FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO
Lehigh White Cement Company, LLC

AUTHORIZING THE OPERATION OF
Lehigh White Cement Waco Plant
Cement Manufacturing

LOCATED AT
McLennan County, Texas
Latitude 31° 28′ 57″ Longitude 97° 14′ 48″
Regulated Entity Number: RN100218254

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: O1035 Issuance Date: _____

_____
For the Commission

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General Terms and Conditions

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

Special Terms and Conditions:

Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

1. Permit holder shall comply with the following requirements:

    A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.

    B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

    C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.

    D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.

    E. Emission units subject to 40 CFR Part 63, Subparts LLL or ZZZZ as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113,

Subchapter C, § 113.690 or § 113.1090 which incorporate the 40 CFR Part 63 Subparts by reference.

2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):

   A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements

   B. Title 30 TAC § 101.3 (relating to Circumvention)

   C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ

   D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ

   E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)

   F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)

   G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)

   H. Title 30 TAC § 101.221 (relating to Operational Requirements)

   I. Title 30 TAC § 101.222 (relating to Demonstrations)

   J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)

3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:

   A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:

      (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)

      (ii) Title 30 TAC § 111.111(a)(1)(E)

      (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)

      (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that

does not obstruct the transmission of light. Vents, as specified in the "Applicable Requirements Summary" attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:

(1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.

(2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.

(3) Records of all observations shall be maintained.

(4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(5) Compliance Certification:

(a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is

determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

(c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

B. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.

C. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).

D. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:

(i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)

(ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)

(iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)

4. Permit holder shall comply with the following 30 TAC Chapter 115, Subchapter C requirements:

A. When filling stationary gasoline storage containers with a nominal capacity less than or equal to 1,000 gallons at a Stage I motor vehicle fuel dispensing facility, the permit holder shall comply with the following requirements specified in 30 TAC Chapter 115, Subchapter C:

(i) Title 30 TAC § 115.222(3) (relating to Control Requirements), as it applies to liquid gasoline leaks, visible vapors, or significant odors

(ii) Title 30 TAC § 115.222(6) (relating to Control Requirements)

(iii) Title 30 TAC § 115.224(1) (relating to Inspection Requirements), as it applies to liquid gasoline leaks, visible vapors, or significant odors

5. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:

A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)

B. Title 40 CFR § 60.8 (relating to Performance Tests)

C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)

D. Title 40 CFR § 60.12 (relating to Circumvention)

E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)

F. Title 40 CFR § 60.14 (relating to Modification)

G. Title 40 CFR § 60.15 (relating to Reconstruction)

H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)

6. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.

7. For each gasoline dispensing facility, with a throughput of less than 10,000 gallons per month as specified in 40 CFR Part 63, Subpart CCCCCC, the permit holder shall comply with the following requirements (Title 30 TAC, Subchapter C, § 113.1380 incorporated by reference):

A. Title 40 CFR § 63.11111(e), for records of monthly throughput

B. Title 40 CFR § 63.11111(i), for compliance due to increase of throughput

C. Title 40 CFR § 63.11113(c), for compliance due to increase of throughput

D. Title 40 CFR § 63.11115(a), for operation of the source

E. Title 40 CFR § 63.11116(a) and (a)(1) - (4), for work practices

F. Title 40 CFR § 63.11116(b), for records availability

G. Title 40 CFR § 63.11116(d), for portable gasoline containers

8. For open clinker storage piles, the permit holder shall comply with the following requirements of 40 CFR Part 63, Subpart LLL for control of fugitive dust emissions:

A. Title 40 CFR § 63.1343(c) and (c)(1) (relating to Standards for kilns, clinker coolers, raw material dryers, and open clinker storage piles), for preparation of and operation in accordance with fugitive dust emissions control measures in an operation and maintenance plan.

B. Title 40 CFR § 60.1343(c)(2) (relating to Standards for kilns, clinker coolers, raw material dryers, and open clinker storage piles), for control measures for open clinker storage piles.

C. Title 40 CFR § 60.1343(c)(3) (relating to Standards for kilns, clinker coolers, raw material dryers, and open clinker storage piles), for cleanup of temporary clinker piles.

Additional Monitoring Requirements

9. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached "CAM Summary" upon issuance of the permit. In addition, the permit holder shall comply with the following:

   A. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).

   B. The permit holder shall report, consistent with the averaging time identified in the "CAM Summary," deviations as defined by the deviation limit in the "CAM Summary." Any monitoring data below a minimum limit or above a maximum limit, that is collected in accordance with the requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

   C. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time or minimum frequency specified in the "CAM Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).

   D. The permit holder shall operate the monitoring, identified in the attached "CAM Summary," in accordance with the provisions of 40 CFR § 64.7.

   E. The permit holder shall comply with the requirements of 40 CFR § 70.6(a)(3)(ii)(A) and 30 TAC § 122.144(1)(A)-(F) for documentation of all required inspections.

10. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Periodic Monitoring Summary" upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time or minimum frequency specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

New Source Review Authorization Requirements

11. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule (including the terms, conditions, monitoring, recordkeeping, and reporting identified in registered PBRs and permits by rule identified in the PBR Supplemental Tables dated December 10, 2025 in the application for project 39079), standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:

A. Are incorporated by reference into this permit as applicable requirements

B. Shall be located with this operating permit

C. Are not eligible for a permit shield

12. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.

13. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

14. The permit holder shall comply with the following requirements for Air Quality Standard Permits:

A. Registration requirements listed in 30 TAC § 116.611, unless otherwise provided for in an Air Quality Standard Permit

B. General Conditions listed in 30 TAC § 116.615, unless otherwise provided for in an Air Quality Standard Permit

C. Requirements of the non-rule Air Quality Standard Permit for Pollution Control Projects

Compliance Requirements

15. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.

A. The permit holder shall comply with the compliance schedule as required in 30 TAC § 117.9320 for cement kilns.

16. Use of Discrete Emission Credits to comply with the applicable requirements:

A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:

(i) Title 30 TAC Chapter 115

(ii) Title 30 TAC Chapter 117

(iii) If applicable, offsets for Title 30 TAC Chapter 116

(iv) Temporarily exceed state NSR permit allowables

B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:

(i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)

(ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4

(iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)

(iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122

(v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

Protection of Stratospheric Ozone

17. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone:

A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.

B. Any on site servicing, maintenance, and repair of fleet vehicle air conditioning using ozone-depleting refrigerants shall be conducted in accordance with 40 CFR Part 82, Subpart B. Permit holders shall ensure that repairs or refrigerant removal are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart B.

Permit Location

18. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

Permit Shield (30 TAC § 122.148)

19. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit

shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

Permit Shield

New Source Review Authorization References

Applicable Requirements Summary

Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (§ 122.144), Reporting Terms and Conditions (§ 122.145), and Compliance Certification Terms and Conditions (§ 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
39WP-K	DRYER/KILN/OVEN	N/A	R7-117	30 TAC Chapter 117, Cement Kilns	No changing attributes.
E1	SRIC ENGINES	N/A	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
GRPKILN1	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	KBH, KILN-1, KPH-1	R1151	30 TAC Chapter 111, Nonagricultural Processes	No changing attributes.
GRPKILN1	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	KBH, KILN-1, KPH-1	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
GRPKILN1	DRYER/KILN/OVEN	KBH, KILN-1, KPH-1	R7-117	30 TAC Chapter 117, Cement Kilns	No changing attributes.
GRPKILN1	MINERAL PROCESSING PLANT	KBH, KILN-1, KPH-1	60F	40 CFR Part 60, Subpart F	No changing attributes.
GRPKILN1	MINERAL PROCESSING PLANT	KBH, KILN-1, KPH-1	63LLL	40 CFR Part 63, Subpart LLL	No changing attributes.
GRPKILNCNV2	MINERAL PROCESSING PLANT	KCD-4, KDS	60F	40 CFR Part 60, Subpart F	No changing attributes.
GRPVENT1	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	28, 31, 32, 33, 34, 36, 37, 38, 69, CWM, F-41, F-42, F-45, F-47, F-48	R111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
GRPVENT2	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	033 VENT, 057 VENT, 27, 39WP-K, 51WP-CC, 60WP-CCT, 61WP-CSV, 65, 70, 77, CDC-4 VENT, F-62, FDC-3 VENT, FDC-4 VENT, IDC-1 VENT,	R111	30 TAC Chapter 111, Visible Emissions	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
		IDC-3 VENT, KPH-1 VENT, PACKERVENT			
GRPWCG2	MINERAL PROCESSING PLANT	FCC-1, FDC-1A, SEP-1	60F	40 CFR Part 60, Subpart F	No changing attributes.
GRPWCGCNV2	MINERAL PROCESSING PLANT	FDC-3, FDC-4	60F	40 CFR Part 60, Subpart F	No changing attributes.
GRPWCP2	MINERAL PROCESSING PLANT	PACKER, PDC-2	60F	40 CFR Part 60, Subpart F	No changing attributes.
GRPWCS2	MINERAL PROCESSING PLANT	ICS, ICU, IDC-1, IDC-3	60F	40 CFR Part 60, Subpart F	No changing attributes.
GRPWSCNV2	MINERAL PROCESSING PLANT	RDC-1, RDC-2	60F	40 CFR Part 60, Subpart F	No changing attributes.
Q-DRYER	MINERAL PROCESSING PLANT	N/A	60F	40 CFR Part 60, Subpart F	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
39WP-K	EU	R7-117	NO_X	30 TAC Chapter 117, Cement Kilns	§ 117.3110(c) § 117.3103(c)	Each long wet or long dry kiln for which the applicable controls are installed and operated during kiln operation is not required to meet the NOX emission specifications of §117.3110(a), provided that each owner or operator choosing this option submits written notification of this choice to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction before the appropriate compliance date in §117.9320 of this title.	§ 117.3140(a) § 117.3140(b) [G]§ 117.3140(b)(1) [G]§ 117.3140(b)(2) § 117.3140(b)(3)	§ 117.3145(c) [G]§ 117.3145(c)(1) § 117.3145(c)(2) § 117.3145(c)(3)	§ 117.3145(a) [G]§ 117.3145(b)
E1	EU	63ZZZZ	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6603(a)-Table 2d.4 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(f) § 63.6625(h) § 63.6625(i) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(4) § 63.6640(f)(4)(i)	For each existing emergency stationary CI RICE and black start stationary CI RICE, located at an area source, you must comply with the requirements as specified in Table 2d.4.a-c.	§ 63.6625(i) § 63.6640(a) § 63.6640(a)-Table 6.9.a.i § 63.6640(a)-Table 6.9.a.ii	§ 63.6625(i) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(e) § 63.6650(f)
GRPKILN1	EP	R1151	PM	30 TAC Chapter 111, Nonagricultural Processes	§ 111.151(a) § 111.151(c)	No person may cause, suffer, allow, or permit emissions of particulate matter from any source to exceed the allowable rates	** See CAM Summary	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						specified in Table 1 as follows, except as provided by §111.153 of this title (relating to Emissions Limits for Steam Generators).			
GRPKILN1	EP	R1111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	§ 111.111(a)(1)(D) [G]§ 111.111(a)(1)(F)	§ 111.111(a)(1)(C) § 111.111(a)(1)(D)	None
GRPKILN1	EU	R7-117	NH_3	30 TAC Chapter 117, Cement Kilns	§ 117.3123(f)	For any kiln that injects urea or ammonia for NO_x control, the owner or operator shall not allow ammonia emissions in excess of 10 parts per million by volume at 7.0% oxygen, dry basis, on a 24-hour rolling average basis.	§ 117.3142(a)(2) § 117.3142(a)(3) § 117.3142(a)(4) § 117.8130 § 117.8130(1) § 117.8130(2) § 117.8130(4)	§ 117.3145(c) § 117.3145(c)(2) § 117.3145(c)(3) § 117.3145(c)(4) § 117.3145(c)(4)(A) § 117.3145(c)(4)(F) § 117.3145(c)(4)(G)	§ 117.3145(a) [G]§ 117.3145(b)
GRPKILN1	EU	R7-117	NO_X	30 TAC Chapter 117, Cement Kilns	§ 117.3120(a) § 117.3103(c) § 117.3120(d) § 117.3120(f)	As an alternative to requirements of §117.3110 in Bexar, Comal, Ellis, Hays, and McLennan Counties, an owner or operator may reduce total NO_X emissions in ppd from all cement kilns at the account (including any cement kilns placed into service on or after 12/31/1999) to at least 30% less than the total NO_X emissions in ppd from all cement kilns in the account's 1996 emissions	§ 117.3120(e) § 117.3140(a) § 117.3140(b) [G]§ 117.3140(b)(1) [G]§ 117.3140(b)(2) § 117.3140(b)(3)	§ 117.3145(c) [G]§ 117.3145(c)(1) § 117.3145(c)(2) § 117.3145(c)(3)	§ 117.3120(b) § 117.3120(c) § 117.3120(d) § 117.3145(a) [G]§ 117.3145(b)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						inventory, on a 90--day rolling average basis. The average is calculated as specified.			
GRPKILN1	EU	60F	PM	40 CFR Part 60, Subpart F	§ 60.62(a)(1)(i) § 60.62(a) § 60.62(a)(1) § 60.62(d) [G]§ 60.63(b)(1) [G]§ 63.1350(m)(10) [G]§ 63.1350(m)(11)	On and after the date on which the performance test required to be conducted by §60.8 is completed, you may not discharge into the atmosphere from any kiln any gases which contain particulate matter (PM) in excess of 0.30 pound per ton of feed (dry basis) to the kiln if construction, reconstruction, or modification of the kiln commences after August 17, 1971 but on or before June 16, 2008.	§ 60.63(b) [G]§ 60.63(b)(1) § 60.63(b)(2) [G]§ 60.63(i) § 60.64(a) § 60.64(b)(1) [G]§ 63.1350(m)(10) [G]§ 63.1350(m)(11)	§ 60.63(b)(2) § 60.63(b)(3) [G]§ 60.63(i) [G]§ 63.1350(m)(10)	[G]§ 60.63(i) § 60.64(d)(1) § 60.64(d)(3) § 60.64(d)(4)
GRPKILN1	EU	60F	PM (Opacity)	40 CFR Part 60, Subpart F	§ 60.62(a)(2) § 60.62(a) § 60.62(d)	After performance test required by §60.8 is completed, no owner or operator shall discharge into the atmosphere any kiln gases which exhibit greater than 20 percent opacity.	§ 60.64(a) § 60.64(b)(2)	None	§ 60.64(d)(1) § 60.64(d)(4)
GRPKILN1	EU	63LLL	112(B) HAPS	40 CFR Part 63, Subpart LLL	§ 63.1340(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart LLL	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart LLL	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart LLL	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart LLL	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart LLL

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPKILNC NV2	EU	60F	PM (Opacity)	40 CFR Part 60, Subpart F	§ 60.62(c) § 60.62(d)	On and after the date on which the performance test required to be conducted by §60.8 is completed, you may not discharge into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit 10 percent opacity, or greater.	§ 60.64(a) § 60.64(b)(2) § 60.64(b)(3) § 63.1350(f) [G]§ 63.1350(f)(1) § 63.1350(f)(3) § 63.1350(m) § 63.1350(m)(1) § 63.1350(m)(2) § 63.1350(m)(3) § 63.1350(p) [G]§ 63.1350(p)(1) [G]§ 63.1350(p)(2) § 63.1350(p)(3) § 63.1350(p)(4)	§ 63.1350(m)(3) § 63.1350(m)(4) § 63.1350(p)	§ 60.64(d)(1) § 60.64(d)(4)
GRPVENT1	EP	R111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(A) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 30% averaged over a six minute period.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
GRPVENT2	EP	R111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
GRPWCG2	EU	60F	PM (Opacity)	40 CFR Part 60, Subpart F	§ 60.62(c) § 60.62(d)	On and after the date on which the performance test required to be conducted by §60.8 is completed, you may not discharge into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit 10 percent opacity, or greater.	§ 60.64(a) § 60.64(b)(2) § 60.64(b)(3) § 63.1350(f) [G]§ 63.1350(f)(1) [G]§ 63.1350(f)(2) § 63.1350(f)(3) § 63.1350(m) § 63.1350(m)(1) § 63.1350(m)(2)	§ 63.1350(m)(3) § 63.1350(m)(4) § 63.1350(p)	§ 60.64(d)(1) § 60.64(d)(4)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
							§ 63.1350(m)(3) § 63.1350(p) [G]§ 63.1350(p)(1) [G]§ 63.1350(p)(2) § 63.1350(p)(3) § 63.1350(p)(4)		
GRPWCGCNV2	EU	60F	PM (Opacity)	40 CFR Part 60, Subpart F	§ 60.62(c) § 60.62(d)	On and after the date on which the performance test required to be conducted by §60.8 is completed, you may not discharge into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit 10 percent opacity, or greater.	§ 60.64(a) § 60.64(b)(2) § 60.64(b)(3) § 63.1350(f) [G]§ 63.1350(f)(1) § 63.1350(f)(3) § 63.1350(m) § 63.1350(m)(1) § 63.1350(m)(2) § 63.1350(m)(3) § 63.1350(p) [G]§ 63.1350(p)(1) [G]§ 63.1350(p)(2) § 63.1350(p)(3) § 63.1350(p)(4)	§ 63.1350(m)(3) § 63.1350(m)(4) § 63.1350(p)	§ 60.64(d)(1) § 60.64(d)(4)
GRPWCP2	EU	60F	PM (Opacity)	40 CFR Part 60, Subpart F	§ 60.62(c) § 60.62(d)	On and after the date on which the performance test required to be conducted by §60.8 is completed, you may not discharge into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit 10 percent opacity, or greater.	§ 60.64(a) § 60.64(b)(2) § 60.64(b)(3) § 63.1350(f) [G]§ 63.1350(f)(1) § 63.1350(f)(3) § 63.1350(m) § 63.1350(m)(1) § 63.1350(m)(2) § 63.1350(m)(3) § 63.1350(p) [G]§ 63.1350(p)(1) [G]§ 63.1350(p)(2) § 63.1350(p)(3) § 63.1350(p)(4)	§ 63.1350(m)(3) § 63.1350(m)(4) § 63.1350(p)	§ 60.64(d)(1) § 60.64(d)(4)
GRPWCS2	EU	60F	PM (Opacity)	40 CFR Part 60, Subpart F	§ 60.62(c) § 60.62(d)	On and after the date on which the performance test	§ 60.64(a) § 60.64(b)(2)	§ 63.1350(m)(3) § 63.1350(m)(4)	§ 60.64(d)(1) § 60.64(d)(4)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						required to be conducted by §60.8 is completed, you may not discharge into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit 10 percent opacity, or greater.	§ 60.64(b)(3) § 63.1350(f) [G]§ 63.1350(f)(1) § 63.1350(f)(3) § 63.1350(m) § 63.1350(m)(1) § 63.1350(m)(2) § 63.1350(m)(3) § 63.1350(p) [G]§ 63.1350(p)(1) [G]§ 63.1350(p)(2) § 63.1350(p)(3) § 63.1350(p)(4)	§ 63.1350(p)	
GRPWSCN V2	EU	60F	PM (Opacity)	40 CFR Part 60, Subpart F	§ 60.62(c) § 60.62(d)	On and after the date on which the performance test required to be conducted by §60.8 is completed, you may not discharge into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit 10 percent opacity, or greater.	§ 60.64(a) § 60.64(b)(2) § 60.64(b)(3) § 63.1350(f) [G]§ 63.1350(f)(1) § 63.1350(f)(3) § 63.1350(m) § 63.1350(m)(1) § 63.1350(m)(2) § 63.1350(m)(3) § 63.1350(p) [G]§ 63.1350(p)(1) [G]§ 63.1350(p)(2) § 63.1350(p)(3) § 63.1350(p)(4)	§ 63.1350(m)(3) § 63.1350(m)(4) § 63.1350(p)	§ 60.64(d)(1) § 60.64(d)(4)
Q-DRYER	EU	60F	PM	40 CFR Part 60, Subpart F	§ 60.62(b)(1)(iii) § 60.62(b) § 60.62(b)(1) § 60.62(d) [G]§ 60.63(b)(1)	On and after the date on which the performance test required to be conducted by §60.8 is completed, you may not discharge into the atmosphere from any clinker cooler any gases which contain PM in excess of 0.10 lb per ton of feed (dry basis) for clinker	§ 60.63(b) [G]§ 60.63(b)(1) § 60.63(b)(2) [G]§ 60.63(i) § 60.64(a) § 60.64(b)(1)	§ 60.63(b)(2) § 60.63(b)(3) [G]§ 60.63(i)	[G]§ 60.63(i) § 60.64(d)(1) § 60.64(d)(3) § 60.64(d)(4)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						coolers constructed, reconstructed, or modified after August 17, 1971, but on or before June 16, 2008.			
Q-DRYER	EU	60F	PM (Opacity)	40 CFR Part 60, Subpart F	§ 60.62(b)(1)(iv) § 60.62(b) § 60.62(b)(1) § 60.62(d)	On and after the date on which the performance test required to be conducted by §60.8 is completed, you may not discharge any gases which contain PM in excess of 10 percent opacity for clinker coolers constructed, reconstructed, or modified after August 17, 1971, but on or before June 16, 2008, except that this opacity limit does not apply to any clinker cooler subject to a PM limit in paragraph (b)(1) of this section that uses a PM continuous parametric monitoring system (CPMS).	§ 60.64(a) § 60.64(b)(2) § 60.64(b)(3) § 63.1350(f) [G]§ 63.1350(f)(1) § 63.1350(f)(3) § 63.1350(m) § 63.1350(m)(1) § 63.1350(m)(2) § 63.1350(m)(3) § 63.1350(p) [G]§ 63.1350(p)(1) [G]§ 63.1350(p)(2) § 63.1350(p)(3) § 63.1350(p)(4)	§ 63.1350(m)(3) § 63.1350(m)(4) § 63.1350(p)	§ 60.64(d)(1) § 60.64(d)(3) § 60.64(d)(4)

Additional Monitoring Requirements

CAM Summary

Unit/Group/Process Information	
ID No.: GRPKILN1	
Control Device ID No.: KBH	Control Device Type: Fabric filter
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Nonagricultural Processes	SOP Index No.: R1151
Pollutant: PM	Main Standard: § 111.151(a)
Monitoring Information	
Indicator: Site-specific parametric operating limit which demonstrates compliance with a particulate matter limit equal to or less than 0.07 lb/ton of clinker produced.	
Minimum Frequency: four times per hour	
Averaging Period: 30 days	
Deviation Limit: The maximum signal is currently established as 4.192 mA. This maximum signal value is subject to change with each compliance test conducted (minimum annually) and in accordance with the requirements of 40 CFR 60.63(c) and 40 CFR Part 63.1349(b).	
CAM Text: Each monitoring device shall be installed, operated, calibrated, and maintained in a manner consistent with 40 CFR Part 60, Appendix F, procedure 2 (P2) to ensure their accuracy. A daily systems optics check will be conducted once every 24 hours to ensure the system has not been altered by the conditions of optical components, such as fogging of the lens and performance of light monitoring devices. The PM CPMS shall also be checked daily for indication that the system is responding pursuant to 40 CFR §63.8(c)(6) in conjunction with the daily systems optics check. A quarterly Absolute Correlation Audit (ACA) shall be conducted whereby the PM CPMS is challenged with audit standards (3) non-consecutive times at each measurement point. An Operating Limit Reassessment and Adjustment shall be conducted annually whereby the PM CPMS site-specific operating limit is reassessed and adjusted and accurately correlates to the PM emissions data collected using an EPA test method.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRPVENT1	
Control Device ID No.: FDC-16	Control Device Type: Fabric filter
Control Device ID No.: FDC-2	Control Device Type: Fabric filter
Control Device ID No.: PDC-1	Control Device Type: Fabric filter
Control Device ID No.: SDC-1	Control Device Type: Fabric filter
Control Device ID No.: SDC-2	Control Device Type: Fabric filter
Control Device ID No.: SDC-3	Control Device Type: Fabric filter
Control Device ID No.: SDC-4	Control Device Type: Fabric filter
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R111
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(A)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: N/A	
Deviation Limit: Visible emissions or if opacity exceeds 30% averaged over a six-minute period if a Test Method 9 is performed.	
Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRPVENT2	
Control Device ID No.: CDC-1	Control Device Type: Fabric filter
Control Device ID No.: CDC-2	Control Device Type: Fabric filter
Control Device ID No.: CDC-3	Control Device Type: Fabric filter
Control Device ID No.: CDC-4	Control Device Type: Fabric filter
Control Device ID No.: ESP-1	Control Device Type: Wet or dry electrostatic precipitator
Control Device ID No.: FDC-1A	Control Device Type: Fabric filter
Control Device ID No.: FDC-3	Control Device Type: Fabric filter
Control Device ID No.: FDC-4	Control Device Type: Fabric filter
Control Device ID No.: IDC-3	Control Device Type: Fabric filter
Control Device ID No.: KBH	Control Device Type: Fabric filter
Control Device ID No.: KDC-4	Control Device Type: Fabric filter
Control Device ID No.: PDC-2	Control Device Type: Fabric filter
Control Device ID No.: RDC-1	Control Device Type: Fabric filter
Control Device ID No.: RDC-2	Control Device Type: Fabric filter
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R111
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(B)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: N/A	
Deviation Limit: Visible emissions or if opacity exceeds 20% averaged over a six-minute period if a Test Method 9 is performed.	
Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.	

Permit Shield

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit / Group / Process ID No.	Group / Inclusive Units	Regulation	Basis of Determination
AH-1	N/A	40 CFR Part 63, Subpart DDDDD	The facility is not a major source of HAPs.
CBC 1-3	N/A	40 CFR Part 60, Subpart F	The emission units are related to petcoke fuel handling and are not an affected source per §60.60(a).
CBC 1-3	N/A	40 CFR Part 60, Subpart Y	The facility does not handle coal preparation and processing.
GRPCCS	CC-1, CDC-1	40 CFR Part 60, Subpart F	The emission units are related to petcoke fuel handling and are not an affected source per §60.60(a).
GRPCCS	CC-1, CDC-1	40 CFR Part 60, Subpart Y	The facility does not handle coal preparation and processing.
GRPCS	01012	40 CFR Part 60, Subpart F	The emission units are related to petcoke fuel handling and are not an affected source per §60.60(a).
GRPCS	01012	40 CFR Part 60, Subpart Y	The facility does not handle coal preparation and processing.
GRPCSS	CDC-3, CDC-4, CSB-1, FCS-1, FCS-2	40 CFR Part 60, Subpart F	The emission units are related to petcoke fuel handling and are not an affected source per §60.60(a).
GRPCSS	CDC-3, CDC-4, CSB-1, FCS-1, FCS-2	40 CFR Part 60, Subpart Y	The facility does not handle coal preparation and processing.
GRPCSV	CDC-2, CM-1, CWF-1	40 CFR Part 60, Subpart F	The emission units are related to petcoke fuel handling and are not an affected source per §60.60(a).
GRPCSV	CDC-2, CM-1, CWF-1	40 CFR Part 60, Subpart Y	The facility does not handle coal preparation and processing.

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit / Group / Process ID No.	Group / Inclusive Units	Regulation	Basis of Determination
GRPFOST	AMMONTK, DIESELTK, TANK-1, TANK-1 VENT, UOILTK	40 CFR Part 60, Subpart K	Constructed, modified, or reconstructed before 06/11/1973.
GRPFOST1	GASTNK, TANK-2, TANK-2 VENT	40 CFR Part 60, Subpart K	Constructed, modified, or reconstructed before 06/11/1973.
GRPFOST2	TANK-3, TANK-3 VENT	40 CFR Part 60, Subpart K	Constructed, modified, or reconstructed before 06/11/1973.
GRPKILNCNV	KBE-1, KBE-4, KCD-1, KCD-2	40 CFR Part 60, Subpart F	Facility constructed or modified before 08/17/1971.
GRPWCBL	BLT 1-4, RAILCARS, SCP-1, SDC-3, SDC-4, TRUCKS	40 CFR Part 60, Subpart F	Facility constructed or modified before 08/17/1971.
GRPWCG	FBM-1, FDC-2, FHM-1	40 CFR Part 60, Subpart F	Facility constructed or modified before 08/17/1971.
GRPWCPCNV	BSB 1,2, PBE 1,2, PDC-1, SS 5,6,9,10	40 CFR Part 60, Subpart F	Facility constructed or modified before 08/17/1971.
GRPWCS	CS 2-16, FDC-6, FFS-19, SDC-1, SDC-2	40 CFR Part 60, Subpart F	Facility constructed or modified before 08/17/1971.
GRPWCSCNV	FPP-1, SSC 1-4	40 CFR Part 60, Subpart F	Facility constructed or modified before 08/17/1971.
GRPWCSS	CS 20-24	40 CFR Part 60, Subpart F	Facility constructed or modified before 08/17/1971.
GRPWSCNV	LBC-4, LBC-5, LLH-1, LLH-2, MBC-1, MBC-2, RSC-1	40 CFR Part 60, Subpart F	Facility constructed or modified before 08/17/1971.
GRPWSG	CWM-1, RBM-1	40 CFR Part 60, Subpart F	Facility constructed or modified before 08/17/1971.
GRPWSS	P-62	40 CFR Part 60, Subpart F	Facility constructed or modified before

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit / Group / Process ID No.	Group / Inclusive Units	Regulation	Basis of Determination
			08/17/1971.
GRPWVT	P-91	40 CFR Part 60, Subpart F	Emission units are classified as road emission sources and not an affected source under this rule.

New Source Review Authorization References

New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX624	Issuance Date: 09/03/2025
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 9399	Issuance Date: 09/03/2025
Authorization No.: 49057	Issuance Date: 02/22/2019
Authorization No.: 103476	Issuance Date: 07/08/2021
Authorization No.: 157192	Issuance Date: 07/09/2019
Authorization No.: 160626	Issuance Date: 11/16/2021
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.144	Version No./Date: 09/04/2000
Number: 106.183	Version No./Date: 09/04/2000
Number: 106.227	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.265	Version No./Date: 09/04/2000
Number: 106.454	Version No./Date: 11/01/2001
Number: 106.511	Version No./Date: 09/04/2000
Number: 106.532	Version No./Date: 09/04/2000

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization**
01012	COKE STORAGE STOCKPILE AREAS	9399, PSDTX624
033 VENT	DUST COLLECTOR RDC-1 VENT	106.261/11/01/2003 [70830]
057 VENT	DUST COLLECTOR RDC-2 VENT	106.261/11/01/2003 [70830]
27	AIR SEPARATOR EXHAUST VENT	49057
28	HERCULES MILL DUST COLLECTOR VENT	49057
31	PACKHOUSE CEMENT TRANSFER SYSTEM DUST COLLECTOR VE	49057
32	SILOS SOUTH DUST COLLECTOR VENT	49057
33	SILOS NORTH DUST COLLECTOR VENT	49057
34	BULK TANK TOP DUST COLLECTOR VENT	49057
36	CLINKER STORAGE SILOS VENT	9399, PSDTX624
37	BULK TANK BOTTOM DUST COLLECTOR VENT	49057
38	FRINGE BIN DUST COLLECTOR VENT	49057
39WP-K	KILN STACK	9399, 157192, 160626, PSDTX624
51WP-CC	QUENCHER DRYER ESP STACK	9399, PSDTX624
60WP-CCT	COKER CRUSHER DUST COLLECTOR VENT	9399, PSDTX624
61WP-CSV	COKE SURGE BIN AND FEEDER DUST COLLECTOR VENT	9399, PSDTX624
65	COKE CONVEYOR SYSTEM TRANSFER POINTS VENT	9399, PSDTX624
69	CLINKER CONVEYOR SYSTEM VENT	9399, PSDTX624
70	RETURN SCREW CONVEYOR DUST COLLECTOR VEN	106.261/11/01/2003 [70830]
77	FLEXICOKE SILO DUST COLLECTOR VENT	9399, PSDTX624
AH-1	PETROLEUM COKE MILL AIR HEATER	9399, PSDTX624, 106.183/09/04/2000

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization**
AMMONTK	AMMONIA TANK VESSEL MAINTENANCE	9399, PSDTX624
BLT 1-4	RAIL/TRUCK LOADOUT BIN SYSTEM	49057
BSB 1,2	SURGE BIN FOR ROTARY PACKER SYSTEM	49057
CBC 1-3	COKE CONVEYOR SYSTEM	9399, PSDTX624
CC-1	PRIMARY COKE CRUSHER SYSTEM	9399, PSDTX624
CDC-1	COKE CRUSHER DUST COLLECTOR	9399, PSDTX624
CDC-2	COKE SURGE BIN AND FEEDER DUST COLLECTOR	9399, PSDTX624
CDC-3	FLEXICOKE SILO DUST COLLECTOR	9399, PSDTX624
CDC-4	C-SILO FLEXICOKE STORAGE #2 DUST COLLECTOR	9399, PSDTX624
CDC-4 VENT	C-SILO FLEXICOKE STORAGE #2 DUST COLLECTOR VENT	106.261/11/01/2003 [50092]
CM-1	PETROLEUM COKE MILL	9399, PSDTX624
CS 2-16	CEMENT STORAGE SILO SYSTEM	49057
CS 20-24	CLINKER STORAGE SILO SYSTEM	9399, PSDTX624
CSB-1	COKE STORAGE SURGE BIN	9399, PSDTX624
CWF-1	COKE WEIGH FEEDER	9399, PSDTX624
CWM	CLAY WASH MILL EMISSIONS	49057
CWM-1	CLAY WASH MILL	49057
DIESELTK	DIESEL TANK VESSEL MAINTENANCE	9399, PSDTX624
E1	EMERGENCY ENGINE	106.511/09/04/2000
F-41	MATERIAL HANDLING CONVEYOR FUGITIVE EMISSIONS	49057
F-42	RAW MATERIAL BUILDING VENTS	49057

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization**
F-45	FINISH MILL ROOF VENTS	49057
F-47	RAW MATERIAL HANDLING FUGITIVE EMISSIONS	49057
F-48	WHITE VEHICLE TRAFFIC	49057
F-62	COKE STORAGE STOCKPILE FUGITIVES	9399, PSDTX624
FBM-1	BALL MILL	49057
FCC-1	FINISH MILL CEMENT COOLER	49057
FCS-1	FLEXICOKE STORAGE SILO	9399, PSDTX624
FCS-2	C-SILO FLEXICOKE STORAGE #2	106.261/11/01/2003 [50092]
FDC-1A	AIR SEPARATOR EXHAUST DUST COLLECTOR	49057
FDC-2	HERCULES MILL DUST COLLECTOR	49057
FDC-3	CLINKER TRANSFER CONVEYORS DUST COLLECTOR	106.261/11/01/2003 [70830]
FDC-3 VENT	DUST COLLECTOR FDC-3 VENT	106.261/11/01/2003 [70830]
FDC-4	CLINKER TRANSFER CONVEYORS DUST COLLECTOR	106.261/11/01/2003 [70830]
FDC-4 VENT	DUST COLLECTOR FDC-4 VENT	106.261/11/01/2003 [70830]
FDC-6	FRINGE BIN DUST COLLECTOR	49057
FFS-19	CEMENT SILOS FRINGE BIN	49057
FHM-1	HERCULES MILL	49057
FPP-1	CEMENT TRANSFER PNEUMATIC CONVEYOR SYSTEM	49057
GASTNK	GASOLINE TANK VESSEL MAINTENANCE	9399, PSDTX624
ICS	IMPORT CEMENT STORAGE SILO	106.144/09/04/2000 [72008]
ICU	IMPORT CEMENT UNLOADING SYSTEM	106.144/09/04/2000 [72008]

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization**
IDC-1	IMPORT CEMENT UNLOADING SYSTEM DUST COLLECTOR	106.144/09/04/2000 [72008]
IDC-1 VENT	IMPORT CEMENT UNLOADING SYSTEM DUST COLLECTOR VENT	106.144/09/04/2000 [72008]
IDC-3	IMPORT CEMENT STORAGE SILO DUST COLLECTOR	106.144/09/04/2000 [72008]
IDC-3 VENT	IMPORT CEMENT STORAGE SILO DUST COLLECTOR VENT	106.144/09/04/2000 [72008]
KBE-1	CLINKER BUCKET ELEVATOR 1	9399, PSDTX624
KBE-4	CLINKER BUCKET ELEVATOR 4	9399, PSDTX624
KBH	HIGH EFFICIENCY DUST COLLECTOR	9399, PSDTX624
KCD-1	CLINKER BELT CONVEYOR 1	9399, PSDTX624
KCD-2	CLINKER BELT CONVEYOR 2	9399, PSDTX624
KCD-4	KILN DUST RETURN SCREW CONVEYOR DUST COLLECTOR	106.261/11/01/2003 [70830]
KDS	KILN DUST RETURN SCREW CONVEYOR	106.261/11/01/2003 [70830]
KILN-1	WHITE KILN BURNER	9399, PSDTX624
KPH-1	KILN AIR PREHEATER	9399, PSDTX624
KPH-1 VENT	KILN AIR PREHEATER VENT	9399, PSDTX624
LBC-4	RAW MATERIAL CONVEYOR LBC-4	49057
LBC-5	RAW MATERIAL CONVEYOR LBC-5	49057
LLH-1	RAW MATERIAL CONVEYOR FEED HOPPER LLH-1	49057
LLH-2	RAW MATERIAL CONVEYOR FEED HOPPER LLH-2	49057
MBC-1	RAW MATERIAL BELT CONVEYOR 1	49057
MBC-2	RAW MATERIAL BELT CONVEYOR 2	49057
NH3FUG	AMMONIA FUGITIVES	157192

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization**
P-62	RAW MATERIAL OPEN STORAGE PILE AREAS	49057
P-91	WHITE VEHICLE TRAFFIC	49057
PACKER	ROTARY PACKER	106.261/09/04/2000 [70901]
PACKERVENT	PACKER DUCT COLLECTOR VENT	106.261/09/04/2000 [70901]
PBE 1,2	CEMENT TRANSFER BUCK ELEVATOR SYSTEM	49057
PDC-1	PACKHOUSE CEMENT TRANSFER SYSTEM DUST COLLECTOR	49057
PDC-2	PACKER DUST COLLECTOR	106.261/09/04/2000 [70901]
Q-DRYER	WHITE KILN CLINKER QUENCHER DRYER	9399, PSDTX624
RAILCARS	RAILCAR LOADOUT SYSTEM	49057
RBM-1	BALL MILL FOR TAW MATERIAL GRINDING	49057
RDC-1	RAW MATERIAL CONVEYORS DUST COLLECTOR	106.261/11/01/2003 [70830]
RDC-2	RAW MATERIAL CONVEYORS DUST COLLECTOR	106.261/11/01/2003 [70830]
RSC-1	RAW MATERIAL FED BELT CONVEYOR	49057
SCP-1	BULK CEMENT LOADING PNEUMATIC TRANSFER SYSTEM	49057
SDC-1	SILOS SOUTH DUST COLLECTOR	49057
SDC-2	SILOS NORTH DUST COLLECTOR	49057
SDC-3	BULK TANK TOP DUST COLLECTOR	49057
SDC-4	BULK TANK BOTTOM DUST COLLECTOR	49057
SEP-1	FINISH MILL AIR SEPARATOR	49057
SS 5,6,9,10	CEMENT TRANSFER SCREW CONVEYOR SYSTEM	49057
SSC 1-4	CEMENT TRANSFER SCREW CONVEYOR SYSTEM	49057

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization**
TANK-1	GASOLINE STORAGE TANK	49057
TANK-1 VENT	GASOLINE STORAGE TANK VENT	49057
TANK-2	DIESEL OIL STORAGE TANK	49057
TANK-2 VENT	DIESEL OIL STORAGE TANK VENT	49057
TANK-3	FUEL OIL STORAGE TANK	49057
TANK-3 VENT	FUEL OIL STORAGE TANK VENT	49057
TRUCKS	BULK TRUCK LOADOUT SYSTEM	49057
UOILTK	USED OIL TANK VESSEL MAINTENANCE	9399, PSDTX624

**This column may include Permit by Rule (PBR) numbers and version dates, PBR Registration numbers in brackets, Standard Permit Registration numbers, Minor NSR permit numbers, and Major NSR permit numbers.

Appendix A

Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM ..... actual cubic feet per minute
AMOC ..... alternate means of control
ARP ..... Acid Rain Program
ASTM ..... American Society of Testing and Materials
B/PA ..... Beaumont/Port Arthur (nonattainment area)
CAM ..... Compliance Assurance Monitoring
CD ..... control device
CEMS ..... continuous emissions monitoring system
CFR ..... Code of Federal Regulations
COMS ..... continuous opacity monitoring system
CVS ..... closed vent system
D/FW ..... Dallas/Fort Worth (nonattainment area)
EP ..... emission point
EPA ..... U.S. Environmental Protection Agency
EU ..... emission unit
FCAA Amendments ..... Federal Clean Air Act Amendments
FOP ..... federal operating permit
gr/100 scf ..... grains per 100 standard cubic feet
HAP ..... hazardous air pollutant
H/G/B ..... Houston/Galveston/Brazoria (nonattainment area)
H_2S ..... hydrogen sulfide
ID No. ..... identification number
lb/hr ..... pound(s) per hour
MACT ..... Maximum Achievable Control Technology (40 CFR Part 63)
MMBtu/hr ..... Million British thermal units per hour
NA ..... nonattainment
N/A ..... not applicable
NADB ..... National Allowance Data Base
NESHAP ..... National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
NO_x ..... nitrogen oxides
NSPS ..... New Source Performance Standard (40 CFR Part 60)
NSR ..... New Source Review
ORIS ..... Office of Regulatory Information Systems
Pb ..... lead
PBR ..... Permit By Rule
PEMS ..... predictive emissions monitoring system
PM ..... particulate matter
ppmv ..... parts per million by volume
PRO ..... process unit
PSD ..... prevention of significant deterioration
psia ..... pounds per square inch absolute
RO ..... Responsible Official
SIP ..... state implementation plan
SO_2 ..... sulfur dioxide
TCEQ ..... Texas Commission on Environmental Quality
TSP ..... total suspended particulate
TVP ..... true vapor pressure
U.S.C. ..... United States Code
VOC ..... volatile organic compound

Appendix B

Major NSR Summary Table

Permit Numbers 9399 and PSDTX624					Issuance Date: September 3, 2025		
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY (4)**	**Special Condition/Application Information**	**Special Condition/Application Information**	**Special Condition/Application Information**
39WP-K	Kiln	PM	57.0	226.0	16, 17, 19, 22, 25, 38	16, 17, 19, 20, 29, 30, 31, 32, 33, 35, 37	16, 17, 28
		PM_{10}	51.3	220.0			
		VOC	9.0	38.0			
		NO_x (6)	135.3	592.6			
		SO_2	645.0	1700.0			
		CO	75.0	329.0			
		HCl	2.27	9.95			
		H_2SO_4	25.0	110.0			
60WP-CCT	Coke Conveyor Dust Collector Vent	PM	0.16	0.71	3	3, 16	
		PM_{10}	0.16	0.71			
61WP-CSV	Coke Silo Dust Collector Vent	PM	0.1	0.44	3	3, 16	
		PM_{10}	0.1	0.44			
77	Flexi-Coke Silo Vent	PM	0.2	0.8	3	3, 16	
		PM_{10}	0.1	0.4			
51WP-CC	Clinker Cooler ESP Stack	PM	4.2	16.6	3	3, 16	
		PM_{10}	2.1	8.3			

Major NSR Summary Table

Permit Numbers 9399 and PSDTX624					Issuance Date: September 3, 2025		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
F-62	Coke Storage Areas (7)	PM	--	4.3	3	3, 16	
MSSFUG1	Inherently Low Emitting (ILE) Sitewide Planned Maintenance Activities	NO_x	<0.01	<0.01	14	13,16	
		CO	0.12	<0.01			
		SO_2	<0.01	<0.01			
		PM	0.79	0.66			
		PM_{10}	0.44	0.39			
		$PM_{2.5}$	0.13	0.11			
		VOC	0.05	<0.01			

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
HCl - hydrogen chloride
H_2SO_4 - sulfuric acid
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Planned maintenance, startup, and shutdown emissions are included.
(6) Compliance will be based on a 30-day rolling average.
(7) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Texas Commission on Environmental Quality
Air Quality Permit

A Permit Is Hereby Issued To
Lehigh White Cement Company, LLC
Authorizing the Construction and Operation of
Portland Cement Plant
Located at **Woodway, McLennan County, Texas**
Latitude 31.481388 Longitude -97.242222

Permits: 9399 and PSDTX624

Revision Date: September 3, 2025

Expiration Date: June 25, 2034

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)] [1]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]
6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and

operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]

8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)] [1]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC § 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC § 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) § 382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit. [1]

[1] Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

Common Acronyms in Air Permits

°C = Temperature in degrees Celsius
°F = Temperature in degrees Fahrenheit
°K = Temperature in degrees Kelvin
µg = microgram
µg/m^3 = microgram per cubic meter
acfm = actual cubic feet per minute
AMOC = alternate means of control
AOS = alternative operating scenario
AP-42 = Air Pollutant Emission Factors, 5th edition
APD = Air Permits Division
API = American Petroleum Institute
APWL = air pollutant watch list
BPA = Beaumont/ Port Arthur
BACT = best available control technology
BAE = baseline actual emissions
bbl = barrel
bbl/day = barrel per day
bhp = brake horsepower
BMP = best management practices
Btu = British thermal unit
Btu/scf = British thermal unit per standard cubic foot or feet
CAA = Clean Air Act
CAM = compliance-assurance monitoring
CEMS = continuous emissions monitoring systems
cfm = cubic feet (per) minute
CFR = Code of Federal Regulations
CN = customer ID number
CNG = compressed natural gas
CO = carbon monoxide
COMS = continuous opacity monitoring system
CPMS = continuous parametric monitoring system
DFW = Dallas/ Fort Worth (Metroplex)
DE = destruction efficiency
DRE = destruction and removal efficiency
dscf = dry standard cubic foot or feet
dscfm = dry standard cubic foot or feet per minute
ED = (TCEQ) Executive Director
EF = emissions factor
EFR = external floating roof tank
EGU = electric generating unit
EI = Emissions Inventory
ELP = El Paso
EPA = (United States) Environmental Protection Agency
EPN = emission point number
ESL = effects screening level
ESP = electrostatic precipitator
FCAA = Federal Clean Air Act
FCCU = fluid catalytic cracking unit
FID = flame ionization detector
FIN = facility identification number
ft = foot or feet
ft/sec = foot or feet per second
g = gram
gal/wk = gallon per week
gal/yr = gallon per year
GLC = ground level concentration
GLC_{max} = maximum (predicted) ground-level concentration
gpm = gallon per minute
gr/1000scf = grain per 1000 standard cubic feet
gr/dscf = grain per dry standard cubic feet
H_2CO = formaldehyde
H_2S = hydrogen sulfide
H_2SO_4 = sulfuric acid
HAP = hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
HC = hydrocarbons
HCl = hydrochloric acid, hydrogen chloride
Hg = mercury
HGB = Houston/Galveston/Brazoria
hp = horsepower
hr = hour
IFR = internal floating roof tank
in H_2O = inches of water
in Hg = inches of mercury
IR = infrared
ISC3 = Industrial Source Complex, a dispersion model
ISCST3 = Industrial Source Complex Short-Term, a dispersion model
K = Kelvin; extension of the degree Celsius scaled-down to absolute zero
LACT = lease automatic custody transfer
LAER = lowest achievable emission rate
lb = pound
lb/day = pound per day
lb/hr = pound per hour
lb/MMBtu = pound per million British thermal units
LDAR = Leak Detection and Repair (Requirements)
LNG = liquefied natural gas
LPG = liquefied petroleum gas
LT/D = long ton per day
m = meter
m^3 = cubic meter
m/sec = meters per second
MACT = maximum achievable control technology
MAERT = Maximum Allowable Emission Rate Table
MERA = Modeling and Effects Review Applicability
mg = milligram
mg/g = milligram per gram
mL = milliliter
MMBtu = million British thermal units
MMBtu/hr = million British thermal units per hour
MSDS = material safety data sheet
MSS = maintenance, startup, and shutdown
MW = megawatt
NAAQS = National Ambient Air Quality Standards
NESHAP = National Emission Standards for Hazardous Air Pollutants
NGL = natural gas liquids
NNSR = nonattainment new source review
NO_x = total oxides of nitrogen
NSPS = New Source Performance Standards

PAL = plant-wide applicability limit
PBR = Permit(s) by Rule
PCP = pollution control project
PEMS = predictive emission monitoring system
PID = photo ionization detector
PM = periodic monitoring
PM = total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
$PM_{2.5}$ = particulate matter equal to or less than 2.5 microns in diameter
PM_{10} = total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
POC = products of combustion
ppb = parts per billion
ppm = parts per million
ppmv = parts per million (by) volume
psia = pounds (per) square inch, absolute
psig = pounds (per) square inch, gage
PTE = potential to emit
RA = relative accuracy
RATA = relative accuracy test audit
RM = reference method
RVP = Reid vapor pressure
scf = standard cubic foot or feet
scfm = standard cubic foot or feet (per) minute
SCR = selective catalytic reduction
SIL = significant impact levels
SNCR = selective non-catalytic reduction
SO_2 = sulfur dioxide
SOCMI = synthetic organic chemical manufacturing industry
SRU = sulfur recovery unit
TAC = Texas Administrative Code
TCAA = Texas Clean Air Act
TCEQ = Texas Commission on Environmental Quality
TD = Toxicology Division
TLV = threshold limit value
TMDL = total maximum daily load
tpd = tons per day
tpy = tons per year
TVP = true vapor pressure
VOC = volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
VRU = vapor recovery unit or system

Special Conditions

Permit Numbers 9399 and PSDTX624

Emission Standards and Operational Limitations

1. This permit covers only the emission sources and individual emission limits listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and those sources are limited to the emission limits specified in that table. In addition to the emissions from routine operations, this permit authorizes emissions from planned maintenance, startup, and shutdown (MSS) activities, and those emissions shall comply with the limits specified in the MAERT. Attachment A identifies the inherently low emitting (ILE) planned maintenance activities that are authorized by this permit. **(3/14)**

2. This permit authorizes the following facilities: kiln, coke conveyors, coke silos, clinker cooler, and coke storage areas.

3. The holder of this permit shall demonstrate that all hooding, duct, and collection systems are effective in capturing emissions from this equipment and preventing fugitive emissions from buildings.

4. Material collected by all air pollution abatement equipment that is not returned to the process shall be disposed of in such a manner that will prevent it from becoming airborne.

5. Water and/or dust suppressants shall be used on material storage and transfer operations, as necessary, to minimize dust emissions.

6. Clinker and coke transfer conveyors shall be at least partially enclosed and dust collectors shall be used at all transfer points to minimize dust emissions. The first transfer point of the petroleum coke conveyor system and the last transfer point of the clinker conveyor shall be enclosed, but not routed to a dust collector.

7. Railroad cars and trucks used in transporting cement, clinker, and coke shall be cleaned and maintained as necessary to minimize material loss.

8. Plant roads shall be paved and cleaned, and all unpaved roads shall be sprayed with water and/or chemical dust suppressants to minimize dust emissions.

9. Fuels fired in the kiln system shall be limited to the following:

   A. Natural Gas: Natural gas shall contain no more than 0.25 grain hydrogen sulfide and 5 grains total sulfur per 100 dry standard cubic feet.

   B. Petroleum Coke or "Flexicoke:" Petroleum coke or Flexicoke shall have a minimum heat of combustion of 10,000 Btu/lb, a maximum sulfur content of 6 percent by weight, and a maximum chlorine content of 500 mg/kg as fed to the kiln burner.

   C. Liquid Fuels:

      (1) Fuel Oil

      (2) Used Oil **(12/06)**

      The liquid fuels shall have a minimum heat of combustion of 5,000 British thermal units per pound (Btu/lb), a maximum sulfur content of 6 percent by weight, and a maximum chlorine content of 1,000 milligrams per kilogram (mg/kg). Liquid fuels may contribute

up to a maximum of 25 percent of the total design maximum heat input rate of the kiln burner.

The liquid fuels shall meet all requirements specified in 40 CFR Part 279.1, Standards for the Management of Used Oil, and not contain more than the indicated amounts of the substances listed below in parts per million by weight (ppm):

Table 1: Liquid fuel concentration limits

Substance	Concentration
Arsenic	5
Cadmium	2
Chromium	10
Lead	100
Total Halogen	4,000

D. Alternative Solid Fuels:

(1) Waste Plastics - Waste plastics shall have a minimum heat of combustion of 8,000 Btu/lb.

(2) Wood Chips - Wood chips shall have a minimum heat of combustion of 5,000 Btu/lb.

(3) Tire Fluff - Tire fluff shall have a minimum heat of combustion of 10,000 Btu/lb.

Alternative solid fuels shall have a maximum sulfur content of 3.5 lb/MMBtu and a maximum chlorine content of 0.05 lb/MMBtu. The combined alternative solid fuels may contribute up to a maximum of 25 percent of the total design maximum heat input rate of the kiln burner.

All fuels shall additionally meet the specifications represented in the permit applications dated February 2006, as amended in October 2006. **(12/06)**

10. Exhaust gases from the kiln shall be routed to a fabric filter system designed to achieve a minimum 98 percent capture efficiency of particulate matter. **(3/06)**

Planned Maintenance, Startup, and Shutdown

11. The holder of this permit shall minimize emissions during planned MSS activities by operating the facility and associated air pollution control equipment in accordance with good air pollution control practices, safe operating practices, and protection of the facility. **(3/14)**

12. Emissions during planned startup and shutdown activities of the kiln shall be minimized as follows: **(3/14)**

A. A planned startup of the kiln is defined as the period starting when the kiln's induced draft fan is turned on and fuel is fired in the main burner and ending when feed is being continuously introduced into the kiln for at least 120 minutes or when the feed rate exceeds 17 tons per hour, whichever occurs first.

B. A planned shutdown of the kiln is defined as the period starting when feed to the kiln is halted and ending when continuous kiln rotation ceases. A planned shutdown of the kiln is limited to 48 hours.

13. Compliance with the emissions limits for ILE planned maintenance activities identified in this permit (Attachment A) shall be demonstrated as follows. **(3/14)**

A. The total emissions from all ILE planned maintenance activities shall be considered to be no more than the estimated potential to emit for those activities that are represented in the MSS permit amendment application and subsequent associated submittals.

B. The permit holder shall annually confirm the continued validity of the estimated potential to emit as represented in the MSS permit amendment application and subsequent associated submittals.

14. Emissions from planned MSS activities authorized by this permit shall be determined by the use of an appropriate method, including but not limited to any of following methods: **(3/14)**

A. Use of a continuous emission monitoring system (CEMS). The CEMS shall be certified to measure the pollutant's emission over the entire range of a planned maintenance activity.

B. Use of emission factors, including but not limited to, facility-specific parameters, manufacturer's emission factors, and/or engineering knowledge of the facility's operations.

C. Use of emissions data measured (by a CEMS or during emissions testing) during the same type of planned MSS activity occurring at or on an identical or similar facility, and correlation of that data with the facility's relevant operating parameters, including but not limited to, temperature, fuel input, and fuel sulfur content.

D. Use of emissions testing data collected during a planned maintenance activity occurring at or on the facility, and correlation of that data with the facility's relevant operating parameters, including but not limited to, temperature, fuel input, and fuel sulfur content.

Sampling Requirements

15. Sampling ports and platform(s) shall be incorporated into the design of the stack according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities." Alternate sampling facility designs may be submitted for approval by the Texas Commission on Environmental Quality (TCEQ) Regional Director.

16. At the request of the TCEQ Executive Director, or designated representative, the holder of this permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from this facility. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.

A. The TCEQ Waco Regional Office shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting.

The notice shall include:

(1) Date for pretest meeting.

(2) Date sampling will occur.

(3) Name of firm conducting sampling.

(4) Type of sampling equipment to be used.

(5) Method or procedure to be used in sampling.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

A written proposed description of any deviation from sampling procedures specified in permit conditions or the TCEQ or the U.S. Environmental Protection Agency (EPA) sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

Requests to waive testing for any pollutant specified in B of this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate or equivalent procedure proposals for New Source Performance Standards (NSPS) testing which must have EPA approval shall be submitted to the EPA and copied to the TCEQ Air Permits Division in Austin.

B. Air contaminants emitted from the kiln to be tested for include (but are not limited to) total suspended particulate, particulate matter less than or equal to 10 microns, volatile organic compounds, nitrogen oxides (NO_x), sulfur dioxide (SO_2), sulfuric acid, dioxin/furan, hydrogen chloride (HCl), and carbon monoxide. The holder shall use the EPA Reference Methods, or appropriate alternate methods specified in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Appendix A.

C. Sampling shall occur within 90 days after the request for sampling is received from the Executive Director of the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office. Additional time to comply with the applicable requirements of 40 CFR Part 60 and 40 CFR Part 61 requires the EPA approval, and requests shall be submitted to the TCEQ Air Permits Division in Austin.

D. The kiln shall operate at maximum production rates during stack emission testing. Primary operating parameters that enable determination of production rate shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting. If the kiln is unable to operate at maximum rates during testing, then future kiln production rates may be limited to the rates established during testing. Additional stack testing may be required when higher production rates are achieved.

E. Two copies of the final sampling report shall be forwarded to the TCEQ within 60 days after sampling is completed. Sampling reports shall comply with the enclosed provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

(1) One copy to the TCEQ Waco Regional Office.

(2) One copy to the TCEQ Air Permits Division in Austin.

F. Additional sampling may be requested at the discretion of the TCEQ Executive Director.

Continuous Demonstration of Compliance

17. The holder of this permit shall install, calibrate, and maintain a CEMS or predictive emission monitoring system (PEMS) to determine the in-stack concentration of NO_x and SO_2 from the Kiln (Emission Point No. 39W-K).

    A. CEMS

        (1) The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division in Austin for requirements to be met.

        (2) The system shall be zeroed and spanned daily and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span are not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

        Each monitor shall be quality-assured at least quarterly using Cylinder Gas Audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1. An equivalent quality assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur no closer than two months. **(9/25)**

        All CGA exceedances of ±15 percent accuracy and any CEMS downtime in excess of 5 percent shall be reported to the appropriate TCEQ Regional Director, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.

        (3) The monitoring data shall be reduced to hourly average concentrations at least once every day, using a minimum of four equally-spaced data points from each one hour period. The individual average concentrations shall be reduced to units of the permit allowable emission rate in pound per hour at least once every week.

        (4) All monitoring data and quality-assurance data shall be maintained by the source for a period of two years and shall be made available to the TCEQ Executive Director or designated representative upon request. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit. The CEMS shall meet the design and performance specifications, testing requirements and data analysis, and reporting requirements of 40 CFR Part 60, Appendix B, unless alternative requirements are approved by the TCEQ for non-NSPS sources.

    B. PEMS

        (1) The PEMS must be based on measured parameters including (but not limited to) fuel flow, excess combustion air quantity, and/or other data that provides an accurate prediction of emissions that the TCEQ Regional Office approves.

        (2) The PEMS output as pounds of NO_x per hour will be averaged for each calendar hour and for the operating day. These results shall be recorded and maintained.

(3) The PEMS shall meet the requirements specified in Title 30 Texas Administrative Code § 117.213(f) [30 TAC § 117.213(f)] as applicable to the monitoring of NO_x emissions. For the purposes of compliance with the quarterly RATA specified in 30 TAC § 117.213(f), and for the purposes of this permit only, if operating time during a calendar quarter is less than 60 days, the owner or operator may delay the RATA until the next calendar quarter; however, the RATA must be performed within 90 facility operating days after the previous RATA was completed. A quarterly RATA may be omitted if the facility is inoperative for 90 or more successive days immediately preceding the report due date.

(4) The PEMS downtime summaries shall be submitted to the appropriate TCEQ Regional Director once each calendar quarter. If no downtime periods occur in excess of 5 percent, this shall be so stated in the quarterly summary. Necessary corrective action shall be taken for each PEMS downtime occurrence.

(5) Within 60 days after the PEMS is installed, a RATA shall be performed. Results of testing shall be submitted to the appropriate TCEQ Regional Office within 60 days after completion of the RATA. A results summary of all criteria testing performed pursuant to 30 TAC Chapter 117 shall be submitted within 60 days after completion of such tests.

(6) Following the three successive RATA referenced in paragraph (3) above, a RATA must be performed every six months pursuant to 40 CFR Part 60, Appendix B, Performance Specification 2, Subsection 4.3 (pertaining to NO_x). The RATA may be performed every 12 months if the relative accuracy during the previous audit for the NO_x monitor is less than or equal to 7.5 percent of the mean value of the reference method test data. Any RATA exceeding 20 percent or statistical test exceeding the applicable standard shall be reported to the appropriate TCEQ Regional Director. A single RATA may be performed when any required quarterly or semiannual or annual RATA occur concurrently.

C. For the demonstration of PEMS performance, the appropriate TCEQ Regional Office shall be notified at least 15 days prior to each RATA in order to provide them the opportunity to observe testing.

D. The holder of this permit shall perform automatic sensor validation at least daily on any PEMS installed under authority of this permit. The permittee shall develop and implement plans that will ensure proper functioning of the monitoring systems, ensure proper accuracy and calibration of all operational parameters that affect emissions and serve as input to the PEMS, and ensure continuous operation within the certified operating range.

E. A PEMS is required to provide valid emission predictions at least 95 percent of the time that the kiln being monitored is in operation.

F. The reporting requirements of 30 TAC § 117.219 may be substituted for the reporting requirements previously stated in this permit condition if the CEMS or PEMS is not subject to the requirements of 40 CFR Part 60 (NSPS).

18. The CEMS or PEMS required per Special Condition No. 17 shall be installed by December 31, 2003.

19. Each alternate solid (waste plastics, wood chips, and tire fluff) fuel shall undergo initial testing to verify that it meets the prescribed fuel specifications detailed in Special Condition No. 9 and the

representations made in the permit application prior to introducing the fuel into the kiln. The fuel shall be re-tested each time it is purchased from a new supplier. **(12/06)**

20. Annual documentation from an approved independent testing laboratory that lists the concentrations of the ingredients of the fuel specified in Special Condition No. 9C2 shall be kept on-site at all times when a used oil is used. **(12/06)**

21. Beginning on May 19, 2021 the facility shall continuously operate (as defined in Special Condition 26) a Selective Non-Catalytic Reduction (SNCR) pollution control system on the kiln. **(01/22)**

22. Beginning on June 18,2021 the facility shall comply with a 30-day rolling average emission limit (as defined in Special Condition 26) of 8.2 pounds of NO_x per ton of clinker. **(01/22)**

23. Periods during a Detached Plume Event are not subject to the requirements of Special Condition 21 (as defined in Special Condition 26, paragraph C) and shall not be included in 30-day rolling average calculations for Special Condition 22. In order to qualify for a Detached Plume Event (as defined in Special Condition 26, paragraph E) the permit holder must comply with all requirements of the Detached Plume Event Protocol (Attachment B). **(9/25)**

24. Beginning on November 19, 2021 the facility shall continuously operate (as defined in Special Condition 26) a lime injection system on the kiln. **(01/22)**

25. Beginning on December 19, 2021 the facility shall comply with a 30-day rolling average emission limit (as defined in Special Condition 26) of 7.5 pounds of SO_2 per ton of clinker. **(01/22)**

26. The following Definitions shall apply to terms in Special Conditions 21, 22, 23, 24, 25, and 35. **(9/25)**

    A. "30-day rolling average emission limit" shall mean the maximum allowable rate of emission of NO_x or SO_2 from the kiln and shall be expressed as pounds of NO_x or SO_2 per ton of clinker produced. Compliance with the 30-day rolling average emission limit shall be determined by calculating the 30-day rolling average emission rate and comparing that with the 30-day rolling average emission limit.

    B. "30-day rolling average emission rate" shall mean the rate of emission of NO_x or SO_2 expressed as pounds per ton of clinker produced and calculated in accordance with the following procedure:

        (1) Sum the total pounds of the pollutant emitted from the kiln during an operating day and the previous 29 operating days, as measured by the CEMS.

        (2) Sum the total tons of clinker produced by the kiln during the same operating day and previous 29 operating days.

        (3) Divide the total number of pounds of the pollutant emitted from the kiln during the thirty operating days referred to above by the total tons of clinker produced at the kiln during the same 30 operating days.

        (4) A new 30-day rolling average emission rate shall be calculated for each new operating day. Only emission data determined to be valid under 40 C.F.R. §60.13 or substituted data in accordance with Special Condition 36 shall be included. The total pounds of the pollutant emitted from the kiln during a specified period (operating day or 30-day

period) shall include all emissions of that pollutant from the kiln that occur during the specified period, including emissions during each malfunction.

C. "Continuously Operate" or "Continuous Operation" shall mean, except as provided below, that when a Control Technology is installed at a Kiln, it shall be operated at all times of Kiln Operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for such Control Technology and the Kiln, except during: (1) Malfunction of the Control Technology, (2) periods where the Kiln is operating below the minimum temperature required for operation of the Control Technology, as specified in writing by the manufacturer or installation contractor or (3) for Selective Non-Catalytic Reduction System operation, Detached Plume Events. Provided, however, wherever a Control Technology involves the injection or addition of reagent, then the reagent shall be injected or added as necessary to achieve the lb per ton clinker emissions limits referenced in these special conditions.

D. "Day" shall mean a calendar day unless expressly stated to be a Business Day;

E. "Detached Plume Event" shall mean a detached plume [as defined in the Detached Plume Event Protocol (Attachment B)] that meets the criteria set forth in the Detached Plume Event Protocol (Attachment B). (Date)

F. "Kiln Operation" shall mean any period when any raw materials are fed into the Kiln or any combustion is occurring in the Kiln or Calciner burners.

G. "Lime injection" or "lime injection system" shall mean a pollution control system that injects lime or another reagent that has been demonstrated as effective in reducing SO_2 emissions into the gas stream for the purpose of reducing SO_2 emissions.

H. "Malfunction" shall have the same meaning as defined in 40 C.F.R. §60.2.

I. "Operating Day" shall mean any day on which kiln operation has occurred.

J. "Selective Non-Catalytic Reduction" or "SNCR" shall mean a pollution control system that injects ammonia, monomethylamine, cyanuric acid, and/or urea into the gas stream without the use of a catalyst for the purpose of reducing NO_x emissions.

Recordkeeping and Reporting

27. The holder of this permit shall submit CEMS excess emission reports quarterly in accordance with the conditions of 40 CFR Part 60.7(c) or semiannually under 30 TAC § 117.219(d) if there is no applicable NSPS subpart. The excess emissions reports shall include all the information specified in 40 CFR § 60.7(c) or 30 TAC § 117.219 along with facility operation time, operating time based on usage of each fuel authorized by this permit, and a summary of all excess emissions by cause and monitor downtimes in excess of 5 percent. Actual emissions whose rates are in excess of the limitations specified in the maximum allowable emission rates table shall be considered excess emissions.

28. The holder of this permit shall keep records of operating hours, raw mix feed rate and water content, fuel type and usage rates, fuel sulfur content, clinker production rate and sampling and monitoring data, as necessary, to determine the hourly and annual emission rates. These emissions rates shall be based on stack testing and CEMS and PEMS data. The hourly emission rates shall be maintained on a quarterly basis and shall be made available to TCEQ representatives upon request. These records will be used to determine compliance with the

emission limits specified in the attached table entitled “Emission Sources - Maximum Allowable Emission Rates.” These records shall be kept current and maintained on a rolling five-year basis.

29. The holder of this permit shall keep records of the results of the fuels testing required by Special Condition No. 19 and shall additionally retain a copy of each fuel analysis provided by each fuel supplier. These records shall be maintained in a form suitable for inspection for a period of five years after collection and shall be made immediately available upon request to representatives of the TCEQ or any air pollution control agency with jurisdiction. **(3/06)**

30. The holder of this permit shall keep records of the report from the used oil supplier identifying total sulfur and content of other constituents to demonstrate compliance with Special Condition No. 20. These records shall be maintained in a form suitable for inspection for a period of five years after collection and shall be made immediately available upon request to representatives of the TCEQ or any air pollution control agency with jurisdiction. **(12/06)**

31. The holder of this permit shall maintain for the life of the permit a copy of the fuel specifications represented in the application dated February 2006, as amended October 2006. **(12/06)**

32. The holder of this permit shall maintain the following records at the plant site in a form suitable for inspection for a period of five years after collection and shall be made immediately available upon request to representatives of the TCEQ or any air pollution control agency with jurisdiction. **(3/14)**

    A. Records of planned startup and shutdown of the kilns to demonstrate compliance with Special Condition No. 12 and the MAERT, including the date, time, duration, and emissions associated with those activities.

    B. Records of ILE planned maintenance activities and validations to demonstrate compliance with Special Condition No. 13.

33. The table below lists the sources or activities that are authorized by Air Quality Standard Permit, by permits by rule (PBR) under Title 30 Texas Administrative Code (30 TAC) Chapter 106, or as De Minimis sources under 30 TAC 116.119. This list is not intended to be all inclusive and can be altered at the site without modifications to this permit. **(01/22)**

    Table 2: Standard Permit, PBR, and De Minimis authorization references

Source or Activity	Authorization
Applications of aqueous detergents, surfactants, and other cleaning solutions	De Minimis
Lab sampling and analysis	De Minimis
Manual applications of cleaning or stripping solutions or coatings	De Minimis
Office cleaning activities	De Minimis
Yard work and landscaping	De Minimis
Pesticides, insecticides, and fumigation	De Minimis
Inorganic chemical usage	De Minimis

Source or Activity	Authorization
Application of aerosol-propelled organic liquids using hand-held devices	De Minimis
Application of lubricants (including greases and oils) without aerosol propellants	De Minimis
Blast cleaning equipment using only water as the cleaning media	De Minimis
Comfort air conditioning systems or comfort ventilation systems	De Minimis
Brazing, soldering, and welding	PBR 106.227
Maintenance painting	PBR 106.263
Enclosed and outdoor dry abrasive blasting	PBR 106.263
Hand-held and equipment used for buffing, polishing, cutting, drilling, sanding, sawing, etc.	PBR 106.265
Solvent cleaning, parts degreaser	PBR 106.454
Emergency engines and portable small engines	PBR 106.511
Sludge management	PBR 106.532
Organic chemical usage for water treatment	PBR 106.532
Storage silos for pet coke, including flexicoke, and conveyance system	PBR Registration No. 83329
Pollution Control Project Standard Permit - SNCR	Standard Permit Registration No. 87611
Pollution Control Project Standard Permit - baghouse replacement	Standard Permit Registration No. 103476
Pollution Control Project Standard Permit – SNCR on Kiln 39	Standard Permit Registration No. 157192
Pollution Control Project Standard Permit – Dry sorbent injection system	Standard Permit Registration No. 160626

34. The facility shall determine and record the daily clinker production rates by either one of the two following methods: **(01/22)**

    A. Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates of the amount of clinker produced in tons of mass per hour. This system must be maintained within +/- 5 percent accuracy; or

    B. Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates of the amount of feed to the kiln in tons of mass per hour. This system must be maintained within +/- 5 percent accuracy. If the method specified in this paragraph (b) is used, the facility shall calculate the hourly clinker production rate using a kiln-specific feed-to-clinker ratio based on reconciled clinker production determined for accounting purposes and recorded feed rates. This ratio should be updated no less frequently than once per month. If this ratio changes at clinker reconciliation, the new ratio must be used going

forward, but shall not be applied retroactively to change clinker production rates previously estimated.

35. The CEMS shall be operated at all times during kiln operation (as defined by Special Condition 26) except during CEMS breakdowns, repairs, calibration checks, zero span adjustments, and any stack repairs that may require the removal and recalibration of the CEMS. **(01/22)**

36. The CEMS shall monitor and record the NO_x and SO_2 emission rates from the kiln stack in units of parts per million, pounds per hour, and pounds per ton of clinker produced. **(01/22)**

37. For the purpose of demonstration of compliance with lb/ton clinker emission limits of Special Conditions 22, and 25, all of the emissions of NO_x and SO_2 from the kiln shall be measured by CEMS. During any time when the CEMS is inoperable or otherwise not measuring emissions of NO_x and SO_2 from the kiln (except for periods described in Special Condition 23 for NO_x), the facility shall apply the missing data substitution procedures in 40 CFR Part 75, Subpart D. **(01/22)**

Date: September 3, 2025

Attachment A

Permit Numbers 9399 and PSDTX624

Inherently Low Emitting Maintenance Activities

Planned Maintenance Activity	VOC	NO_x	CO	PM	SO_2
Vacuum truck solids loading (pack house, street sweeper, separator, pack house sweepers)				x	
Vacuum truck solids unloading				x	
Material handling system maintenance				x	
Material handling system maintenance (air gun)				x	
Analyzer and CEMS calibration		x	x		x
Lube oil maintenance	x				
Refractory maintenance operations				x	
Deslagging/descaling maintenance operations		x	x	x	
Miscellaneous particulate filter maintenance				x	
Kiln particulate filter maintenance				x	

Date: August 12, 2014

Attachment B

Permit Numbers 9399 and PSDTX624

Detached Plume Event Protocol

Date: September 3, 2025

LEHIGH WHITE CEMENT

100 South Wickson Road, Woodway, TX 76712 (Waco)

Detached Plume Event Protocol

1.0 DETACHED PLUME EVENT PROTOCOL

Introduction

A Detached Plume Event Protocol (protocol) is a plan that allows changes in air pollution control equipment operation during detached plume events.

Lehigh White Waco is required to continuously operate a selective non-catalytic reduction (SNCR) system on the kiln and control NO_X emissions to 8.2 lbs NO_X/ton of clinker on a 30-day rolling average. A SNCR is a pollution control system which uses ammonia injection to reduce NO_X emissions.

A "detached plume" is a persistent, non-water, visible plume that forms at a distinct distance from the stack outlet. These "detached plumes" are typically caused by high ammonia or sulfur emissions in the stack gas. The Detached Plume Event Protocol is meant to document a set of procedures for determining and correcting a detached plume event. The protocol also includes procedures for a root cause analysis after an event.

The increased use of ammonia required to meet the lower NO_X emission limit greatly increases the probability of having detached plume events.

1.1 Detached Plume Event Protocol Steps

1.1.1 Step 1: Identification of Detached Plume

Step 1 of the protocol is the observation and identification of a detached plume. A detached plume is a persistent, non-water, visible plume that forms at a distinct distance from the stack outlet. The detached plume observation shall be made by a knowledgeable member of the plant staff. Once a detached plume has been observed the Process Foreman shall be notified and the subsequent steps of this protocol shall be followed.

Attachment **C** is the Detached Plume Form it shall be used to document the detached plume event.

1.1.2 Step 2: Backend Temperature Adjustments

Step 2 of the protocol is the adjustment of the stack gas temperature prior to the baghouse. After the detached plume has been observed and documented the Process Foreman shall adjust the baghouse inlet temperature to attempt to condense the ammonia vapor *in* the baghouse. Twenty (20) minutes after each adjustment observations shall be made to determine if the plume is still detached. If the plume is still detached further adjustments and observations shall be made. If no further adjustments are possible move to Step 3. The Step 2 process shall be the following:

1. Adjust stack gas temperature.
2. Wait 20 minutes.
3. Check if the plume is still detached.
4. If plume is still detached, go back to 1 and make more adjustments or move to Step 3.
5. If the plume is no longer detached, move to Step 5.

Step 2 shall be documented in Attachment C. Either hardcopies or electronic records of the stack gas temperature shall be recorded during the detached plume event.

1.1.3 Step 3: Ammonia Injection Adjustments

Step 3 of the protocol is the adjustment of the ammonia injection rate. If the ammonia injection rate is adjusted the alternative NOx emission limit listed in Section 1.5 shall apply.

The Process Foreman shall decease the ammonia injection rate in 25% increments of the current injection rate at which the detached plume was formed, to remove ammonia from the stack gas in an attempt to alleviate the detached plume. Twenty (20) minutes after each adjustment observations shall be made to determine if the plume is still detached. If the plume is still detached further adjustments and observations shall be made. If no further adjustments are possible move to Step 5. The Step 3 process shall be the following:

1. Decrease the ammonia injection rate to 75%, 50%, 25%, and 0% of the current injection rate at which the detached plume was formed.

2. Wait 20 minutes after each adjustment.

3. Check if the plume is still detached.

4. If plume is still detached, go back to 1 and decrease the injection rate if at 0% move to Step 4.

5. If the plume is no longer detached, move to Step 6.

Step 4 shall be documented in Attachment C. Either hardcopies or electronic records of the ammonia injection rate and NOx emissions shall be recorded during the detached plume event.

1.1.4 Step 4: Other Adjustments

Step 4 of the protocol is any further adjustments. If the detached plume is still visible after ammonia is no longer being injected further adjustments might be made in an attempt to stop the detached plume. The further adjustments might include changes to the backend temperature or other changes. The unit will remain in Step 4 until the plume dissipates. After the plume dissipates move to Step 5. The Step 4 process shall be the following:

1. Make adjustment.

2. Wait 20 minutes after each adjustment.

3. Check if the plume is still detached.

4. If no further adjustments can be made check every 20 minutes on plume status.

5. Once the plume is no longer detached move to Step 5.

Step 4 shall be documented in Attachment C. Either hardcopies or electronic records of the other adjustments shall be recorded during the detached plume event.

1.1.5 Step 5: Post Plume Adjustments

Step 6 of the protocol is post plume adjustments to return the kiln to normal operation. After the detached plume has dissipated the kiln shall be returned to normal operation. The Process Foreman shall increase the ammonia injection rate in 25% increments of the prior injection rate that was maintaining NO_X. emissions within limits, until the ammonia injection rate is back to a level that adequately controls the NOx emissions. Twenty (20) minutes after each adjustment observations shall be made to determine if a detached plume is formed. If a detached plume forms, then the ammonia injection rate shall be decreased

in 25% increments until the detached plume dissipates. The detached plume event ends when the ammonia injection system returns to normal operation. The Step 5 process shall be the following:

1. Increase ammonia injection rate in 25% increments until the ammonia injection rate is back to the pre-event injection rate.

2. Wait 20 minutes after each adjustment to make sure detached plume does not form.

3. Once ammonia injection rate is back to pre-event or normal operation levels, the detached plume event ends.

Step 5 shall be documented in Attachment C and the end time of the detached plume event shall be recorded.

1.2 Root Cause Analysis

1.2.1 Root Cause Analysis Documentation

Promptly after each Detached Plume Event, begin documenting a "Root Cause Analysis" for the Event. The analysis should include a review of the events prior to, during and after the Event, to identify the most likely cause of the Event.

The Root Cause Analysis will include:

i) The date of the Event;
ii) The duration of the Event;
iii) The calculated amount of excess NO_X emissions;
iv) A summary of all actions taken during and after the Event to mitigate the Detached Plume Event and comply with this protocol;
v) A summary of Lehigh White Waco's analysis of why the event occurred;
vi) Identification of all steps that can be taken to prevent a similar event from occurring in the future;
vii) Identification of which steps Lehigh White Waco contends are reasonable (weighing the predicted effectiveness of the measure at preventing recurrence versus its cost and difficulty of implementation) to implement and explain why;
viii) A proposed schedule for completion of each step that is recommended by Lehigh White Waco;
ix) Identification of the reason(s) why any step is not recommended to be undertaken;
x) A proposed schedule to implement the new operating procedures into the standard operating procedures of the kiln.

1.2.2 Root Cause Analysis Follow up

The Root Cause Analysis shall be submitted to the TCEQ within forty-five (45) days of a detached plume event as per Section 1.3.1.3.

If in the submitted analysis, Lehigh White Waco proposed implementing new steps that could be taken to prevent an event from occurring in the future, implementation of these steps shall begin within one hundred and twenty (120) days of TCEQ approval. Additional time can be granted with TCEQ approval.

If implementing the new steps requires revision of the protocol, the amended Site-Specific Detached Plume Event Protocol shall be submitted within one hundred and twenty (120) days of TCEQ approval of the proposed new steps.

1.3 Notification, Recordkeeping, and Reporting

1.3.1.1 Notifications and Timing

The following notifications shall be made for a detached plume event:

- The Lehigh White Waco Plant's Environmental manager shall be notified within one (1) day of a detached plume event and provided copies of the Detached Plume Form from Attachment C.

- The Texas Commission of Environmental Quality (TCEQ) shall be notified orally, electronically, or by facsimile transmission within three (3) business days of a detached plume event. This notification shall include when Lehigh White Waco first knew of the detached plume event disruption.

1.3.1.2 Recordkeeping

The following records shall be made for a detached plume event:

- A Detached Plume Form (Attachment C) shall be maintained for each detached plume event;

- Additional data including NO_X emission rate, ammonia injection rate, stack gas temperature, and clinker production shall be recorded electronically during each detached plume event.

1.3.1.3 Reporting

The following reports shall be made for a detached plume event:

- Lehigh White Waco within thirty (30) days of a detached plume event shall provide to TCEQ in writing documentation of the event, its duration, atmospheric conditions during the event, demonstration that the protocol was followed, and any other documentation showing the disruption was attributable to a detached plume event. Lehigh White Waco will also provide a statement as to whether, in its opinion, the detached plume event caused or contributed to an endangerment to public health, welfare, or the environment.

- Lehigh White Waco within forty-five (45) days of a detached plume event shall submit to the TCEQ a Root Cause Analysis containing the information outlined in Section 1.2.

1.4 Multiple Events at the Kiln in One Year

If more than seven (7) Detached Plume Events occur in a Calendar Year, Lehigh White Waco must propose steps to reduce the occurrence of Detached Plume Events at the Plant. This proposal must be submitted to the TCEQ for approval.

The proposal must be submitted to the TCEQ within thirty (30) Days of the conclusion of the 7th Detached Plume Event. It shall include the following concerning the proposed steps: design of system, schedule and procedures for installation or enhancement of system, as applicable, and standard operating procedures for the system.

1.5 Proposed Alternative NOx Emission Limit

Lehigh White Waco proposes to meet an alternative NO_X emission limit to be determined at a later time using the data gathered during detached plume events, if and when they occur.

Attachment C – Detached Plume Form

Detached Plume Event	Step 1: Observation of Plume			Event Start Time	Step 2: Temperature Adjustment		Step 3: Ammonia Inspection Adjustment					Step 4: Other Adjustments		Event End Time
	Date	Description of Detached Plume	Atmospheric Conditions		Description of Stack Temperature Adjustment	Plume Still Detached?	NH3 Injection at 100%	NH3 Injection at 75%	NH3 Injection at 50%	NH3 Injection at 25%	Plume Still Detached	Describe Other Steps to Stop Detached Plume	Plume Still Detached?	
1														
2														
3														
4														
5														
6														
7														
Example	3/24/2020	Detached Plume East of Plant	Sunny 90 F	15:00	Backend Temperature Adjustments Made	Yes	X	X			No	Note detached plume ceased in Step 4	No	22:00

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 9399 and PSDTX624

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (5)	
			lb/hour	TPY (4)
39WP-K	Kiln	PM	57.0	226.0
		PM_{10}	51.3	220.0
		VOC	9.0	38.0
		NO_x (6)	135.3	592.6
		SO_2	645.0	1700.0
		CO	75.0	329.0
		HCl	2.27	9.95
		H_2SO_4	25.0	110.0
60WP-CCT	Coke Conveyor Dust Collector Vent	PM	0.16	0.71
		PM_{10}	0.16	0.71
61WP-CSV	Coke Silo Dust Collector Vent	PM	0.1	0.44
		PM_{10}	0.1	0.44
77	Flexi-Coke Silo Vent	PM	0.2	0.8
		PM_{10}	0.1	0.4
51WP-CC	Clinker Cooler ESP Stack	PM	4.2	16.6
		PM_{10}	2.1	8.3
F-62	Coke Storage Areas (7)	PM	--	4.3
MSSFUG1	Inherently Low Emitting (ILE) Sitewide Planned Maintenance Activities	NO_x	<0.01	<0.01
		CO	0.12	<0.01
		SO_2	<0.01	<0.01
		PM	0.79	0.66
		PM_{10}	0.44	0.39
		$PM_{2.5}$	0.13	0.11
		VOC	0.05	<0.01

Emission Sources - Maximum Allowable Emission Rates

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
HCl - hydrogen chloride
H_2SO_4 - sulfuric acid
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Planned maintenance, startup, and shutdown emissions are included.
(6) Compliance will be based on a 30-day rolling average.
(7) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: August 12, 2014