC 252:100-8-8(j), the DEQ will modify, terminate, or revoke such permit, and shall do so consistent with the procedures in 40 CFR §§ 70.7(g)(4) or (5)(i) and (ii) except in

unusual circumstances. If the DEQ revokes the permit, it may thereafter issue only a revised permit that satisfies EPA's objection. In any case, the source will not be in violation of the requirement to have submitted a timely and complete application.

Information on all permit actions is available for review by the public in the Air Quality section of the DEQ Web page:<http://www.deq.ok.gov/>

**Fees Paid**

Part 70 operating permit renewal fee of \$7,500 has been received.

**SECTION X. SUMMARY**

The facility was constructed as described in the permit application. Ambient air quality standards are not threatened at this site. There are no active compliance or enforcement Air Quality issues that would preclude the issuance of this permit. Issuance of the permit is recommended, contingent on public, tribal, and EPA review.

**DRAFT/PROPOSED**

**PERMIT TO OPERATE  
AIR POLLUTION CONTROL FACILITY  
SPECIFIC CONDITIONS**

**General Shale Brick Inc  
GSBI Plant 68 DBA Red River Brick**

**Permit No. 2020-0512-TV4R4**

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on December 20, 2020. The Evaluation Memorandum, dated June 30, 2025, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein:

1. Emission limitations and points of emissions: [OAC 252:100-8-6(a)]

**EUG-01:** Both EU-01 and EU-02 have insignificant fugitive PM emissions and do not have specific emission limits.

**EUG-02:** Drying and Firing Process

Pollutants	EU-03		EU-04	
	lb/hr	TPY	lb/hr	TPY
NO <sub>x</sub>	-		12.81	56.11
CO	-		38.43	168.32
VOC	1.6	7.0	0.66	2.87
SO <sub>2</sub>	-	-	75.57	331.00
PM	4.43	19.40	26.16	114.60
PM <sub>10</sub>	3.99	17.48	23.71	103.86
PM <sub>2.5</sub>	3.99	17.48	23.71	103.86

Note: Compliance with the lb/hr limits are based on a 30-day rolling average of production.  
Compliance with the TPY limits are based on 12-month rolling total.

a. EU-04 shall be operated with exhaust routed through a functional dry injection fabric filter (DIFF) with controlled emission limits listed below:

HAPs	Controlled Emissions	
	lb/hr	TPY
Hydrochloric Acid	2.28	9.99
Hydrogen Fluoride	2.28	9.99

Note: Compliance with the lb/hr limits are based on a 30-day rolling average of production.  
Compliance with the TPY limits are based on 12-month rolling total.

- b. Pressure drop across the DIFF shall be between 2-6 in H<sub>2</sub>O in accordance with manufacturer's specification.
- c. The lime feed motor shall be maintained between 20-60 Hz..
- d. Permittee shall monitor the DIFF as follows:

- i. Visually check for free-flowing lime (daily)
  - ii. Record the lime feed rate setting (parametric reading from instruments on lime feeding equipment) (daily)
  - iii. Record the differential pressure across DIFF (daily)
  
2. The clay preparation building shall remain enclosed except for normal ventilation openings such as windows and entry doors. [OAC 252:100-8-6(a)]
  
3. The fuel-burning equipment shall be fueled with pipeline natural gas (0.5 gr S/100 SCF) or other fuels with the same or less sulfur emissions. Compliance can be shown by a current gas company bill or other approved methods. Compliance shall be demonstrated at least once annually. [OAC 252:100-31]
  
4. The facility shall be authorized to operate continuously (24 hours per day, every day of the year). [OAC 252:100-8-6(a)]
  
5. Brick production shall not exceed 23.7 tons/hr (30 day rolling average) and 207,612 tons/year (12 month rolling total). [OAC 252:100-8-6(a)] [OAC 252:100-43]
  
6. SO<sub>2</sub> emissions from the kiln (EU-04) shall not exceed 3.188 lb/ton fired product. [OAC 252:100-8-6(a)]
  
7. Emergency generator engine EU 05 is an affected source under NESHAP Subpart ZZZZ and shall comply with the requirements of the subpart, including but not limited to:  
[40 CFR §63.6580 through §63.6675]
  - What This Subpart Covers
    - a. § 63.6580 What is the purpose of subpart ZZZZ?
    - b. § 63.6585 Am I subject to this subpart?
    - c. § 63.6590 What parts of my plant does this subpart cover?
    - d. § 63.6595 When do I have to comply with this subpart?
  - Emission and Operating Limitations
    - e. § 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?
  - General Compliance Requirements
    - f. § 63.6605 What are my general requirements for complying with this subpart?
  - Testing and Initial Compliance Requirements
    - g. § 63.6625 What are my monitoring, installation, operation, and maintenance requirements?
    - h. § 63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?
  - Continuous Compliance Requirements
    - i. § 63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?
  - Notifications, Reports, and Records
    - j. § 63.6650 What reports must I submit and when?

- k. § 63.6655 What records must I keep?
- l. § 63.6660 In what form and how long must I keep my records?  
Other Requirements and Information
- m. § 63.6665 What parts of the General Provisions apply to me?
- n. § 63.6670 Who implements and enforces this subpart?
- o. § 63.6675 What definitions apply to this subpart?

8. The gasoline dispensing facility at the facility is an affected source under NESHAP Subpart CCCCCC and shall comply with the requirements of the subpart, including but not limited to:

[§§63.11110 – 63.11132]

- a. § 63.11110 What is the purpose of this subpart?
- b. § 63.11111 Am I subject to the requirements in this subpart?
- c. § 63.11112 What parts of my affected source does this subpart cover?
- d. § 63.11113 When do I have to comply with this subpart?
- e. § 63.11115 What are my general duties to minimize emissions?
- f. § 63.11116 Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.
- g. § 63.11120 What testing and monitoring requirements must I meet?
- h. § 63.11124 What notifications must I submit and when?
- i. § 63.11125 What are my recordkeeping requirements?
- j. § 63.11126 What are my reporting requirements?
- k. § 63.11130 What parts of the General Provisions apply to me?
- l. § 63.11131 Who implements and enforces this subpart?
- m. § 63.11132 What definitions apply to this subpart?

9. The permittee shall keep records of operations as listed below. These records shall be maintained on site and accessible to regulatory personnel upon request. Required records shall be retained for a period of at least five years following dates of recording. [OAC 252:100-43]

- a. Brick production rates by weight in tons/hr (30 day rolling average) and tons/year (12-month rolling total).
- b. Records required by Specific Condition No. 1.c for EUG-02.
- c. For fuel burned the appropriate documents as described in Specific Condition No. 3.
- d. Records required by NESHAP Subpart CCCCCC.
- e. Stack test results.
- f. Records required per OAC 252:100-8-36.2(c) to show that the emission increases do not exceed to PSD significance levels.

10. No later than 30 days after each anniversary date of the issuance of the original Title V permit (8/24/1998), the permittee shall submit to Air Quality Division of DEQ, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit.

[OAC 252:100-8-6 (c)(5)(A) & (D)]

11. Reasonable precautions shall be taken to minimize fugitive dust emissions from all activities. These precautions may include, but are not limited to: [OAC 252:100-43]

- a. Use of water or chemicals on roads, stockpiles, and materials during transfer operations.
- b. Application of other coatings or coverings to substances susceptible to becoming air-borne or wind-borne.
- c. Covering or wetting material in trucks.
- d. Planting and maintaining vegetation coverings or windbreaks.
- e. Locate stockpiles as to provide minimum exposure to high winds and avoid open spaces in line with neighboring homes and businesses.
- f. Curtail operations to the extent necessary to comply with the emissions limitations.

12. The following records shall be maintained on site to verify the status of insignificant activities.  
[OAC 252:100-43]

- a. Emissions from fuel storage/dispensing equipment operated solely for facility owned vehicles if fuel throughput is not more than 2,175 gallons/day, averaged over a 30-day period. Based on a review of fuel delivery invoices, GSBI shall certify for each calendar year that the fuel throughput for its fuel storage/dispensing equipment (operated solely for facility owned vehicles) was not more than 2,175 gallons/day, averaged over a 30-day period.

13. The permittee shall conduct stack test for SO<sub>2</sub> emissions at least once every two years and stack test for CO and PM<sub>10</sub>/PM<sub>2.5</sub> emissions at least once every 5 years in exhaust gases at the outlet of the dry injection fabric filter and submit a written report of the results to the AQD within 30 days.

[OAC 252:100-43]

- a. Performance testing by the permittee shall use the following test methods specified in 40 CFR Part 60.
  - Method 1: Sample and Velocity Traverses for Stationary Sources.
  - Method 2: Determination of Stack Gas Velocity and Volumetric Flow Rate.
  - Method 3: Gas Analysis for Carbon Dioxide, Excess Air, and Dry Molecular Weight.
  - Method 4: Determination of Moisture in Stack Gases.
  - Method 6C: Determination of SO<sub>2</sub> Emissions from Stationary Sources.
  - Method 10: Determination of CO Emissions from Stationary Sources.
  - Method 201A: Determination of PM<sub>2.5</sub> Emissions from Stationary Sources.
  - Method 202: Determination of Condensable Particulate Matter.
- b. A copy of the test plan shall be provided to AQD at least 30 days prior to each test date.

14. When periodic stack testing shows emissions in excess of the lb/hr limits listed in Specific Condition No. 1, the permittee shall comply with the provisions of OAC 252:100-9 for excess emissions.  
[OAC 252:100-9]

15. The Permit Shield (Standard Conditions, Section VI) is extended to the following requirements that have been determined to be inapplicable to this facility: [OAC 252:100-8-6(d)(2)]

- a. OAC 252:100-7, Permits for Minor Facilities
- b. OAC 252:100-8-4 (a)(2), Case-by-Case MACT

- c. OAC 252:100-17, Incinerators
- d. OAC 252:100-23, Cotton Gins
- e. OAC 252:100-24, Grain Elevators
- f. OAC 252:100-39, Nonattainment Areas
- g. OAC 252:100-47, Municipal Solid Waste Landfills
- h. OAC 252:100-33, Control of Emissions of Nitrogen Oxides
- i. OAC 252:100-35, Control of Emission of Carbon Monoxide

16. This permit supersedes all previous Air Quality operating permits for this facility, which are now canceled.

17. Compliance Assurance Monitoring (CAM) Requirements and Specifications for the tunnel kiln EU-04 are as follows: [40 CFR Part 64]

- a. § 64.1 Definitions.
- b. § 64.2 Applicability.
- c. § 64.3 Monitoring design criteria.
- d. § 64.6 Approval of monitoring.
- e. § 64.7 Operation of approved monitoring.
- f. § 64.8 Quality improvement plan (QIP) requirements.
- g. § 64.9 Reporting and recordkeeping requirements.

**Monitoring Requirements for the Tunnel Kiln**

	<b>Indicator No. 1</b>	<b>Indicator No. 2</b>
<b>I. Indicator</b>	<b>Pressure drop across DIFF</b>	<b>Lime feed rate</b>
Measurement Approach	Pressure drop across DIFF is monitored by a differential pressure transmitter that displays the value on a monitor in the kiln control room. The value is instantaneous and manually recorded once per day in the logbook in the control room.	The indicator used to monitor lime feed rate is the motor hertz setting of the variable speed drive (VFD) used to control the speed at which the lime feeder motor rotates. The motor hertz setting is displayed on the readout of the VFD and as a percentage of 60 Hz on a monitor in the kiln control room. The value is instantaneous and manually recorded once per day in the logbook in the kiln control room.
<b>II. Indicator Range</b>	2-6 in. H <sub>2</sub> O Excursions are defined as any one day where a value is not recorded in the logbook or any recorded value that is outside of the range of 2.0 to 6.0 inches of water column. Excursions trigger corrective action, logging and reporting in semiannual report.	20-60 Hz Excursions are defined as any one day where a value is not recorded in the logbook or any recorded value that is outside of the range 20-60 HZ or outside the range established during the most recent compliance test. Excursions trigger corrective action, logging and reporting in semiannual report.

	<b>Indicator No. 1</b>	<b>Indicator No. 2</b>
III. Performance Criteria		
A. Data Representativeness	Pressure drops across the fabric filters are measured at the filter inlet and exhaust. The minimum accuracy of the device is $\pm 0.1$ inch of water column.	The monitoring system consists of a voltmeter that is part of the WESP instrumentation. The minimum accuracy of the voltmeter is $\pm 0.2$ %.
B. QA/QC – Practices and Criteria	Calibrated in accordance with manufacturer recommendations. There is a local magnehelic gauge. Values from this gauge are compared with the value in the control room monthly to ensure accurate calibration.	Calibrated in accordance with manufacturer recommendations. Not less than once per week, the lime feed is measured and compared to the VFD setting. Calibration and adjustments are made as needed to maintain the required lime feed rate.
C. Monitoring Frequency	Continuously	Continuously
D. Data Collection Procedures	Records are maintained to document daily readings and any required maintenance.	Records are maintained to document daily readings and any required maintenance.
E. Averaging period	None, not to exceed minimum and maximum	None, not to exceed minimum and maximum



# PART 70 PERMIT

AIR QUALITY DIVISION  
STATE OF OKLAHOMA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
707 NORTH ROBINSON, SUITE 4100  
P.O. BOX 1677  
OKLAHOMA CITY, OKLAHOMA 73101-1677

Permit No. 2020-0512-TVR4

General Shale Brick Inc,

having complied with the requirements of the law, is hereby granted permission to operate the GSBI Plan 68 DBA Red River Brick facility at Muskogee, Muskogee County, Oklahoma, Subject to standard conditions dated June 21, 2016 and specific conditions, both attached.

This permit shall expire five (5) years from the date below, except as authorized under Section VIII of the Standard Conditions.

DRAFT/PROPOSED

\_\_\_\_\_  
Kendal Stegmann, Division Director  
Air Quality Division

\_\_\_\_\_  
Date

Mr. David McKeown  
General Shale Brick Inc  
7400 Carmel Executive Park, Suite 200  
Charlotte, NC 28226

Re: Title V Renewal Operating **Permit No. 2020-0512-TVR4**  
GSBI Plant 68 DBA Red River Brick (Facility ID: 171)  
3101 W. 53<sup>rd</sup> St. S., Muskogee, Muskogee County, Oklahoma

Dear Mr. McKeown:

Air Quality has received the permit application for the referenced facility and completed initial review. This application has been determined to be a **Tier II** application. In accordance with 27A O.S. 2-14-301 and 302 and OAC 252:4-7-13(c), the enclosed draft permit is now ready for public review. The requirements for public review of the draft permit include the following steps, which **you** must accomplish:

- A. Publish at least one legal notice (one day) in at least one newspaper of general circulation within the county where the facility is located (Instructions enclosed);
- B. Submit sample notice and provide date of publication to AQD 5 days prior to notice publishing;**
- C. Provide for public review, for a period of 30 days following the date of the newspaper announcement, a copy of the application and draft permit at a convenient location (preferentially at a public location) within the county of the facility;
- D. Send AQD a signed affidavit of publication for the notice(s) from Item #1 above within 20 days of publication of the draft permit. Any additional comments or requested changes you have for the draft permit or the application should be submitted within 30 days of publication.

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact me or the permit writer at (405) 702-4205.

Sincerely,



Phillip Fielder, P.E.  
Chief Engineer  
**AIR QUALITY DIVISION**



**Version 3** – For initial Title V operating permit, Title V operating permit renewal, Significant Modification to a Title V operating permit, and any Title V operating permit modification incorporating requirements of a construction permit that followed Traditional NSR process

**DEQ NOTICE OF TIER ...II or III... DRAFT PERMIT**

**A Tier ...II or III... application for an air quality ...type of permit or permit action being sought (e.g., significant modification to a Title V permit or Title V/Title V renewal permit) ... has been filed with the Oklahoma Department of Environmental Quality (DEQ) by applicant, ...name and address.**

**The applicant requests approval to ...brief description of purpose of application... at the ...site/facility name ... [proposed to be] located at ...physical address (if any), driving directions, and legal description including county....**

**In response to the application, DEQ has prepared a draft operating permit [modification] (Permit Number: ...xxxx-xxxx-x...), which may be reviewed at ...locations (one must be in the county where the site/facility is located)... or at the Air Quality Division's main office (see address below). The draft permit is also available for review under Permits for Public Review on the DEQ Web Page: <http://www.deq.ok.gov/>**

**This draft permit would authorize the facility to emit the following regulated pollutants: (list each pollutant and amounts in tons per year (TPY)) [For facility modifications only, either add: , which represents (identify the emissions change involved in the modification), or add: . The modification will not result in a change in emissions]**

**The public comment period ends 30 days after the date of publication of this notice. Any person may submit written comments concerning the draft permit to the Air Quality Division contact listed below or as directed through the corresponding online notice. [Modifications only, add: Only those issues relevant to the proposed modification(s) are open for comment.] A public meeting on the draft permit [modification] may also be requested in writing at the same address. Note that all public meetings are to be arranged and conducted by DEQ staff.**

**In addition to the public comment opportunity offered under this notice, this draft permit is subject to U.S. Environmental Protection Agency (EPA) review, EPA objection, and petition to EPA, as provided by 40 CFR § 70.8.**

**If the Administrator (EPA) does not object to the proposed permit, the public has 60 days following the Administrator's 45-day review period to petition the Administrator to make such an objection as provided in 40 CFR 70.8(d) and in OAC 252:100-8-8(j).**

**Information on all permit actions including draft permits, proposed permits, final issued permits and applicable review timelines are available in the Air Quality section of the DEQ Web page: <http://www.deq.ok.gov/>.**

**For additional information, contact ...names, addresses and telephone numbers of contact persons for the applicant, or contact DEQ at: Chief Engineer, Air Quality Division, 707 N. Robinson, Suite 4100, P.O. Box 1677, Oklahoma City, OK, 73101-1677. Phone No. (405) 702-4100.**

Chickasaw Nation  
Attn: Bill Anoatubby, Governor  
P.O. Box 1548, Ada, OK 74821

SUBJECT: Title V Renewal Operating **Permit No. 2020-0512-TVR4**  
GSBI Plant 68 DBA Red River Brick (Facility ID: 171)  
3101 W. 53<sup>rd</sup> St. S., Muskogee, Muskogee County, Oklahoma

Dear Mr. Anoatubby:

The Oklahoma Department of Environmental Quality (ODEQ), Air Quality Division (AQD), has received the Tier II application referenced above. A Tier II application requires the facility provide a 30-day public comment period on the draft Tier II permit at a public location within the county of the facility. The process requires the facility to notify the public by newspaper notice in a newspaper in the county of the proposed project. Since the proposed project falls within your Tribal jurisdiction, AQD is providing this direct notice. This letter notification is in addition to the newspaper notice.

Copies of draft permits and comment opportunities are also provided to the public on the ODEQ website at the following location:

<https://www.deq.ok.gov/air-quality-division/air-permits/public-participation-issued-permits/>

If you prefer a copy of the draft and/or proposed permit, or direct notification by letter for any remaining public comment opportunities, if applicable, on the referenced permit action, please notify me by e-mail at [phillip.fielder@deq.ok.gov](mailto:phillip.fielder@deq.ok.gov), or by letter at:

Department of Environmental Quality, Air Quality Division  
Attn: Phillip Fielder, Chief Engineer  
707 N Robinson  
Oklahoma City, OK, 73102

Thank you for your cooperation. If you have any questions, I can also be contacted at (405) 702-4185.

Sincerely,



Phillip Fielder, P.E.  
Chief Engineer  
AIR QUALITY DIVISION

Choctaw Nation of Oklahoma

Attn: Gary Batton, Chief  
PO Box 1210, Durant, OK 74702-1210

SUBJECT: Title V Renewal Operating **Permit No. 2020-0512-TVR4**  
GSBI Plant 68 DBA Red River Brick (Facility ID: 171)  
3101 W. 53<sup>rd</sup> St. S., Muskogee, Muskogee County, Oklahoma

Dear Mr. Batton:

The Oklahoma Department of Environmental Quality (ODEQ), Air Quality Division (AQD), has received the Tier II application referenced above. A Tier II application requires the facility provide a 30-day public comment period on the draft Tier II permit at a public location within the county of the facility. The process requires the facility to notify the public by newspaper notice in a newspaper in the county of the proposed project. Since the proposed project falls within your Tribal jurisdiction, AQD is providing this direct notice. This letter notification is in addition to the newspaper notice.

Copies of draft permits and comment opportunities are also provided to the public on the ODEQ website at the following location:

<https://www.deq.ok.gov/air-quality-division/air-permits/public-participation-issued-permits/>

If you prefer a copy of the draft and/or proposed permit, or direct notification by letter for any remaining public comment opportunities, if applicable, on the referenced permit action, please notify me by e-mail at [phillip.fielder@deq.ok.gov](mailto:phillip.fielder@deq.ok.gov), or by letter at:

Department of Environmental Quality, Air Quality Division  
Attn: Phillip Fielder, Chief Engineer  
707 N Robinson  
Oklahoma City, OK, 73102

Thank you for your cooperation. If you have any questions, I can also be contacted at (405) 702-4185.

Sincerely,



Phillip Fielder, P.E.

Chief Engineer  
AIR QUALITY DIVISION

---

Mr. David McKeown  
General Shale Brick Inc  
7400 Carmel Executive Park, Suite 200  
Charlotte, NC 28226

Re: Title V Renewal Operating **Permit No. 2020-0512-TV4**  
GSBI Plant 68 DBA Red River Brick (Facility ID: 171)  
3101 W. 53<sup>rd</sup> St. S., Muskogee, Muskogee County, Oklahoma

Dear Mr. McKeown:

Enclosed is the permit authorizing operation of the referenced facility. Please note that this permit is issued subject to certain standard and specific conditions, which are attached. These conditions must be carefully followed since they define the limits of the permit and will be confirmed by periodic inspections.

Also, note that you are required to annually submit an emissions inventory for this facility. An emissions inventory must be completed through DEQ's electronic reporting system by April 1st of every year. Any questions concerning the submittal process should be referred to the Emissions Inventory Staff at (405) 702-4100.

Thank you for your cooperation in this matter. If we may be of further service, please contact me at (405) 702-4205.

Sincerely,

DRAFT/PROPOSED

Phillip Fielder, P.E.  
Chief Engineer  
**AIR QUALITY DIVISION**

Enclosure

**MAJOR SOURCE AIR QUALITY PERMIT  
STANDARD CONDITIONS  
(June 21, 2016)**

**SECTION I. DUTY TO COMPLY**

A. This is a permit to operate / construct this specific facility in accordance with the federal Clean Air Act (42 U.S.C. 7401, et al.) and under the authority of the Oklahoma Clean Air Act and the rules promulgated there under. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

B. The issuing Authority for the permit is the Air Quality Division (AQD) of the Oklahoma Department of Environmental Quality (DEQ). The permit does not relieve the holder of the obligation to comply with other applicable federal, state, or local statutes, regulations, rules, or ordinances. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

C. The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of the Oklahoma Clean Air Act and shall be grounds for enforcement action, permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application. All terms and conditions are enforceable by the DEQ, by the Environmental Protection Agency (EPA), and by citizens under section 304 of the Federal Clean Air Act (excluding state-only requirements). This permit is valid for operations only at the specific location listed.

[40 C.F.R. §70.6(b), OAC 252:100-8-1.3 and OAC 252:100-8-6(a)(7)(A) and (b)(1)]

D. 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 paragraph 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. [OAC 252:100-8-6(a)(7)(B)]

**SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS**

A. Any exceedance resulting from an emergency and/or posing an imminent and substantial danger to public health, safety, or the environment shall be reported in accordance with Section XIV (Emergencies). [OAC 252:100-8-6(a)(3)(C)(iii)(I) & (II)]

B. Deviations that result in emissions exceeding those allowed in this permit shall be reported consistent with the requirements of OAC 252:100-9, Excess Emission Reporting Requirements. [OAC 252:100-8-6(a)(3)(C)(iv)]

C. Every written report submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F. [OAC 252:100-8-6(a)(3)(C)(iv)]

**SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING**

A. The permittee shall keep records as specified in this permit. These records, including monitoring data and necessary support information, shall be retained on-site or at a nearby field office for a period of at least five years from the date of the monitoring sample, measurement, report, or application, and shall be made available for inspection by regulatory personnel upon request. Support information includes all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Where appropriate, the permit may specify that records may be maintained in computerized form.

[OAC 252:100-8-6 (a)(3)(B)(ii), OAC 252:100-8-6(c)(1), and OAC 252:100-8-6(c)(2)(B)]

B. Records of required monitoring shall include:

- a. the date, place and time of sampling or measurement;
- b. the date or dates analyses were performed;
- c. the company or entity which performed the analyses;
- d. the analytical techniques or methods used;
- e. the results of such analyses; and
- f. the operating conditions existing at the time of sampling or measurement.

[OAC 252:100-8-6(a)(3)(B)(i)]

C. No later than 30 days after each six (6) month period, after the date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to AQD a report of the results of any required monitoring. All instances of deviations from permit requirements since the previous report shall be clearly identified in the report. Submission of these periodic reports will satisfy any reporting requirement of Paragraph E below that is duplicative of the periodic reports, if so noted on the submitted report.

[OAC 252:100-8-6(a)(3)(C)(i) and (ii)]

D. If any testing shows emissions in excess of limitations specified in this permit, the owner or operator shall comply with the provisions of Section II (Reporting Of Deviations From Permit Terms) of these standard conditions.

[OAC 252:100-8-6(a)(3)(C)(iii)]

E. In addition to any monitoring, recordkeeping or reporting requirement specified in this permit, monitoring and reporting may be required under the provisions of OAC 252:100-43, Testing, Monitoring, and Recordkeeping, or as required by any provision of the Federal Clean Air Act or Oklahoma Clean Air Act.

[OAC 252:100-43]

F. Any Annual Certification of Compliance, Semi Annual Monitoring and Deviation Report, Excess Emission Report, and Annual Emission Inventory submitted in accordance with this permit shall be certified by a responsible official. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

[OAC 252:100-8-5(f), OAC 252:100-8-6(a)(3)(C)(iv), OAC 252:100-8-6(c)(1), OAC 252:100-9-7(e), and OAC 252:100-5-2.1(f)]

G. Any owner or operator subject to the provisions of New Source Performance Standards (“NSPS”) under 40 CFR Part 60 or National Emission Standards for Hazardous Air Pollutants (“NESHAPs”) under 40 CFR Parts 61 and 63 shall maintain a file of all measurements and other information required by the applicable general provisions and subpart(s). These records shall be maintained in a permanent file suitable for inspection, shall be retained for a period of at least five years as required by Paragraph A of this Section, and shall include records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility, any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 C.F.R. §§60.7 and 63.10, 40 CFR Parts 61, Subpart A, and OAC 252:100, Appendix Q]

H. The permittee of a facility that is operating subject to a schedule of compliance shall submit to the DEQ a progress report at least semi-annually. The progress reports shall contain dates for achieving the activities, milestones or compliance required in the schedule of compliance and the dates when such activities, milestones or compliance was achieved. The progress reports shall also contain an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted. [OAC 252:100-8-6(c)(4)]

I. All testing must be conducted under the direction of qualified personnel by methods approved by the Division Director. All tests shall be made and the results calculated in accordance with standard test procedures. The use of alternative test procedures must be approved by EPA. When a portable analyzer is used to measure emissions it shall be setup, calibrated, and operated in accordance with the manufacturer’s instructions and in accordance with a protocol meeting the requirements of the “AQD Portable Analyzer Guidance” document or an equivalent method approved by Air Quality.

[OAC 252:100-8-6(a)(3)(A)(iv), and OAC 252:100-43]

J. The reporting of total particulate matter emissions as required in Part 7 of OAC 252:100-8 (Permits for Part 70 Sources), OAC 252:100-19 (Control of Emission of Particulate Matter), and OAC 252:100-5 (Emission Inventory), shall be conducted in accordance with applicable testing or calculation procedures, modified to include back-half condensables, for the concentration of particulate matter less than 10 microns in diameter (PM<sub>10</sub>). NSPS may allow reporting of only particulate matter emissions caught in the filter (obtained using Reference Method 5).

K. The permittee shall submit to the AQD a copy of all reports submitted to the EPA as required by 40 C.F.R. Part 60, 61, and 63, for all equipment constructed or operated under this permit subject to such standards. [OAC 252:100-8-6(c)(1) and OAC 252:100, Appendix Q]

#### **SECTION IV. COMPLIANCE CERTIFICATIONS**

A. No later than 30 days after each anniversary date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to the AQD, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit and of any other applicable requirements which have become effective since the issuance of this permit.

[OAC 252:100-8-6(c)(5)(A), and (D)]

B. The compliance certification shall describe the operating permit term or condition that is the basis of the certification; the current compliance status; whether compliance was continuous or intermittent; the methods used for determining compliance, currently and over the reporting period. The compliance certification shall also include such other facts as the permitting authority may require to determine the compliance status of the source.

[OAC 252:100-8-6(c)(5)(C)(i)-(v)]

C. The compliance certification shall contain a certification by a responsible official as to the results of the required monitoring. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

[OAC 252:100-8-5(f) and OAC 252:100-8-6(c)(1)]

D. Any facility reporting noncompliance shall submit a schedule of compliance for emissions units or stationary sources that are not in compliance with all applicable requirements. This schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the emissions unit or stationary source is in noncompliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the emissions unit or stationary source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based, except that a compliance plan shall not be required for any noncompliance condition which is corrected within 24 hours of discovery.

[OAC 252:100-8-5(e)(8)(B) and OAC 252:100-8-6(c)(3)]

## **SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM**

The permittee shall comply with any additional requirements that become effective during the permit term and that are applicable to the facility. Compliance with all new requirements shall be certified in the next annual certification.

[OAC 252:100-8-6(c)(6)]

## **SECTION VI. PERMIT SHIELD**

A. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC 252:100-8) shall be deemed compliance with the applicable requirements identified and included in this permit.

[OAC 252:100-8-6(d)(1)]

B. Those requirements that are applicable are listed in the Standard Conditions and the Specific Conditions of this permit. Those requirements that the applicant requested be determined as not applicable are summarized in the Specific Conditions of this permit.

[OAC 252:100-8-6(d)(2)]

**SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT**

The permittee shall file with the AQD an annual emission inventory and shall pay annual fees based on emissions inventories. The methods used to calculate emissions for inventory purposes shall be based on the best available information accepted by AQD.

[OAC 252:100-5-2.1, OAC 252:100-5-2.2, and OAC 252:100-8-6(a)(8)]

**SECTION VIII. TERM OF PERMIT**

A. Unless specified otherwise, the term of an operating permit shall be five years from the date of issuance. [OAC 252:100-8-6(a)(2)(A)]

B. A source's right to operate shall terminate upon the expiration of its permit unless a timely and complete renewal application has been submitted at least 180 days before the date of expiration. [OAC 252:100-8-7.1(d)(1)]

C. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-8-1.4(b)) if the construction is not commenced within 18 months after the date the permit or authorization was issued, or if work is suspended for more than 18 months after it is commenced. [OAC 252:100-8-1.4(a)]

D. The recipient of a construction permit shall apply for a permit to operate (or modified operating permit) within 180 days following the first day of operation. [OAC 252:100-8-4(b)(5)]

**SECTION IX. SEVERABILITY**

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

[OAC 252:100-8-6 (a)(6)]

**SECTION X. PROPERTY RIGHTS**

A. This permit does not convey any property rights of any sort, or any exclusive privilege. [OAC 252:100-8-6(a)(7)(D)]

B. This permit shall not be considered in any manner affecting the title of the premises upon which the equipment is located and does not release the permittee from any liability for damage to persons or property caused by or resulting from the maintenance or operation of the equipment for which the permit is issued. [OAC 252:100-8-6(c)(6)]

**SECTION XI. DUTY TO PROVIDE INFORMATION**

A. The permittee shall furnish to the DEQ, upon receipt of a written request and within sixty (60) days of the request unless the DEQ specifies another time period, any information that the DEQ may request to determine whether cause exists for modifying, reopening, revoking, reissuing,

terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit.

[OAC 252:100-8-6(a)(7)(E)]

B. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 27A O.S. § 2-5-105(18). Confidential information shall be clearly labeled as such and shall be separable from the main body of the document such as in an attachment.

[OAC 252:100-8-6(a)(7)(E)]

C. Notification to the AQD of the sale or transfer of ownership of this facility is required and shall be made in writing within thirty (30) days after such sale or transfer.

[Oklahoma Clean Air Act, 27A O.S. § 2-5-112(G)]

## SECTION XII. REOPENING, MODIFICATION & REVOCATION

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

[OAC 252:100-8-6(a)(7)(C) and OAC 252:100-8-7.2(b)]

B. The DEQ will reopen and revise or revoke this permit prior to the expiration date in the following circumstances:

[OAC 252:100-8-7.3 and OAC 252:100-8-7.4(a)(2)]

- a. Additional requirements under the Clean Air Act become applicable to a major source category three or more years prior to the expiration date of this permit. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.
- b. The DEQ or the EPA determines that this permit contains a material mistake or that the permit must be revised or revoked to assure compliance with the applicable requirements.
- c. The DEQ or the EPA determines that inaccurate information was used in establishing the emission standards, limitations, or other conditions of this permit. The DEQ may revoke and not reissue this permit if it determines that the permittee has submitted false or misleading information to the DEQ.
- d. DEQ determines that the permit should be amended under the discretionary reopening provisions of OAC 252:100-8-7.3(b).

C. The permit may be reopened for cause by EPA, pursuant to the provisions of OAC 100-8-7.3(d).

[OAC 100-8-7.3(d)]

D. The permittee shall notify AQD before making changes other than those described in Section XVIII (Operational Flexibility), those qualifying for administrative permit amendments, or those defined as an Insignificant Activity (Section XVI) or Trivial Activity (Section XVII). The notification should include any changes which may alter the status of a “grandfathered source,” as defined under AQD rules. Such changes may require a permit modification.

[OAC 252:100-8-7.2(b) and OAC 252:100-5-1.1]

E. Activities that will result in air emissions that exceed the trivial/insignificant levels and that are not specifically approved by this permit are prohibited. [OAC 252:100-8-6(c)(6)]

### SECTION XIII. INSPECTION & ENTRY

A. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized regulatory officials to perform the following (subject to the permittee's right to seek confidential treatment pursuant to 27A O.S. Supp. 1998, § 2-5-105(17) for confidential information submitted to or obtained by the DEQ under this section):

- a. enter upon the permittee's premises during reasonable/normal working hours 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 and using reasonable safety practices, 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 Oklahoma Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit.

[OAC 252:100-8-6(c)(2)]

### SECTION XIV. EMERGENCIES

A. Any exceedance resulting from an emergency shall be reported to AQD promptly but no later than 4:30 p.m. on the next working day after the permittee first becomes aware of the exceedance. This notice shall contain a description of the emergency, the probable cause of the exceedance, any steps taken to mitigate emissions, and corrective actions taken.

[OAC 252:100-8-6 (a)(3)(C)(iii)(I) and (IV)]

B. Any exceedance that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to AQD as soon as is practicable; but under no circumstance shall notification be more than 24 hours after the exceedance. [OAC 252:100-8-6(a)(3)(C)(iii)(II)]

C. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, 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 preventive maintenance, careless or improper operation, or operator error. [OAC 252:100-8-2]

D. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that: [OAC 252:100-8-6 (e)(2)]

- a. an emergency occurred and the permittee can identify the cause or causes of the emergency;

- b. the permitted facility was at the time being properly operated;
- c. 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 this permit.

E. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [OAC 252:100-8-6(e)(3)]

F. Every written report or document submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F. [OAC 252:100-8-6(a)(3)(C)(iv)]

## SECTION XV. RISK MANAGEMENT PLAN

The permittee, if subject to the provision of Section 112(r) of the Clean Air Act, shall develop and register with the appropriate agency a risk management plan by June 20, 1999, or the applicable effective date. [OAC 252:100-8-6(a)(4)]

## SECTION XVI. INSIGNIFICANT ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate individual emissions units that are either on the list in Appendix I to OAC Title 252, Chapter 100, or whose actual calendar year emissions do not exceed any of the limits below. Any activity to which a State or Federal applicable requirement applies is not insignificant even if it meets the criteria below or is included on the insignificant activities list.

- a. 5 tons per year of any one criteria pollutant.
- b. 2 tons per year for any one hazardous air pollutant (HAP) or 5 tons per year for an aggregate of two or more HAP's, or 20 percent of any threshold less than 10 tons per year for single HAP that the EPA may establish by rule.

[OAC 252:100-8-2 and OAC 252:100, Appendix I]

## SECTION XVII. TRIVIAL ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate any individual or combination of air emissions units that are considered inconsequential and are on the list in Appendix J. Any activity to which a State or Federal applicable requirement applies is not trivial even if included on the trivial activities list.

[OAC 252:100-8-2 and OAC 252:100, Appendix J]

## SECTION XVIII. OPERATIONAL FLEXIBILITY

A. A facility may implement any operating scenario allowed for in its Part 70 permit without the need for any permit revision or any notification to the DEQ (unless specified otherwise in the permit). When an operating scenario is changed, the permittee shall record in a log at the facility the scenario under which it is operating. [OAC 252:100-8-6(a)(10) and (f)(1)]

- B. The permittee may make changes within the facility that:
- a. result in no net emissions increases,
  - b. are not modifications under any provision of Title I of the federal Clean Air Act, and
  - c. do not cause any hourly or annual permitted emission rate of any existing emissions unit to be exceeded;

provided that the facility provides the EPA and the DEQ with written notification as required below in advance of the proposed changes, which shall be a minimum of seven (7) days, or twenty four (24) hours for emergencies as defined in OAC 252:100-8-6 (e). The permittee, the DEQ, and the EPA shall attach each such notice to their copy of the permit. For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The permit shield provided by this permit does not apply to any change made pursuant to this paragraph. [OAC 252:100-8-6(f)(2)]

#### **SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS**

- A. The following applicable requirements and state-only requirements apply to the facility unless elsewhere covered by a more restrictive requirement:
- a. Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning Subchapter. [OAC 252:100-13]
  - b. No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]
  - c. For all emissions units not subject to an opacity limit promulgated under 40 C.F.R., Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for: [OAC 252:100-25]
    - a. Short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity;
    - b. Smoke resulting from fires covered by the exceptions outlined in OAC 252:100-13-7;
    - c. An emission, where the presence of uncombined water is the only reason for failure to meet the requirements of OAC 252:100-25-3(a); or
    - d. Smoke generated due to a malfunction in a facility, when the source of the fuel producing the smoke is not under the direct and immediate control of the facility and the immediate constriction of the fuel flow at the facility would produce a hazard to life and/or property.
  - d. No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of

adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. [OAC 252:100-29]

- e. No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lb/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]
- f. Volatile Organic Compound (VOC) storage tanks built after December 28, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with a vapor-recovery system. [OAC 252:100-37-15(b)]
- g. All fuel-burning equipment shall at all times be properly operated and maintained in a manner that will minimize emissions of VOCs. [OAC 252:100-37-36]

## SECTION XX. STRATOSPHERIC OZONE PROTECTION

A. The permittee shall comply with the following standards for production and consumption of ozone-depleting substances: [40 CFR 82, Subpart A]

- (1) Persons producing, importing, or placing an order for production or importation of certain class I and class II substances, HCFC-22, or HCFC-141b shall be subject to the requirements of §82.4;
- (2) Producers, importers, exporters, purchasers, and persons who transform or destroy certain class I and class II substances, HCFC-22, or HCFC-141b are subject to the recordkeeping requirements at §82.13; and
- (3) Class I substances (listed at Appendix A to Subpart A) include certain CFCs, Halons, HBFCs, carbon tetrachloride, trichloroethane (methyl chloroform), and bromomethane (Methyl Bromide). Class II substances (listed at Appendix B to Subpart A) include HCFCs.

B. If the permittee performs a service on motor (fleet) vehicles when this service involves an ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all applicable requirements. Note: The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant. [40 CFR 82, Subpart B]

C. The permittee shall comply with the following standards for recycling and emissions reduction except as provided for MVACs in Subpart B: [40 CFR 82, Subpart F]

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156;
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158;
- c. Persons performing maintenance, service, repair, or disposal of appliances must be

- certified by an approved technician certification program pursuant to § 82.161;
- d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166;
  - e. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.158; and
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

## SECTION XXI. TITLE V APPROVAL LANGUAGE

A. DEQ wishes to reduce the time and work associated with permit review and, wherever it is not inconsistent with Federal requirements, to provide for incorporation of requirements established through construction permitting into the Source's Title V permit without causing redundant review. Requirements from construction permits may be incorporated into the Title V permit through the administrative amendment process set forth in OAC 252:100-8-7.2(a) only if the following procedures are followed:

- (1) The construction permit goes out for a 30-day public notice and comment using the procedures set forth in 40 C.F.R. § 70.7(h)(1). This public notice shall include notice to the public that this permit is subject to EPA review, EPA objection, and petition to EPA, as provided by 40 C.F.R. § 70.8; that the requirements of the construction permit will be incorporated into the Title V permit through the administrative amendment process; that the public will not receive another opportunity to provide comments when the requirements are incorporated into the Title V permit; and that EPA review, EPA objection, and petitions to EPA will not be available to the public when requirements from the construction permit are incorporated into the Title V permit.
- (2) A copy of the construction permit application is sent to EPA, as provided by 40 CFR § 70.8(a)(1).
- (3) A copy of the draft construction permit is sent to any affected State, as provided by 40 C.F.R. § 70.8(b).
- (4) A copy of the proposed construction permit is sent to EPA for a 45-day review period as provided by 40 C.F.R. § 70.8(a) and (c).
- (5) The DEQ complies with 40 C.F.R. § 70.8(c) upon the written receipt within the 45-day comment period of any EPA objection to the construction permit. The DEQ shall not issue the permit until EPA's objections are resolved to the satisfaction of EPA.
- (6) The DEQ complies with 40 C.F.R. § 70.8(d).
- (7) A copy of the final construction permit is sent to EPA as provided by 40 CFR § 70.8(a).
- (8) The DEQ shall not issue the proposed construction permit until any affected State and EPA have had an opportunity to review the proposed permit, as provided by these permit conditions.
- (9) Any requirements of the construction permit may be reopened for cause after incorporation into the Title V permit by the administrative amendment process, by DEQ as provided in OAC 252:100-8-7.3(a), (b), and (c), and by EPA as provided in 40 C.F.R. § 70.7(f) and (g).

(10) The DEQ shall not issue the administrative permit amendment if performance tests fail to demonstrate that the source is operating in substantial compliance with all permit requirements.

a. To the extent that these conditions are not followed, the Title V permit must go through the Title V review process.

## **SECTION XXII. CREDIBLE EVIDENCE**

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any provision of the Oklahoma implementation plan, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[OAC 252:100-43-6]

**Department of Environmental Quality (DEQ)**  
**Air Quality Division (AQD)**  
**Acronym List**  
**11-21-2024**

<b>ACFM</b>	Actual Cubic Feet per Minute	<b>GDF</b>	Gasoline Dispensing Facility
<b>AD</b>	Applicability Determination	<b>GEP</b>	Good Engineering Practice
<b>AFRC</b>	Air-to-Fuel Ratio Controller	<b>GHG</b>	Greenhouse Gases
<b>API</b>	American Petroleum Institute	<b>GR</b>	Grain(s) (gr)
<b>ASTM</b>	American Society for Testing and Materials	<b>H<sub>2</sub>CO</b>	Formaldehyde
<b>AVO</b>	Audio, Visual, or Olfactory	<b>H<sub>2</sub>S</b>	Hydrogen Sulfide
		<b>HAP</b>	Hazardous Air Pollutants
<b>BACT</b>	Best Available Control Technology	<b>HC</b>	Hydrocarbon
<b>BAE</b>	Baseline Actual Emissions	<b>HCFC</b>	Hydrochlorofluorocarbon
<b>BBL</b>	Barrel(s)	<b>HFR</b>	Horizontal Fixed Roof
<b>BHP</b>	Brake Horsepower (bhp)	<b>HON</b>	Hazardous Organic NESHAP
<b>BTEX</b>	Benzene, Toluene, Ethylbenzene, Xylene	<b>HP</b>	Horsepower (hp)
<b>BTU</b>	British thermal unit (Btu)	<b>HR</b>	Hour (hr)
		<b>I&amp;M</b>	Inspection and Maintenance
<b>C&amp;E</b>	Compliance and Enforcement	<b>IBR</b>	Incorporation by Reference
<b>CAA</b>	Clean Air Act	<b>ICE</b>	Internal Combustion Engine
<b>CAM</b>	Compliance Assurance Monitoring		
<b>CAS</b>	Chemical Abstract Service	<b>LAER</b>	Lowest Achievable Emission Rate
<b>CAAA</b>	Clean Air Act Amendments	<b>LB</b>	Pound(s) [Mass] (lb, lbs, lbm)
<b>CC</b>	Catalytic Converter	<b>LB/HR</b>	Pound(s) per Hour (lb/hr)
<b>CCR</b>	Continuous Catalyst Regeneration	<b>LDAR</b>	Leak Detection and Repair
<b>CD</b>	Consent Decree	<b>LNG</b>	Liquefied Natural Gas
<b>CEM</b>	Continuous Emission Monitor	<b>LT</b>	Long Ton(s) (metric)
<b>CFC</b>	Chlorofluorocarbon	<b>LPE</b>	Legally and Practicably Enforceable
<b>CFR</b>	Code of Federal Regulations		
<b>CI</b>	Compression Ignition	<b>M</b>	Thousand (Roman Numeral)
<b>CNG</b>	Compressed Natural Gas	<b>MAAC</b>	Maximum Acceptable Ambient Concentration
<b>CO</b>	Carbon Monoxide or Consent Order	<b>MACT</b>	Maximum Achievable Control Technology
<b>COA</b>	Capable of Accommodating	<b>MM</b>	Prefix used for Million (Thousand-Thousand)
<b>COM</b>	Continuous Opacity Monitor	<b>MMBTU</b>	Million British Thermal Units (MMBtu)
		<b>MMBTUH</b>	Million British Thermal Units per Hour (MMBtu/hr)
<b>D</b>	Day	<b>MMSCF</b>	Million Standard Cubic Feet (MMscf)
<b>DEF</b>	Diesel Exhaust Fluid	<b>MMSCFD</b>	Million Standard Cubic Feet per Day
<b>DG</b>	Demand Growth	<b>MSDS</b>	Material Safety Data Sheet
<b>DSCF</b>	Dry Standard (At Standard Conditions) Cubic Foot (Feet)	<b>MWC</b>	Municipal Waste Combustor
		<b>MWe</b>	Megawatt Electrical
<b>EGU</b>	Electric Generating Unit	<b>NA</b>	Nonattainment
<b>EI</b>	Emissions Inventory	<b>NAAQS</b>	National Ambient Air Quality Standards
<b>EPA</b>	Environmental Protection Agency	<b>NAICS</b>	North American Industry Classification System
<b>ESP</b>	Electrostatic Precipitator	<b>NESHAP</b>	National Emission Standards for Hazardous Air Pollutants
<b>EUG</b>	Emissions Unit Group	<b>NH<sub>3</sub></b>	Ammonia
<b>EUSGU</b>	Electric Utility Steam Generating Unit	<b>NMHC</b>	Non-methane Hydrocarbon
		<b>NGL</b>	Natural Gas Liquids
<b>FCE</b>	Full Compliance Evaluation	<b>NO<sub>2</sub></b>	Nitrogen Dioxide
<b>FCCU</b>	Fluid Catalytic Cracking Unit	<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>FEL</b>	Federally Enforceable Limit(s)		
<b>FIP</b>	Federal Implementation Plan		
<b>FR</b>	Federal Register		
<b>GACT</b>	Generally Achievable Control Technology		
<b>GAL</b>	Gallon (gal)		

<b>NOI</b>	Notice of Intent	<b>SIP</b>	State Implementation Plan
<b>NSCR</b>	Non-Selective Catalytic Reduction	<b>SNCR</b>	Selective Non-Catalytic Reduction
<b>NSPS</b>	New Source Performance Standards	<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>NSR</b>	New Source Review	<b>SO<sub>x</sub></b>	Sulfur Oxides
		<b>SOP</b>	Standard Operating Procedure
<b>O<sub>3</sub></b>	Ozone	<b>SRU</b>	Sulfur Recovery Unit
<b>O&amp;G</b>	Oil and Gas		
<b>O&amp;M</b>	Operation and Maintenance	<b>T</b>	Tons
<b>O&amp;NG</b>	Oil and Natural Gas	<b>TAC</b>	Toxic Air Contaminant
<b>OAC</b>	Oklahoma Administrative Code	<b>TEG</b>	Triethylene Glycol
<b>OC</b>	Oxidation Catalyst	<b>THC</b>	Total Hydrocarbons
<b>OGI</b>	Optical Gas Imaging	<b>TPY</b>	Tons per Year
		<b>TRS</b>	Total Reduced Sulfur
<b>PAH</b>	Polycyclic Aromatic Hydrocarbons	<b>TSP</b>	Total Suspended Particulates
<b>PAE</b>	Projected Actual Emissions	<b>TV</b>	Title V of the Federal Clean Air Act
<b>PAL</b>	Plant-wide Applicability Limit		
<b>Pb</b>	Lead	<b>µg/m<sup>3</sup></b>	Micrograms per Cubic Meter
<b>PBR</b>	Permit by Rule	<b>US EPA</b>	U. S. Environmental Protection Agency
<b>PCB</b>	Polychlorinated Biphenyls		
<b>PCE</b>	Partial Compliance Evaluation	<b>VFR</b>	Vertical Fixed Roof
<b>PEA</b>	Portable Emissions Analyzer	<b>VMT</b>	Vehicle Miles Traveled
<b>PFAS</b>	Per- and Polyfluoroalkyl Substance	<b>VOC</b>	Volatile Organic Compound
<b>PM</b>	Particulate Matter	<b>VOL</b>	Volatile Organic Liquid
<b>PM<sub>2.5</sub></b>	Particulate Matter with an Aerodynamic Diameter <= 2.5 Micrometers	<b>VRT</b>	Vapor Recovery Tower
<b>PM<sub>10</sub></b>	Particulate Matter with an Aerodynamic Diameter <= 10 Micrometers	<b>VRU</b>	Vapor Recovery Unit
<b>POM</b>	Particulate Organic Matter or Polycyclic Organic Matter	<b>YR</b>	Year
<b>ppb</b>	Parts per Billion	<b>2SLB</b>	2-Stroke Lean Burn
<b>ppm</b>	Parts per Million	<b>4SLB</b>	4-Stroke Lean Burn
<b>ppmv</b>	Parts per Million Volume	<b>4SRB</b>	4-Stroke Rich Burn
<b>ppmvd</b>	Parts per Million Dry Volume		
<b>PSD</b>	Prevention of Significant Deterioration		
<b>psi</b>	Pounds per Square Inch		
<b>psia</b>	Pounds per Square Inch Absolute		
<b>psig</b>	Pounds per Square Inch Gage		
<b>RACT</b>	Reasonably Available Control Technology		
<b>RATA</b>	Relative Accuracy Test Audit		
<b>RAP</b>	Regulated Air Pollutant or Reclaimed Asphalt Pavement		
<b>RFG</b>	Refinery Fuel Gas		
<b>RICE</b>	Reciprocating Internal Combustion Engine		
<b>RO</b>	Responsible Official		
<b>ROAT</b>	Regional Office at Tulsa		
<b>RVP</b>	Reid Vapor Pressure		
<b>SCC</b>	Source Classification Code		
<b>SCF</b>	Standard Cubic Foot		
<b>SCFD</b>	Standard Cubic Feet per Day		
<b>SCFM</b>	Standard Cubic Feet per Minute		
<b>SCR</b>	Selective Catalytic Reduction		
<b>SER</b>	Significant Emission Rate		
<b>SI</b>	Spark Ignition		
<b>SIC</b>	Standard Industrial Classification		