TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

EXAMPLE A

COMBINED
NOTICE OF PUBLIC MEETING
AND
NOTICE OF APPLICATION AND PRELIMINARY DECISION
FOR AN AIR QUALITY PERMIT

AIR QUALITY PERMIT NUMBERS: 8996 AND PSDTX454M4

APPLICATION AND PRELIMINARY DECISION. Holcim (US) Inc., 1800 Dove Ln, Midlothian, TX 76065-4435, has applied to the Texas Commission on Environmental Quality (TCEQ) for issuance of Air Quality Permit 8996 and Prevention of Significant Deterioration (PSD) Air Quality Permit PSDTX454M4, which would authorize modification to the Portland Cement Plant at 1800 Dove Lane, Midlothian, Ellis County, Texas 76065. This application was processed in an expedited manner, as allowed by the commission's rules in 30 Texas Administrative Code, Chapter 101, Subchapter J. This application was submitted to the TCEQ on June 3, 2019. The existing facility will emit the following air contaminants in a significant amount: carbon monoxide and particulate matter including particulate matter with diameters of 10 microns or less and 2.5 microns or less. In addition, the facility will emit the following air contaminants: hazardous air pollutants, nitrogen oxides, organic compounds, sulfuric acid, and sulfur dioxide.

The degree of PSD increment predicted to be consumed by the proposed facility and other increment-consuming sources in the area is as follows:

$PM_{2.5}$

Maximum Averaging Time	Maximum Increment Consumed ($\mu g/m^3$)	Allowable Increment ($\mu g/m^3$)
24-hour	2.7	9
Annual	0.4	4

The executive director has determined that the emissions of air contaminants from the proposed facility which are subject to PSD review will not violate any state or federal air quality regulations and will not have any significant adverse impact on soils, vegetation, or visibility. All air contaminants have been evaluated, and "best available control technology" will be used for the control of these contaminants.

The executive director has completed the technical review of the application and prepared a draft permit which, if approved, would establish the conditions under which the facility must operate. The permit application, executive director's preliminary decision, draft permit, and the executive director's preliminary determination summary and executive director's air quality analysis, will be available for viewing and copying at the TCEQ central office, the TCEQ Dallas/Fort Worth regional office, and at the A H Meadows Public Library, 922 South 9th Street, Midlothian, TX 76065 , beginning the first day of publication of this notice. The facility's compliance file, if any exists, is available for public review at the TCEQ Dallas/Fort Worth Regional Office, 2309 Gravel Dr, Fort Worth, Texas.

INFORMATION AVAILABLE ONLINE. These documents are accessible through the Commission's Web site at www.tceq.texas.gov/goto/cid: the executive director's preliminary decision which includes the draft permit, the executive director's preliminary determination summary, the air quality analysis, and, once available, the executive director's

response to comments and the final decision on this application. Access the Commissioners' Integrated Database (CID) using the above link and enter the permit number for this application. The public location mentioned above provides public access to the internet. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For exact location, refer to application. http://www.tceq.texas.gov/assets/public/hb610/index.html?lat=32.511111&lng=-96.973611&zoom=13&type=r.

PUBLIC COMMENT/PUBLIC MEETING. The TCEQ will hold a public meeting for this application. You may submit public comments on this application or request a contested case hearing to the TCEQ Office of the Chief Clerk at the address below. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. A public meeting is not a contested case hearing. The TCEQ will consider all public comments in developing a final decision on the application. The public meeting will consist of two parts, an Informal Discussion Period and a Formal Comment Period. During the Informal Discussion Period, the public is encouraged to ask questions of the applicant and TCEQ staff concerning the application. However, informal comments made during the Informal Discussion Period will not be considered by the TCEQ Commissioners before reaching a decision on the permit and no formal response will be made to the informal comments. During the Formal Comment Period, members of the public may state their formal comments into the official record. A written response to all formal comments will be prepared by the Executive Director and considered by the Commissioners before they reach a decision on the permit. A copy of the response will be sent to each person who submits a formal comment or who requested to be on the mailing list for this application and who provides a mailing address. Only relevant and material issues raised during the formal comment period can be considered if a contested case hearing is granted.

The Public Meeting is to be held:

Thursday, August 27, 2020 at 7:00 PM

Members of the public who would like to ask questions or provide comments during the meeting may access the meeting via webcast by following this link: https://www.gotomeeting.com/webinar/join-webinar and entering Webinar ID 371-675-299. It is recommended that you join the webinar and register for the public meeting at least 15 minutes before the meeting begins. You will be given the option to use your computer audio or to use your phone for participating in the webinar.

Those without internet access may call (512) 239-1201 at least one day prior to the meeting for assistance in accessing the meeting and participating telephonically. Members of the public who wish to only listen to the meeting may call, toll free, (415) 655-0060 and enter access code 682-351-930.

Additional information will be available on the agency calendar of events at the following link:

https://www.tceq.texas.gov/agency/decisions/hearings/calendar.html.

Persons with disabilities who need special accommodations at the public meeting should call the Office of the Chief Clerk at (512) 239-3300 or 1-800-RELAY-TX (TDD) at least one week prior to the meeting.

You may submit additional written public comments within 30 days of the date of newspaper publication of this notice in the manner set forth in the AGENCY CONTACTS AND INFORMATION paragraph below. After the deadline for public comment, the executive director will consider the comments and prepare a response to all public comment. The response to comments, along with the executive director's decision on the application will be mailed to everyone who submitted public comments or is on a mailing list for this application.

OPPORTUNITY FOR A CONTESTED CASE HEARING. A contested case hearing is a legal proceeding similar to a civil trial in a state district court. **A person who may be affected by emissions of air contaminants from the facility is entitled to request a hearing. A contested case hearing request must include the following: (1) your name (or for a group or association, an official representative), mailing address, daytime phone number; (2) applicant's name and permit number; (3) the statement "I/we request a contested case hearing;" (4) a specific description of how you would be adversely affected by the application and air emissions from the facility in a way not common to the general public; (5) the location and distance of your property relative to the facility; (6) a description of how you use the property which may be impacted by the facility; and (7) a list of all disputed issues of fact that you submit during the comment period. If the request is made by a group or association, one or more members who**

have standing to request a hearing must be identified by name and physical address. The interests the group or association seeks to protect must also be identified. You may also submit your proposed adjustments to the application/permit which would satisfy your concerns. Requests for a contested case hearing must be submitted in writing within 30 days following this notice to the Office of the Chief Clerk, at the address provided in the information section below.

A contested case hearing will only be granted based on disputed issues of fact or mixed questions of fact and law that are relevant and material to the Commission's decisions on the application. The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. Issues that are not submitted in public comments may not be considered during a hearing.

EXECUTIVE DIRECTOR ACTION. If a timely contested case hearing request is not received or if all timely contested case hearing requests are withdrawn, the executive director may issue final approval of the application. The response to comments, along with the executive director's decision on the application will be mailed to everyone who submitted public comments or is on a mailing list for this application, and will be posted electronically to the CID. If any timely hearing requests are received and not withdrawn, the executive director will not issue final approval of the permit and will forward the application and requests to the Commissioners for their consideration at a scheduled commission meeting.

MAILING LIST. You may ask to be placed on a mailing list to obtain additional information on this application by sending a request to the Office of the Chief Clerk at the address below.

AGENCY CONTACTS AND INFORMATION. Public comments and requests must be submitted either electronically at www14.tceq.texas.gov/epic/eComment/, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the Public Education Program toll free at 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Holcim (US) Inc. at the address stated above or by calling Mr. Daniel Carnes, Environmental Manager at (972) 923-5830.

Notice Issuance Date: August 3, 2020

Special Conditions

Permit Numbers 8996 and PSDTX454M5

Emission Limitations, Fuel Specifications, and Operating Requirements

1. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and those sources are limited to the emission limits and other conditions specified in that attached table. This permit authorizes planned maintenance, startup, and shutdown (MSS) activities which comply with the emission limits in the maximum allowable emission rates table (MAERT) and the opacity limits of Special Condition No. 9.

2. These facilities shall comply with all applicable requirements of the following regulations.

   A. The U. S. Environmental Protection Agency (EPA) Standards of Performance for New Stationary Sources (NSPS) in Title 40 Code of Federal Regulations (40 CFR) Part 60:

      (1) Subpart A - General Provisions;

      (2) Subpart F – Portland Cement Plants;

      (3) Subpart Y - Coal Preparation Plants; and

      (4) Subpart OOO - Nonmetallic Mineral Processing Plants.

   B. The EPA National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Source Categories in 40 CFR Part 63:

      (1) Subpart A - General Provisions; and

      (2) Subpart LLL - Portland Cement Manufacturing Industry.

   C. The Texas Commission on Environmental Quality (TCEQ) regulations in Title 30 Texas Administrative Code (30 TAC) Chapter 117, Subchapter E, Division 2 - Cement Kilns.

   D. If any condition of this permit is more stringent than the regulations so incorporated, then for the purposes of complying with this permit, the permit condition shall govern and be the standard by which compliance shall be demonstrated.

3. Clinker production is limited to:

   A. 1.34 million short tons per year (stpy) per kiln; and

   B. 2.67 million stpy plant-wide.

   C. Production limits are based on a rolling 12-month period.

4. The facility is subject to 40 CFR 63, Subpart LLL at all times. The following limits are associated with a compliance date of September 9, 2015, subject to change to September 9, 2016 per approval of a pending one-year extension request.

Contaminant	Limit	Other conditions
Particulate Matter (PM) filterable ($PM/PM_{10}/PM_{2.5}$)	0.07 pounds per ton (lb/T) clinker or alternative PM limit calculated using Equation 1 of 40 CFR 63.1343(b)(2)	30 operating day rolling average excluding periods of startup / shutdown (SU/SD) as defined in 40 CFR 63.1341

Contaminant	Limit	Other conditions
Total Hydrocarbons (THC) OR alternative limit on Organic Hazardous Air Pollutants (OHAP)	24 parts per million THC (as propane) by volume dry (ppmvd) corrected to 7 percent oxygen (% O_2) OR Alternative OHAP limit as determined per 40 CFR 63.1349(b)(7)	30 operating day rolling average excluding periods of SU/SD as defined in 40 CFR 63.1341
Mercury(Hg)	55 lb/million tons clinker	30 operating day rolling average excluding periods of SU/SD as defined in 40 CFR 63.1341
Dioxins/Furans (D/F)	0.20 nanogram per dry standard cubic meter (TEQ), corrected to 7% O_2 OR 0.40 TEQ, corrected to 7% O_2, if average temperature at the inlet to the first PM control device during the D/F performance test is 400 °F or less.	
Hydrogen Chloride (HCl)	3 ppmvd corrected to 7% O_2 as determined per 40 CFR 63.1349(b)(6)	30 operating day rolling average excluding periods of SU/SD as defined in 40 CFR 63.1341

5. When ammonia (NH3) is being injected to control emissions of NOx, each kiln shall not exceed the NH_3 emission limit of 35 ppmvd corrected to 7% O_2, on a 24 hour rolling average basis.

6. Authorized kiln and precalciner fuels are as follows.

   A. Pipeline-quality, sweet natural gas;

   B. Coal containing no more than 3.0 percent sulfur by weight;

   C. Petroleum coke.

   D. Non-waste fuels as described in 40 CFR §§ 241.3 and 241.4. Any non-hazardous secondary material used as a fuel other than those identified in 40 CFR § 241.4 must meet the legitimacy criteria set forth in 40 CFR § 241.3(d)(1). The permit holder shall maintain records showing that the non-hazardous secondary materials are managed as a valuable commodity; have a meaningful heating value; are used as a fuel in the kiln or precalciner to recover energy; contain contaminants or groups of contaminants at levels equal to or less than natural gas, coal or petroleum coke fuels as specified in Special Condition Nos. 6.A, 6.B, or 6.C, or other traditional fuels that the kilns and precalciners are designed to burn; and, in the case of non-hazardous secondary materials that have been previously discarded, have been processed into legitimate non-waste fuel. Non-waste fuels, include, but are not limited to the following:

      (1) Non-hazardous solids:

(a) oil containing materials, including, but not limited to: on-site and off-site generated oil filter fluff, absorbents, rags, grease, wax, and other similar materials;

(b) material collected at municipal and post-industrial recycling facilities such as paper, cardboard, and plastics which may contain small quantities of metals; and

(c) materials collected during or generated from carpet recycling (such as carpet fiber, carpet backing, carpet pads, and other similar materials);

(d) rubber-derived fuel (RDF), including, but not limited to: tire-derived fuel (TDF), manufacturing raw material, rejects, and waste; green rubber, off-specification rubber, hoses, and other similar rubber materials;

(e) asphalt base composite roofing material, up to 10 tons per hour and 87,000 tons per year (tpy), including: sand, fiberglass, and other non-asphalt materials in the composite;

(f) wood chips; and

(g) activated carbon.

(2) Non-hazardous liquids:

(a) oil containing liquids, including, but not limited to: on-site and off-site generated on-specification oil, off-specification oil, oil-water emulsions, oily waters, virgin fuel oils, virgin oils, and other similar liquids;

(b) glycols; and

(c) glycerin containing liquids generated from the production of biodiesel fuel.

E. Hazardous waste, as defined by the Federal Resource Conservation and Recovery Act and the rules implementing that Act, may not be fired.

7. Fuels are limited and shall be recorded as follows:

A. The non-waste fuel fed to each kiln system (kiln and precalciner) is limited as a percentage of the total fuel fed into the kiln system, calculated as heat input on a higher heating value (HHV) basis, on an daily basis, as follows:

(1) Total non-waste fuels, as described in Special Condition No. 6.D above, 60 percent of the total fuel; and

(2) TDF, 45 percent of the total fuel.

B. The natural gas heating value shall be provided by the gas supplier.

C. The HHV and sulfur content of the coal shall be determined by sampling each coal delivery upon railcar unloading. **(10/17)**

Ozone Season Emission Limits

8. For each kiln system, from March 1 through October 31 of each year Holcim will meet the Chapter 117 requirements specified in Special Condition No. 2.C during all periods of normal kiln operation. Normal kiln operation does not include the following circumstances:

A. MSS activity when the precalciner operating temperature is too low for proper SNCR operation; and

B. an imminent or actual breakdown or excursion of the process, or other process that results in unauthorized emissions; or when a detached or secondary plume is observed by using EPA Test Method (TM) 22 of Appendix A-7 in 40 CFR Part 60. The permit holder must notify the TCEQ Regional Office within 24 hours of a positive EPA TM 22 observation of a detached or secondary plume. This notification does not satisfy excess opacity event reporting requirements under 30 TAC § 101.201.

Opacity / Visible Emission Limitations

9. During normal operations, the opacity of emissions shall not exceed the limits in the table below.

Source	EPNs	Opacity Limit for any six-minute period
Kiln stacks	7*, 62*	10%
All other baghouse stacks	see MAERT	5%

10. During MSS activities, the opacity of emissions for sources without PM CPMS shall not exceed 20% for any six-minute period, for any source except for buildings, enclosed facilities, or other structures, for which the opacity shall not exceed 30% for any six-minute period.

11. Compliance with the opacity limits is determined:

(1) For EPNs 7* and 62* by using a PM CPMS that has passed the initial certification requirements of 40 CFR Part 63, Subpart LLL may be used instead of a COMS. If the CPMS indicates an exceedance of the site-specific operating limit established per 40 CFR 63 Subpart LLL PM emission compliance, a visible emission observation shall be performed within 24 hours to establish compliance with the applicable opacity limits of this Special Condition.

The visible emission determination must be made in accordance with 40 CFR Part 60, Appendix A, Test Method 22. The observation period when conducting Method 22 shall extend for at least one minute during normal operations. Contributions from uncombined water shall not be included in determining compliance with this condition. If visible emissions are observed, then the permit holder must conduct a six-minute test of opacity in accordance with 40 CFR Part 60 Appendix A, Test Method 9. The Method 9 test must begin within one hour of any observation of visible emissions.

(2) For all other EPNs,

(a) By following the periodic monitoring procedures specified for each EPN in the federal operating permit (FOP) for this site, FOP No. O1046.

(b) After September 9, 2015, any source subject to the opacity monitoring requirements of 40 CFR § 63.1350(f) may follow those procedures to demonstrate compliance with the opacity limits of this permit instead of Special Condition 11.2(a).

(c) Periods of excess opacity are subject to the requirements of 30 TAC §§ 101.201 and 101.211, relating to Emission Events and Scheduled Maintenance, Start-up, and Shutdown Activities.

Fugitive Emissions

12. All hoods, ducts, and collection systems shall be effective in preventing fugitive emissions from buildings. Compliance with this condition shall be determined per the monitoring procedures specified in the Operation and Maintenance Plan required by 40 CFR Part 63, Subpart LLL.

13. Dust emissions from cement loading into trucks or railcars shall be controlled with a self-sealing shroud at the loading point and venting of the displaced air to a fabric filter.

14. Material collected in the baghouses shall be disposed of in a manner that will prevent the material from becoming airborne. The bypass baghouse dust loadout shall be enclosed on two sides with a vertical windbreak extending up to the first-floor level. A water sprinkler system or water truck shall be used as necessary to control dust emissions from any baghouse dust disposed of in on-site landfills.

15. In order to control fugitive dust emissions to the minimum level possible under existing conditions:

    A. plant roads shall be paved, water sprinkled, or swept, as necessary;

    B. quarry roads, including haul roads (i.e., Raw Material Road and Bypass Dust Road), shall be oiled or water sprinkled, as necessary; and

    C. primary coal stockpiles shall be stored in the coal storage building. Any outside coal stockpiles shall be sprayed with water and/or chemicals, as necessary.

16. Individual Chemical Species

    A. For each kiln stack, if not specified in the MAERT, the emission rate for any compound with an Effects Screening Level (ESL) is limited as follows:

        (1) Emission Rate (pound per hour) = short-term ESL x 3.84

        (2) Emission Rate (TPY) = annual ESL x 324

    B. The short-term and annual ESLs for any individual chemical species limited by this condition are those contained in the TCEQ ESL list dated March 17, 2014.

    C. The allowable emission rate shall be calculated for each contaminant tested pursuant to Special Condition No. 19 and the calculated allowable emission rate shall be included in the sampling report submitted pursuant to Special Condition No. 19.F.

17. For each kiln stack, compliance with the 12-month rolling emission limits in the MAERT for PM, PM equal to or less than 10 microns in diameter (PM_{10}), and PM equal to or less than 2.5 microns in diameter ($PM_{2.5}$) shall be calculated using the actual operation hours and stack test data for each of the following operating scenarios:

    A. raw mill on, scrubber on;

    B. raw mill off, scrubber on;

C. raw mill on, scrubber off; and

D. raw mill off, scrubber off.

Initial Demonstration of Compliance

18. Sampling ports and platforms shall be incorporated into the design of the Kiln Stacks according to the specifications set forth in "Chapter 2, Stack Sampling Facilities." Alternate sampling facility designs may be submitted for approval by the TCEQ Regional Director.

19. The holder of this permit shall perform stack sampling and other testing by September 30, 2010, as required, to establish the actual pattern and quantities of PM_{10} (front-half and back-half), lead, and VOC being emitted into the atmosphere from the Kiln Line 2 Stack (EPN 62*) and shall perform stack sampling of PM emissions from three baghouses: Finish Mill System No. 1 Baghouse, (EPN 23*); Finish Mill System No. 2 Baghouse, (EPN 29*); SKS and Cement Mill Baghouse, (EPN 66*). Stack sampling and other testing for Kiln Line 1 Stack (EPN 7*) to establish the actual pattern and quantities of lead shall be completed by the later of the first continuous emissions monitoring system (CEMS) quality-assurance testing conducted in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.1 or compliance sampling required by 40 CFR Part 63, Subpart LLL after restart. Sampling results performed since September 22, 2005, can satisfy this condition if determined acceptable to the TCEQ and the TCEQ Regional Office waives subsequent testing. Sampling must be conducted in accordance with appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with EPA Test Methods (TMs). The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at its expense. Production rates shall be recorded during each test run and entered in the final sampling report. The sampling of Kiln Line 1 Stack (EPN 7*), Kiln Line 2 Stack (EPN 62*), Finish Mill System No. 1 Baghouse (EPN 23*), Finish Mill System No. 2 Baghouse (EPN 29*), SKS and Cement Mill Baghouse (EPN 66*), has been performed in accordance with this Special Condition. **(10/18)**

A. Air contaminants emitted from Kiln 2 (EPN 62*, once the Regenerative Thermal Oxidizer [RTO] is installed) and Kiln 1 (EPN 7*, once the Selective Catalytic Reduction for THC / OHAP [SCR-THC] is installed) to be tested for include PM_{10}, $PM_{2.5}$, and methane. Initial determination of compliance for PM (filterable), HCl, D/F, THC or OHAP, and Hg shall be performed in accordance with the applicable initial compliance requirements of 40 CFR Part 63, Subpart LLL. Initial determination of compliance for volatile organic compounds (VOC) shall be performed in accordance with Special Condition No. 22.C.

(1) Determine the PM lb/hr emission rates of the MAERT as the average of three stack sampling test runs; each run must be at least one hour and no more than three hours in duration. For $PM/PM_{10}/PM_{2.5}$, sampling shall be conducted both while the inline raw mill is operating and is not operating. Both filterable and condensable PM must be tested to demonstrate compliance with the filterable and condensable PM lbs/hr emission limits in the MAERT. The filterable PM does not need to be partitioned into 2.5 and 10 micron fractions if compliance with the $PM_{2.5}$ and PM_{10} emission limits in the MAERT is demonstrated by assuming all the filterable PM is $PM_{2.5}$. Condensable PM is assumed to be all less than one micron in diameter.

(2) The kiln system, wet scrubbers, and other emission controls must be functioning properly during the testing.

(3) The specific method and procedure for the VOC testing in Special Condition No. 23 must be identified in the test plan notice submitted to the Dallas/Fort Worth Regional Office.

B. The TCEQ Dallas/Fort Worth Regional Office shall be contacted as soon as testing is scheduled, but not less than 30 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.

(6) A test plan for TCEQ approval which identifies the alternative fuel combinations and maximum firing rates to be tested, and the speciated compounds emissions to be sampled and reported.

(7) The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper forms for recording pertinent data, and to review the format and procedures for submitting the test reports. In addition, TCEQ may identify species of PM_{10} and VOC to be analyzed from the PM_{10} and VOC samples. The pretest meeting shall be conducted on-site at the facility in the presence of a qualified person knowledgeable about stack testing and the units being tested.

(8) A written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Dallas/Fort Worth Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

C. The deadlines for the sampling specified above may be extended. Requests for additional time to perform sampling shall be submitted to the TCEQ Dallas/Fort Worth Regional Office. Additional time to comply with any applicable requirements of 40 CFR Part 60 requires EPA approval.

D. Test waivers and alternate/equivalent procedure proposals for NSPS and NESHAPS for Source Categories testing which must have EPA approval shall be submitted to the TCEQ Dallas/Fort Worth Regional Director.

E. Primary operating parameters that enable determination of production rates shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting. Additional stack testing may be required if the kiln achieves a production rate more than 10 percent higher than the rate occurring during the most recent stack test performed after the issuance of this permit.

F. Two copies of each initial demonstration of compliance sampling report shall be forwarded to the TCEQ within 60 days after sampling is completed unless an extension is granted by the TCEQ Regional Office. Sampling reports shall comply with the provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

(1) One copy to the TCEQ Dallas/Fort Worth Regional Office.

(2) One copy to the TCEQ Austin Office of Air, Air Permits Division.

Continuous Demonstration of Compliance

20. The holder of this permit shall install, calibrate, operate, and maintain CEMS to measure and record the SO_2, NO_x, and CO concentrations, and continuous flow rate sensors to measure and record the exhaust flow rate, in each kiln. The SO_2, NO_x, and CO CEMS and the continuous flow rate sensor shall be used as a continuous emission rate monitoring system (CERMS) for SO_2, NO_x, and CO.

    A. The systems 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 portions of 40 CFR Part 60, Appendix B,

        (1) Performance Specification Nos. 2 through 4, for the CEMS; and

        (2) Performance Specification No. 6 for the flow rate sensors.

    B. Each CEMS shall be zeroed and spanned daily and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in 40 CFR Part 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days, unless the monitor is required by a subpart of NSPS or NESHAPS, in which case zero and span shall be done daily without exception.

    C. Each CEMS shall be quality-assured at least quarterly in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2. All cylinder gas audit results and any CEMS downtime shall be reported quarterly to the appropriate TCEQ Regional Director, and necessary corrective action shall be taken if the downtime exceeds 10 percent of the kiln operating hours in the quarter. Failure to complete any corrective action as directed by the TCEQ Dallas/Fort Worth Regional Office may be deemed a violation of the permit. For non-NSPS sources, an equivalent method approved by the TCEQ may be used.

    D. Each CEMS shall complete a minimum of one cycle of sampling, analyzing, and data recording for each successive 15-minute period. One-hour average concentrations and pounds of pollutant per hour shall be computed from normally at least four, and a minimum of two, data points equally-spaced over each one-hour period. Data recorded during periods of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the computed data averages.

21. Upon request by the TCEQ Executive Director or the TCEQ Regional Director having jurisdiction, the holder of this permit shall perform stack sampling and/or other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the cement kilns to demonstrate compliance with the MAERT and with emission performance levels as specified in the special conditions and/or otherwise prove satisfactory equipment performance. Sampling must be conducted in accordance with the TCEQ Sampling Procedures Manual or in accordance with the applicable EPA 40 CFR procedures. Any deviations from those procedures must be approved by the TCEQ Executive Director or the appropriate TCEQ Regional Director prior to conducting sampling.

    Air contaminants emitted from the kilns to be tested for include (but are not limited to) PM, NO_x, CO, VOC, and SO_2.

22. The holder of this permit shall install, calibrate, operate, and maintain CEMS to measure and record the in-stack concentrations of THC, Hg, and oxygen from Kiln 2 (EPN 62*) and Kiln 1 (EPN 7*) in accordance with the requirements of 40 CFR Part 63, Subpart LLL. The holder of this permit shall

install, calibrate, operate, and maintain a continuous flow rate sensor to measure and record the exhaust flow rate in each kiln stack. The THC CEMS, which may be the same unit as described in Special Condition 20, is subject to the following:

A. The THC CEMS and the continuous flow rate sensor shall be used as a CERMS for VOC.

B. The CEMS monitoring data shall be reduced to hourly average concentrations in accordance with 40 CFR §60.13(h)(2(i)-(ix).

Each CEMS shall complete a minimum of one cycle of sampling, analyzing, and data recording for each successive 15-minute period.

Data recorded during periods of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the computed data averages.

C. Compliance with VOC emission limits in the MAERT shall be determined by applying the site specific VOC to methane fraction to THC CEMS data to calculate VOC lb/hr emissions from the kiln on a 30-day rolling average.

23. When ammonia is being injected to control NOx emissions per the applicable requirements of 30 TAC Chapter 117, the NH_3 concentration in the Exhaust Stack shall be tested or calculated according to one of the methods listed below and shall be tested or calculated according to frequency listed below. Testing for NH_3 slip is only required on days when the SNCR unit is in operation.

A. The holder of this permit may install, calibrate, maintain, and operate a CEMS to measure and record the concentrations of NH_3. The NH_3 concentrations shall be corrected and reported in accordance with Special Condition No. 5 above.

B. The NH_3 slip may be measured using a sorbent or stain tube device specific for NH_3 measurement in the appropriate range. The frequency of sorbent or stain tube testing shall be monthly.

(1) If the sorbent or stain tube testing indicates an ammonia (NH_3) slip concentration that exceeds 35 parts per million (ppm) at any time, the permit holder shall begin NH_3 testing by either the Phenol-Nitroprusside Method, the Indophenol Method, or EPA Conditional Test Method (CTM) 27 on a quarterly basis in addition to the monthly sorbent or stain tube testing.

(2) If the quarterly testing indicates NH_3 slip is 35 ppm or less, the Phenol Nitroprusside Indophenol CTM 27 tests may be suspended until sorbent or stain tube testing again indicate 35 ppm NH_3 slip or greater.

C. The permit holder may install and operate a second NO_x CEMS probe located between the kiln and the SNCR, upstream of the stack NO_x CEMS, which may be used in association with the SNCR efficiency and NH_3 injection rate to estimate NH_3 slip. This condition shall not be construed to set a minimum NO_x reduction efficiency on the SNCR unit.

D. The permit holder may install and operate a dual stream system of NO_x CEMS at the exit of the SNCR. One of the exhaust streams would be routed, in an unconverted state, to one NO_x CEMS, and the other exhaust stream would be routed through a NH_3 converter to convert NH_3 to NO_x and then to a second NO_x CEMS. The NH_3 slip concentration shall be calculated from the delta between the two NO_x CEMS readings (converted and unconverted).

E. Any other method used for measuring NH_3 slip shall require prior written approval from the TCEQ Air Permits Division in Austin.

24. The holder of this permit shall install, calibrate and maintain systems and operate such systems as necessary to control contaminants regulated by 40 CFR 63, Subpart LLL to the emission limits set in Special Condition 4. Line 2 (EPN 62*) will have an RTO system and Line 1 (EPN 7*) will have an SCR-THC system.

25. Regional Notification

A. The TCEQ Regional Director shall be notified as soon as possible after the discovery of any CEMS or CPMS malfunction which is expected to result in more than 24 hours of lost data. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director in case of extended CEMS or CPMS downtime.

B. The TCEQ Dallas/Fort Worth Regional Office shall be notified at least 30 days prior to the quarterly cylinder gas audit required by 40 CFR Part 60 Appendix F in order to provide the TCEQ staff the opportunity to observe the testing.

Planned Maintenance, Startup, and Shutdown

26. 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.

27. Planned startup and shutdown activities associated with the kilns shall comply with the following definitions and requirements to minimize emissions:

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 150 tons per hour, whichever occurs first.

B. Shutdown means the cessation of kiln operation. Shutdown begins when feed to the kiln is halted and ends when continuous kiln rotation ceases.

28. Compliance with the emissions limits for planned maintenance activities identified in this permit shall be demonstrated as follows.

A. For ILE planned maintenance activities (Attachment A):

(1) 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.

(2) 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.

B. For each pollutant emitted during non-ILE planned maintenance activities (Attachment B), the permit holder shall do the following for each calendar month.

(1) Determine the total emissions of the pollutant that result from such non-ILE planned maintenance activities in accordance with the methods listed in Special Condition No. 28.

(2) Compare the pollutant's short-term (hourly) emissions during planned maintenance activities, as determined using one of the methods listed in Special Condition No. 28, to the applicable short-term planned MSS emissions limit in the MAERT.

(3) Once the pollutant's emissions during planned maintenance activities have been measured for 12 months after the MSS permit amendment is issued, compare the rolling 12-month emissions of the pollutant, as determined using the monthly emission totals, to the applicable annual planned MSS emissions limit in the MAERT.

29. 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:

A. Use of a CEMS. If emission concentrations measured by the CEMS during MSS activities exceed the maximum value of the range over which the CEMS is certified, additional information must be provided to justify the use of the CEMS data in the MSS emission determination. The additional information may include use of default values that are shown to conservatively estimate the actual emissions.

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, or 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, or fuel sulfur content.

Aqueous Ammonia

30. The permit holder shall maintain prevention and protection measures for the NH_3 storage system. The NH_3 storage tank area will be marked and protected so as to protect the NH_3 storage area from accidents that could cause a rupture. The aqueous ammonia stored shall have a concentration of less than 20% NH_3 by weight.

31. In addition to the requirements of Special Condition No. 29, the permit holder shall maintain the piping and valves in NH_3 service as follows:

A. Audio, visual, and olfactory (AVO) checks for NH_3 leaks shall be made once every 24 hours when the kiln(s) are operating.

B. Immediately, but no later than 24 hours upon detection of a leak, following the detection of a leak, plant personnel shall take one or more of the following actions:

(1) Locate and isolate the leak, if necessary.

(2) Commence repair or replacement of the leaking component.

(3) Use a leak collection or containment system to control the leak until repair or replacement can be made if immediate repair is not possible.

Recordkeeping Requirements

32. The following records shall be kept and made available upon request to the TCEQ or any air pollution control program having jurisdiction. Records shall be maintained on a rolling five-year retention basis.

A. Alternative fuels:

(1) The source and date received;

(2) Amount received in pounds (or gallons for liquids);

(3) A description of the material;

(4) Estimated fuel HHV in Btu per pound (or Btu/gallon for liquids);

(5) Number of pounds fired (or gallons fired for liquids) and date/time fired;

(6) Percentage of TDF fed into the kiln system (kiln and precalciner) on a daily, HHV basis; and

(7) Percentage of total alternative fuel fed into the kiln system (kiln and precalciner) on a daily, HHV basis.

(8) Records as specified in Special Condition No. 6.D for other non-waste fuels.

B. Records to demonstrate compliance with the 5.3 tons per day NO_x combined kiln cap limit, 30-day rolling average, beginning on March 31 and ending on October 31 of each calendar year.

C. SO_2 scrubber records. For each scrubber:

(1) Uptime (in hours) as a percentage of kiln operating hours;

(2) Scrubbing liquid pH and flow rate recorded at least once per hour; and

(3) Downtime (in hours) of the raw mill when the scrubber is down.

D. Records of MSS, including the following, to demonstrate compliance with Special Condition Nos. 26 through 28 and the MAERT:

(1) Records of startup and shutdown of the kilns, including the date, time, duration, and emissions associated with those activities.

(2) Records of non-ILE planned maintenance activities and the associated emissions.

(3) Records of ILE planned maintenance activities and annual validations.

E. A copy of this permit.

F. A complete copy of the testing reports and records of the initial performance testing and initial determination of compliance completed pursuant to Special Condition No. 18 to demonstrate initial compliance.

G. Stack sampling results or other air emissions testing (other than CEMS data) that may be conducted on units authorized under this permit after the date of issuance of this permit.

H. Records of NH_3 concentrations monitored or calculated pursuant to Special Condition No. 22 and the corresponding NH_3 emissions. Records of NH_3 AVO checks pursuant to Special Condition No. 30.

I. Records of NO_x, CO, diluent gases (O_2 or CO_2), SO_2, THC, and Hg CEMS emissions data, as applicable, and continuous flow rate monitoring data to demonstrate compliance with the emission rates listed in the MAERT.

J. Raw data files of all CEMS data including calibration checks and adjustments and maintenance performed on these systems.

K. Records of VOC concentrations and VOC emissions calculated pursuant to Special Condition No. 21.

L. All monitoring data and quality-assurance data shall be maintained by the source for a period of five years and shall be made available to the Executive Director of the TCEQ 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.

M. Records to demonstrate compliance with limits for PM, THC or OHAP, Hg, D/F, and HCl as specified in Special Conditions 4 and 21.

N. The project authorized by the amendment application, PI-1 dated June 3, 2019, is determined not to be subject to major new source review by identifying projected actual emission rates for the following facilities potentially affected by the project provided the projected actual emission rates for the indicated pollutants are not exceeded. Actual emissions from the facilities shall be monitored, recorded and reports made in accordance 30 TAC § 116.127 for five years, as specified in 30 TAC § 116.127(b)(1).

EPN	Source Name	Pollutant	Projected Actuals (tpy)
62	Kiln Line 2, Bypass Baghouse, and Coal Mill Baghouse	NOx	1,102.00
62	Kiln Line 2, Bypass Baghouse, and Coal Mill Baghouse	SO_2	1,767.23
62	Kiln Line 2, Bypass Baghouse, and Coal Mill Baghouse	VOC	219.00

Reporting Requirements

33. The holder of this permit shall submit two copies of quarterly monitoring (CEMS, CERMS, or CPMS) reports to the TCEQ Dallas/Fort Worth Regional Office in a format specified by the TCEQ Regional Office. All reports must be postmarked by the 30th day following the end of each calendar quarter and shall include the following information for each monitor:

A. The date and duration of time from the commencement to the completion of an event which resulted in excess emissions of any pollutant.

B. The date and time of the commencement and completion of each specific time period of excess emissions within that event.

C. The total time duration of excess emissions.

D. The magnitude of the emissions, including the highest emission rate, and the average emission rate. All excess emissions shall be converted into the units of the permit. All conversion factors and equations shall be included.

E. The nature and cause of any malfunction resulting in excess emissions and the corrective action taken and/or preventative measures adopted.

F. The date and time identifying each period during which a CEMS or (or emissions measuring device acceptable by the EPA) was inoperative, except for zero and span checks, and the nature of the system repairs and/or adjustments which occurred during the downtime.

G. When no excess emissions have occurred or the CEMS, CERMS, or CPMS have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

H. The total tons of SO_2, NO_x, and CO emitted during the quarter from Kilns 1 and 2 (EPNs 7* and 62*) prior to the installation of the Oxidation Control Systems; the total tons of NO_x, CO, SO_2, VOC, and Hg emitted during the quarter from the Kilns 1 and 2 following installation of the Oxidation Control Systems (EPNs 7* and 62*); the total hours of kiln operation; and the total hours of raw mill operation during the quarter.

I. In addition to the other information required in this special condition, a summary of the excess emissions shall be reported using the form identified as Figure 1 in 40 CFR § 60.7.

J. The reporting of excess emissions required by this condition does not relieve the holder of this permit from notification requirements of emission events as required by 30 TAC § 101.201 or notification of scheduled maintenance, startup, and shutdown activities as required by 30 TAC § 101.211.

34. For the purposes of reporting pursuant to Special Condition Nos. 1 and 32, excess emissions from the kiln stacks are defined as follows:

A. Excess emissions of NO_x are each daily period of operation during which the combined Kiln 1 and Kiln 2, 30-day rolling average emissions of NO_x, as measured and recorded by the CERMS, exceed the emission limitations of the MAERT. The 30-day rolling average is to be computed on a daily basis as the average of the hourly emissions on the 30th day and the preceding 29 daily average emissions (representing only those hours during kiln operation including all hours of planned maintenance, startup, and shutdown).

B. Excess periods of opacity are each six-minute period of operation during which the average opacity, as measured and recorded by Method 9 Test, exceed the opacity limitations of Special Condition No. 10.

35. The holder of this permit shall physically identify and mark in a conspicuous location all equipment that has the potential of emitting air contaminants as follows:

A. The facility identification numbers as submitted to the Emissions Inventory Section of the TCEQ.

B. The EPNs as listed on the MAERT.

36. The table below lists the maintenance-related sources or activities that are authorized 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.

Source or Activity	Authorization
Application of aqueous detergents, surfactants, and other cleaning solutions containing not more than one percent of any organic compound by weight or containing not more than five percent of any organic compound with a vapor pressure less than 0.002 pounds per square inch absolute	De Minimis
Lab sampling and analysis	De Minimis
Manual applications of cleaning or stripping solutions or coatings for maintenance, including applications using brushes, cloth pads, sponges, droppers, tube dispensing equipment, or spray bottles and pump-up sprayers without aerosol propellants	De Minimis
Office cleaning activities	De Minimis
Yard work and landscaping	De Minimis
Pesticides, insecticides, and fumigation	De Minimis
Inorganic chemical usage	De Minimis
Application of aerosol-propelled organic liquids using hand-held devices for maintaining equipment and other facilities where usage is no more than four aerosol cans or 64 ounces per day on a 12-month rolling average basis	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
Refrigeration system repair	De Minimis
Brazing, soldering, and welding	PBR 30 TAC § 106.227
Maintenance painting; maintenance chemicals	PBR 30 TAC § 106.263
Enclosed and outdoor dry abrasive blasting	PBR 30 TAC § 106.263
Hand-held or manually operated equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or turning of ceramic art work, ceramic precision parts, leather, metals, plastics, fiber board, masonry, carbon, glass, graphite, or wood	PBR 30 TAC § 106.265
Solvent cleaning, parts degreaser	PBR 30 TAC § 106.454
Emergency engines and portable small engines, over 12 months on site, including startup and shutdown	PBR 30 TAC § 106.511
Sludge management	PBR 30 TAC § 106.532
Organic chemical usage for water treatment	PBR 30 TAC § 106.532

37. This permit does not include the facilities or operations at the site identified in the following table. Instead, these facilities or operations are authorized under standard permit (SP) by 30 TAC

Chapter 116 or permit by rule (PBR) by 30 TAC Chapter 106. This list is not intended to be all inclusive and can be altered at the site without modification to this permit.

Source Description	Source Name	EPNs	Rule(s)	Reg. No. (1)
Non-hazardous, organic-containing liquid fuels	Storage tanks and piping	FUG-1	Pollution Control SP § 116.602	70582
Synthetic gypsum to finish mills	Dewatering pile to FEL	38R*	PBR § 106.261	76083
	FEL to storage building	38S*		
	Conveyor to bin drop	38Q*		
	Dewatering pile	38T*		
	Finish mills pile	38U*		
On-site shale mining	Emergency water pump	39A*	PBRs §§ 106.261, 106.472, 106.511	76527
	Overburden to dump truck	39B*		
	Overburden to crusher	39C*		
	Shale to dump truck	39D*		
	Reserve shale pile	38V*		
Reserve clinker storage pile	Pile and material transfer	38Y*	PBR § 106.261	80423
	Material transfer	38Z*		
	Finish mills feed hopper	38J*		
Coal and petcoke additional storage	New coal storage pile	38AA*	PBRs §§ 106.144, 106.264	84171
	New petcoke storage pile	38AB*		
	New coal bin to existing dust collector EPN 13*	38AC*		
	New conveyor belts, and diverter and silo gates	13*(2)		
Solid fuels hopper	Loader to hopper – 1	38H1*	PBRs §§ 106.261, 106.262	94642
	Loader to hopper – 2	38H2*		
	Conveyor transfer point	38H3*		
Limestone screening	Lower bench (LB) crusher	75A*	PBR § 106.261	96989
	Screen	75C*		
	Conveyor to screen pile	75D*		
	Screened limestone pile	75E*		

Source Description	Source Name	EPNs	Rule(s)	Reg. No. (1)
	FEL to LB crusher	PLANTFUG		
Solid fuel screening	Screen hopper	38AD*	PBRs §§ 106.261, 106.262	98215
	Screen dust collector	38AE*		
	Conveyor belt No. 1	38AF*		
	Conveyor belt No. 2	38AG*		
	Conveyor belt No. 3	38AH*		
	Storage pile No. 1	38AI*		
	Storage pile No. 2	38AJ*		
	Storage pile No. 3	38AK*		
Plant-wide degreasing operations	Quarry, mobile, lube, and maintenance shops	GRPDEGREAS	PBR § 106.454	77035
Site-wide tanks	Gasoline and diesel fuel tanks	GRPTANKS	PBRs §§ 106.412, 106.472, 106.473	N/A(3)
Site-wide engines	Emergency engines	GRPEMENGS	PBR § 106.511	N/A(3)
Comfort heaters	Comfort heaters	GRPCOMHTR	PBR § 106.102	N/A(3)

(1) TCEQ New Source Review Air Permit Registration Number.

(2) Emissions from named source only; the EPN includes permitted sources on MAERT.

(3) These PBRs do not require registration.

Date:

Attachment A

Permit Numbers 8996 and PSDTX454M4

Inherently Low-Emitting Maintenance Activities

Planned Maintenance Activity	VOC	NO_x	CO	PM	SO_2
Material handling system maintenance				x	
Material handling system maintenance (air guns)				x	
Miscellaneous particulate filter maintenance				x	
Cartridge particulate filter maintenance				x	
Kiln particulate filter maintenance				x	
CEMS calibration	x	x	x		x
Lube oil/Grease maintenance	x				
Refractory maintenance operations				x	
Deslagging maintenance of kiln/preheater/cooler		x	x	x	
Gaseous fuel venting	x				
Storage vessel emptying	x				

Date: August 18, 2016

Attachment B

Permit Numbers 8996 and PSDTX454M4

Non-Inherently Low-Emitting Maintenance Activities

Planned Maintenance Activity	VOC	NO_x	CO	PM	SO_2
Vacuum truck loading				x	
Vacuum truck unloading				x	

Date: August 18, 2016

Emission Sources - Maximum Allowable Emission Rates

Permit Number 8996

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	
			lbs/hour	TPY (4)
7*	Kiln Line 1, Bypass Baghouse, and Coal Mill Baghouse Stack	CO (8)	2,172.00	3,556.00
		PM (8)	377.00	259.00
		PM_{10} (8)	377.00	259.00
		$PM_{2.5}$ (8)	377.00	259.00
		SO_2 (1-hour)	2,600.00	--
		SO_2 (3-hour)	2,300.00	--
		SO_2 (24-hour)	1,900.00	--
		SO_2 (annual)	--	1,769.00
		TRS	15.00	18.00
		H_2SO_4	180.00	71.00
		VOC (8)	292.00	438.00
		Total OHAPs (30-operating day rolling average excluding startup /shutdown [SU/SD])	63.00	---
		Speciated Compounds	See Attachment I	
62*	Kiln Line 2, Bypass Baghouse, and Coal Mill Baghouse Stack	CO (8)	1,939.00	3556.00
		PM (8)	385.00	292.00
		PM_{10} (8)	385.00	292.00
		$PM_{2.5}$ (8)	385.00	292.00
		SO_2 (1-hour)	2,600.00	--
		SO_2 (3-hour)	2,300.00	--
		SO_2 (24-hour)	1,900.00	--
		SO_2 (annual)	--	1,769
		TRS	15.00	18.00
		H_2SO_4	180.00	71.00

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		VOC (8)	292.00	219.00
		Total OHAPs (30-operating day rolling average excluding SU/SD)	63.00	---
		Speciated Compounds	See Attachment I	
7* and 62*	Combined Kiln Lines 1 and 2 Emission Limits	**Compliance Period (6)**	**Tons/day**	**Total tons**
		NO_x, November 1 through March 30	15.3	2,310
		NO_x, March 31 through October 31	5.3	1,140
		NO_x, Annual (12-month rolling)	---	3,450
1A*	Primary (Upper Bench) Limestone Crusher	PM	0.28	0.25
		PM_{10}	0.13	0.12
		$PM_{2.5}$	0.13	0.12
1B*	Primary (Upper Bench) Limestone Crusher Engine	PM	0.72	3.15
		PM_{10}	0.72	3.15
		$PM_{2.5}$	0.72	3.15
		CO	11.18	48.97
		NO_x	8.09	35.43
		SO_2	1.08	4.73
		VOC	1.43	6.26
2*	Secondary Crusher Baghouse Stack	PM	0.39	1.69
		PM_{10}	0.39	1.69
		$PM_{2.5}$	0.13	0.56
3*	Raw Material Transfer Point Baghouse Stack	PM	0.17	0.75
		PM_{10}	0.17	0.75
		$PM_{2.5}$	0.06	0.25

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
4*	Conveyor Belt Transfer Baghouse Stack	PM	0.35	1.53
		PM_{10}	0.35	1.53
		$PM_{2.5}$	0.11	0.50
5*	Line No. 1 Raw Mill Feed Bins Baghouse Stack No. 1	PM	0.46	2.03
		PM_{10}	0.46	2.03
		$PM_{2.5}$	0.15	0.67
6*	Line No. 1 Raw Mill Feed Bins Baghouse Stack No. 2	PM	0.46	2.03
		PM_{10}	0.46	2.03
		$PM_{2.5}$	0.15	0.67
8*	Rotary Kiln Feed Silo Upper Baghouse Stack	PM	0.52	2.28
		PM_{10}	0.52	2.28
		$PM_{2.5}$	0.17	0.75
9*	Rotary Kiln Feed Silo Lower Baghouse Stack	PM	0.44	1.91
		PM_{10}	0.44	1.91
		$PM_{2.5}$	0.14	0.63
11*	Waste Bypass Dust Baghouse Stack	PM	0.09	0.38
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.03	0.13
12*	Coal Handling Baghouse Stack	PM	0.40	1.76
		PM_{10}	0.40	1.76
		$PM_{2.5}$	0.13	0.58
13*	Coal Storage Bin Baghouse Stack	PM	0.16	0.71
		PM_{10}	0.16	0.71
		$PM_{2.5}$	0.05	0.24
14*	Clinker Conveyor Transfer Point Baghouse Stack	PM	0.11	0.48
		PM_{10}	0.11	0.48
		$PM_{2.5}$	0.04	0.16

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
15*	Clinker Conveyor Baghouse Stack	PM	0.15	0.64
		PM_{10}	0.15	0.64
		$PM_{2.5}$	0.05	0.21
16*	Gypsum Silo Baghouse Stack	PM	0.06	0.27
		PM_{10}	0.06	0.27
		$PM_{2.5}$	0.02	0.09
17*	Upper Clinker Silos Baghouse Stack	PM	0.23	0.99
		PM_{10}	0.23	0.99
		$PM_{2.5}$	0.07	0.33
18*	Gypsum Weigh Feeder Baghouse Stack	PM	0.08	0.36
		PM_{10}	0.08	0.36
		$PM_{2.5}$	0.03	0.12
19*	Clinker Feeder No. 7 Baghouse Stack	PM	0.07	0.32
		PM_{10}	0.07	0.32
		$PM_{2.5}$	0.02	0.11
20*	Clinker Feeder No. 1 Baghouse Stack	PM	0.07	0.32
		PM_{10}	0.07	0.32
		$PM_{2.5}$	0.02	0.11
21*	Clinker Feeder No. 6 Baghouse Stack	PM	0.07	0.32
		PM_{10}	0.07	0.32
		$PM_{2.5}$	0.02	0.11
22*	Clinker Feeder No. 4 Baghouse Stack	PM	0.07	0.32
		PM_{10}	0.07	0.32
		$PM_{2.5}$	0.02	0.11
23* & 29*	Finish Mill System No. 1 and No. 2 Baghouse Stack	PM	13.63	59.68
		PM_{10}	13.63	59.68
		$PM_{2.5}$	4.50	19.70

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
24*	Gypsum Weigh Feeder Baghouse Stack	PM	0.08	0.36
		PM_{10}	0.08	0.36
		$PM_{2.5}$	0.03	0.12
25*	Clinker Weigh Feeder No. 2 Baghouse Stack	PM	0.07	0.32
		PM_{10}	0.07	0.32
		$PM_{2.5}$	0.02	0.11
26*	Clinker Weigh Feeder No. 5 Baghouse Stack	PM	0.07	0.32
		PM_{10}	0.07	0.32
		$PM_{2.5}$	0.02	0.11
27*	Clinker Weigh Feeder No. 3 Baghouse Stack	PM	0.07	0.32
		PM_{10}	0.07	0.32
		$PM_{2.5}$	0.02	0.11
28*	Clinker Weigh Feeder No. 8 Baghouse Stack	PM	0.07	0.32
		PM_{10}	0.07	0.32
		$PM_{2.5}$	0.02	0.11
30*	Cement Silo No. 1 Discharge Baghouse Stack	PM	0.13	0.55
		PM_{10}	0.13	0.55
		$PM_{2.5}$	0.04	0.18
31*	Cement Silo No. 2 Discharge Baghouse Stack	PM	0.19	0.81
		PM_{10}	0.19	0.81
		$PM_{2.5}$	0.06	0.27
32*	Cement Silo No. 4 Discharge Baghouse Stack	PM	0.13	0.55
		PM_{10}	0.13	0.55
		$PM_{2.5}$	0.04	0.18
33*	Cement Silo No. 5 Discharge Baghouse Stack	PM	0.23	1.02
		PM_{10}	0.23	1.02
		$PM_{2.5}$	0.08	0.34

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
34*	Cement Silo No. 7 Discharge Baghouse Stack	PM	0.13	0.55
		PM_{10}	0.13	0.55
		$PM_{2.5}$	0.04	0.18
35*	Cement Silo No. 8 Discharge Baghouse Stack	PM	0.19	0.81
		PM_{10}	0.19	0.81
		$PM_{2.5}$	0.06	0.27
36*	Cement Silo No. 1 Filling Baghouse Stack	PM	0.57	2.49
		PM_{10}	0.57	2.49
		$PM_{2.5}$	0.19	0.82
37*	Cement Silo No. 7 Filling Baghouse Stack	PM	0.29	1.27
		PM_{10}	0.29	1.27
		$PM_{2.5}$	0.10	0.42
42*	Shale Crusher Discharge Baghouse Stack	PM	0.19	0.83
		PM_{10}	0.19	0.83
		$PM_{2.5}$	0.06	0.28
43*	Line No. 2 Raw Mill Feed Bins Baghouse Stack No. 1	PM	0.38	1.67
		PM_{10}	0.38	1.67
		$PM_{2.5}$	0.13	0.55
44*	Raw Mill Discharge Airslide Baghouse Stack	PM	0.12	0.52
		PM_{10}	0.12	0.52
		$PM_{2.5}$	0.04	0.17
45*	Kiln Feed System No. 1 Baghouse Stack	PM	0.14	0.62
		PM_{10}	0.14	0.62
		$PM_{2.5}$	0.05	0.21
46*	Blending Silo Upper Baghouse Stack	PM	0.12	0.52
		PM_{10}	0.12	0.52
		$PM_{2.5}$	0.04	0.17

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
47*	Blending Silo Lower Baghouse Stack	PM	0.24	1.04
		PM_{10}	0.24	1.04
		$PM_{2.5}$	0.08	0.34
48*	Kiln Feed System No. 2 Baghouse Stack	PM	0.14	0.62
		PM_{10}	0.14	0.62
		$PM_{2.5}$	0.05	0.21
49*	Pan Conveyor Under Clinker Cooler Baghouse Stack	PM	0.14	0.61
		PM_{10}	0.14	0.61
		$PM_{2.5}$	0.05	0.20
50*	Dust Bin Baghouse Stack	PM	0.14	0.62
		PM_{10}	0.14	0.62
		$PM_{2.5}$	0.05	0.21
51*	Clinker Silo No. 1 Discharge Baghouse Stack (North)	PM	0.03	0.15
		PM_{10}	0.03	0.15
		$PM_{2.5}$	0.01	0.05
52*	Clinker Silo No. 1 Discharge Baghouse Stack (South)	PM	0.03	0.15
		PM_{10}	0.03	0.15
		$PM_{2.5}$	0.01	0.05
53*	Slag/Gypsum Bins and Belt Discharge Baghouse Stack	PM	0.38	1.67
		PM_{10}	0.38	1.67
		$PM_{2.5}$	0.13	0.55
54*	Clinker Silo No. 2 Discharge Baghouse Stack (North)	PM	0.03	0.15
		PM_{10}	0.03	0.15
		$PM_{2.5}$	0.01	0.05
55*	Clinker Silo No. 2 Discharge Baghouse Stack (South)	PM	0.03	0.15
		PM_{10}	0.03	0.15
		$PM_{2.5}$	0.01	0.05

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
56*	Clinker Silo Feeder Baghouse Stack	PM	0.38	1.67
		PM_{10}	0.38	1.67
		$PM_{2.5}$	0.13	0.55
57*	Clinker Conveyor Transfer Point Baghouse Stack	PM	0.12	0.52
		PM_{10}	0.12	0.52
		$PM_{2.5}$	0.04	0.17
58*	Belt-Air-Slide Transfer Point 1 Baghouse Stack	PM	0.19	0.83
		PM_{10}	0.19	0.83
		$PM_{2.5}$	0.06	0.28
59*	Belt-Air-Slide Transfer Point 2 Baghouse Stack	PM	0.24	1.04
		PM_{10}	0.24	1.04
		$PM_{2.5}$	0.08	0.34
60*	Bulk Loading 1 Baghouse Stack	PM	0.26	1.15
		PM_{10}	0.26	1.15
		$PM_{2.5}$	0.09	0.38
61*	Truck Loadout- 1 Baghouse Stack	PM	<0.01	0.02
		PM_{10}	<0.01	0.02
		$PM_{2.5}$	<0.01	0.01
63*	Rail Loadout- 1 Baghouse Stack	PM	<0.01	0.02
		PM_{10}	<0.01	0.02
		$PM_{2.5}$	<0.01	0.01
64*	Coal Mill Conveyor Baghouse Stack	PM	0.12	0.52
		PM_{10}	0.12	0.52
		$PM_{2.5}$	0.04	0.17
65*	Truck Loadout- 2 Baghouse Stack	PM	<0.01	0.02
		PM_{10}	<0.01	0.02
		$PM_{2.5}$	<0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
66*	SKS & Cement Mill Baghouse Stack	PM	14.11	61.79
		PM_{10}	14.11	61.79
		$PM_{2.5}$	4.66	20.39
67*	Cement Silo Filling Baghouse Stack (North)	PM	0.15	0.64
		PM_{10}	0.15	0.64
		$PM_{2.5}$	0.05	0.21
68*	Cement Silo Filling Baghouse Stack (South)	PM	0.08	0.35
		PM_{10}	0.08	0.35
		$PM_{2.5}$	0.03	0.12
69*	Truck/Rail Loadout Baghouse	PM	0.09	0.41
		PM_{10}	0.09	0.41
		$PM_{2.5}$	0.03	0.14
70*	Truck/Rail Loadout Baghouse (North)	PM	0.09	0.41
		PM_{10}	0.09	0.41
		$PM_{2.5}$	0.03	0.14
71*	Air-Slide Conveyor Baghouse Stack	PM	0.24	1.04
		PM_{10}	0.24	1.04
		$PM_{2.5}$	0.08	0.34
72*	Pulverized Coal Bin Baghouse Stack	PM	0.01	0.05
		PM_{10}	0.01	0.05
		$PM_{2.5}$	<0.01	0.02
73*	Pulverized Coal Bin CO Analyzer Baghouse Stack	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
74*	Scrubber (Reagent-Feed) System 1- Line 1	PM	0.09	0.38
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.03	0.13

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
75A*	Primary (Lower Bench) Limestone Crusher	PM	0.28	0.25
		PM_{10}	0.13	0.12
		$PM_{2.5}$	0.13	0.12
75B*	Primary (Lower Bench) Limestone Crusher Engine	PM	0.39	1.71
		PM_{10}	0.39	1.71
		$PM_{2.5}$	0.39	1.71
		CO	8.23	36.05
		NO_x	6.64	29.08
		SO_2	0.90	3.94
		VOC	0.94	4.12
76*	Cooling Tower	PM	1.42	6.24
		PM_{10}	0.81	3.57
		$PM_{2.5}$	<0.01	0.01
77*	Line 1 Kiln Dust Bin Baghouse Stack	PM	0.48	2.10
		PM_{10}	0.48	2.10
		$PM_{2.5}$	0.16	0.69
78*	Line 2 Dust Bin Baghouse Stack	PM	0.48	2.10
		PM_{10}	0.48	2.10
		$PM_{2.5}$	0.16	0.69
79*	Line No. 2 Raw Mill Feed Bins Baghouse Stack No. 2	PM	0.39	1.69
		PM_{10}	0.39	1.69
		$PM_{2.5}$	0.13	0.56
80*	Line No. 1 Raw Mill Feed Bins Baghouse Stack No. 3	PM	0.09	0.38
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.03	0.13

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
81*	Clinker Silo De-Dusting Baghouse Stack No. 1	PM	0.11	0.50
		PM_{10}	0.11	0.50
		$PM_{2.5}$	0.04	0.16
82*	Clinker Silo De-Dusting Baghouse Stack No. 2	PM	0.11	0.50
		PM_{10}	0.11	0.50
		$PM_{2.5}$	0.04	0.16
84*	Raw Material Handling Baghouse Stack No. 1	PM	0.06	0.27
		PM_{10}	0.03	0.13
		$PM_{2.5}$	<0.01	0.02
PLANTFUG	Plant-Wide Fugitives (7)	PM	15.00	40.61
		PM_{10}	7.21	19.50
		$PM_{2.5}$	1.07	2.91
MSSFUG1	Inherently Low Emitting (ILE) Planned Maintenance Activities (7)	PM	14.69	0.41
		PM_{10}	6.93	0.16
		$PM_{2.5}$	1.06	0.03
		NO_x	0.03	0.02
		CO	0.34	0.04
		SO_2	<0.01	<0.01
		VOC	68.07	0.06
MSSFUG2	Non-ILE Planned Maintenance Activities (Vacuum truck loading and unloading) (7)	PM	6.18	1.78
		PM_{10}	3.19	1.24
		$PM_{2.5}$	0.66	0.45

(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

Emission Sources - Maximum Allowable Emission Rates

$PM_{2.5}$	- particulate matter equal to or less than 2.5 microns in diameter
CO	- carbon monoxide
HAP	- hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations (CFR) Part 63, Subpart C
TRS	- total reduced sulfur
H_2SO_4	- sulfuric acid
Speciated Compounds	- See Attachment I
OHAP	- organic hazardous air pollutants as defined in 40 CFR § 63.1341
Total OHAP	- sum of concentrations of compounds of formaldehyde, benzene, toluene, styrene, m-xylene, p-xylene, o-xylene, acetaldehyde, and naphthalene as measured by EPA Test Method 320 or Method 18, Appendix A, 40 CFR 60.

(4) Planned maintenance, startup, and shutdown (MSS) emissions are included.
(5) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
(6) Demonstration of compliance with 30-day rolling limit begins on first day of stated period. The control period for the March 31 limit effectively begins on March 1. Reference: 30 TAC § 117.3123.
(7) Emission rate is an estimate and is enforceable through compliance with the applicable special conditions and permit application representations.
(8) The hourly emission limit is based on a 30-day rolling emissions average. A 30-day rolling average is generated for each day as the average of all the day's hourly emission data and the preceding 29 days of hourly emission data (representing only those hours during kiln operation including all hours of planned maintenance, startup, and shutdown). The gaseous monitoring data shall be reduced to units of the permit allowable emission rate in lb/hr, calculated as a 30-day rolling average at least once every week.

Date: _____

Emission Sources - Maximum Allowable Emission Rates

ATTACHMENT I: Emission Sources - Maximum Allowable Emission Rates, Speciated Compounds

Emission Point No. (1)	Source Name (2)	Air Contaminant Name	Emission Rates	
			lbs/hour	TPY (3)
7*	Kiln No. 1 Main Bypass Baghouse, Coal Mill Baghouse and Scrubber Stack	Ammonia (24-hour rolling average)	24.46	--
		Ammonia	--	107.15
		Hydrogen Chloride (30-operating day rolling average excluding SU/SD)	4.49	--
		Hydrogen Chloride	--	19.66
		Mercury (30-operating day rolling average excluding SU/SD)	0.01	--
		Mercury	--	0.04
		Lead	0.02	0.08
62*	Kiln No. 2 Main Bypass Baghouse, Coal Mill Baghouse and Scrubber Stack	Ammonia (24-hour rolling avg.)	24.46	--
		Ammonia	--	107.15
		Hydrogen Chloride (30-operating day rolling average excluding SU/SD)	4.49	--
		Hydrogen Chloride	--	19.66
		Mercury (30-operating day rolling average excluding SU/SD)	0.01	--
		Mercury	--	0.04
		Lead	0.02	0.08

(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) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.

Date: August 18, 2016

Preliminary Determination Summary

Holcim (Us) Inc.
Permit Numbers 8996 and PSDTX454M5

I. Applicant

Holcim Us Inc
1800 Dove Ln
Midlothian, TX 76065-4435

II. Project Location

Portland Cement Plant
1800 Dove Ln
Ellis County
Midlothian, Texas 76065

III. Project Description

Holcim submitted an expedited amendment application to reflect the as-built construction and performance of the Line 2 Regenerative Thermal Oxidizer (RTO). Holcim is also seeking additional fuel flexibility for Line 2, requesting authorization for complete replacement of coal with petroleum coke in the Line 2 kiln. Additionally, Holcim proposes refinements in emission calculation methodologies and changes to optimize combustion in the Line 2 kiln. Maintenance, startup, and shutdown (MSS) is authorized by this permit.

IV. Emissions

Air Contaminant	Proposed Allowable Emission Rates (tpy)
PM	781.58
PM_{10}	756.61
$PM_{2.5}$	617.66
CO	7197.06

V. Federal Applicability

The following chart illustrates the annual project emissions for each pollutant and whether this pollutant triggers PSD or Nonattainment (NA) review.

Pollutant	Project Emissions (tpy)	Major Mod Trigger (tpy)	NA Triggered Y/N	PSD Triggered Y/N
CO	4,260	100	N	Y
PM	198.78	25	N	Y
PM_{10}	198.78	15	N	Y
$PM_{2.5}$	198.78	10	N	Y

Pollutant	Project Increase (tpy) [1]	NA Netting Trigger (tpy)	PSD Netting Trigger (tpy)	Netting Required Y/N	Net Emission Change (tpy) [2]	Major Mod Trigger (tpy)	PSD Triggered Y/N	NA Triggered Y/N
CO	4,260	N/A	100	Y	198.78	100	Y	N
PM	198.78	N/A	25	Y	198.78	25	Y	N
PM_{10}	198.78	N/A	15	Y	198.78	15	Y	N
$PM_{2.5}$ [4]	198.78	N/A	10	Y	4260	10	Y	N

[1] Project Increases: Comparison of Baseline Actual to PTE (or Projected Actual) Increases only

[2] Net Emissions: Baseline Actual to PTE (or Projected Actual) for the project currently under review, Baseline Actual to PTE for all other increases and decreases within netting window.

[3] Ozone precursor. Either pollutant precursor can trigger BACT/LAER and impacts analysis, as applicable.

[4] Use PM_{10} emissions only if $PM_{2.5}$ emissions cannot be quantified or estimated. ($PM_{2.5}$ Implementation Plan).

VI. Control Technology Review

Source Name	EPN	Best Available Control Technology Description
Cement Kiln 1		CO: Annual limit of 5.33 lb/ton clinker and good combustion practices; operation of the kiln and existing

Source Name	EPN	Best Available Control Technology Description
		TO at appropriate oxygen range and temperature to promote complete combustion and minimize CO formation.
Cement Kiln 2		CO: Annual limit of 5.33 lb/ton clinker and good combustion practices; operation of the kiln and existing TO at appropriate oxygen range and temperature to promote complete combustion and minimize CO formation. $PM/PM_{10}/PM_{2.5}$: Existing baghouse/fabric filter and wet scrubber with an annual limit of 0.44 lb total $PM/PM_{10}/PM_{2.5}$ per ton clinker

VII. Air Quality Analysis

The air quality analysis (AQA) is acceptable for all review types and pollutants. The results are summarized below.

A. De Minimis Analysis

A De Minimis analysis was initially conducted to determine if a full impacts analysis would be required. The De Minimis analysis modeling results indicate that 24-hr and annual $PM_{2.5}$ exceed the respective de minimis concentrations and require a full impacts analysis. The De Minimis analysis modeling results for 24-hr PM_{10} and 1-hr and 8-hr CO indicate that the project is below the respective de minimis concentrations and no further analysis is required.

The $PM_{2.5}$ De Minimis levels are the EPA recommended De Minimis levels. The use of the EPA recommended De Minimis levels is sufficient to conclude that a proposed source will not cause or contribute to a violation of a $PM_{2.5}$ NAAQS or $PM_{2.5}$ PSD increments based on the analyses documented in EPA guidance and policy memoranda[1].

While the De Minimis levels for both the NAAQS and increment are identical for $PM_{2.5}$ in the table below, the procedures to determine significance (that is, predicted concentrations to compare to the De Minimis levels) are different. This difference occurs because the NAAQS for $PM_{2.5}$ are statistically-based, but the corresponding increments are exceedance-based.

Since the project does not emit either precursor pollutant that leads to the formation of secondary $PM_{2.5}$ (NO_x and SO_2), secondary contributions of $PM_{2.5}$ are not expected.

[1] www.tceq.texas.gov/permitting/air/modeling/epa-mod-guidance.html

Table 1. Modeling Results for PSD De Minimis Analysis in Micrograms Per Cubic Meter (µg/m^3)

Pollutant	Averaging Time	GLCmax (µg/m^3)	De Minimis (µg/m^3)
PM_{10}	24-hr	3	5
PM_{10}	Annual	0.4	1
$PM_{2.5}$ (NAAQS)	24-hr	2.2	1.2
$PM_{2.5}$ (NAAQS)	Annual	0.3	0.2
$PM_{2.5}$ (Increment)	24-hr	2.7	1.2
$PM_{2.5}$ (Increment)	Annual	0.4	0.2
CO	1-hr	548	2000
CO	8-hr	306	500

The 24-hr and annual $PM_{2.5}$ (NAAQS) are based on the highest five-year averages of the maximum predicted concentrations determined for each receptor.

The GLCmax for all other pollutants and averaging times represent the maximum predicted concentrations over five years of meteorological data.

B. Air Quality Monitoring

The De Minimis analysis modeling results indicate that 24-hr PM_{10} and 8-hr CO are below their respective monitoring significance level.

Table 2. Modeling Results for PSD Monitoring Significance Levels

Pollutant	Averaging Time	GLCmax (µg/m^3)	Significance (µg/m^3)
PM_{10}	24-hr	3	10
CO	8-hr	306	575

The GLCmax for all pollutants and averaging times represent the maximum predicted concentrations over five years of meteorological data.

The applicant evaluated ambient $PM_{2.5}$ monitoring data to satisfy the requirements for the pre-application air quality analysis.

Background concentrations for $PM_{2.5}$ were obtained from the EPA AIRS monitor 481390016 located at 2725 Old Fort Worth Rd., Midlothian, Ellis County. The applicant used a three-year average (2017-2019) of the 98th percentile of the annual distribution of

the 24-hr concentrations for the 24-hr value (19.6 µg/m^3). The three-year average (2017-2019) of the annual concentrations was used for the annual value (8.7 µg/m^3). The monitoring data for the second quarter of 2019 did not meet completeness criteria. However, the monitoring data are valid based on the applicant's analysis using the substitution test procedures from Appendix N of 40 CFR Part 50. The use of the monitor is reasonable based on its proximity to the project site and the applicant's comparison of emissions within 10 kilometers (km) of the project site and the monitor. The background concentrations were also used in the PSD NAAQS analysis.

C. National Ambient Air Quality Standards (NAAQS) Analysis

The De Minimis analysis modeling results indicate that 24-hr and annual $PM_{2.5}$ exceed the respective de minimis concentration and require a full impacts analysis. The full NAAQS modeling results indicate the total predicted concentrations will not result in an exceedance of the NAAQS.

Table 3. Total Concentrations for PSD NAAQS (Concentrations > De Minimis)

Pollutant	Averaging Time	GLCmax (µg/m^3)	Background (µg/m^3)	Total Conc. = [Background + GLCmax] (µg/m^3)	Standard (µg/m^3)
$PM_{2.5}$	24-hr	11.9	19.6	31.5	35
$PM_{2.5}$	Annual	2.7	8.7	11.4	12

The 24-hr $PM_{2.5}$ GLCmax is the highest five-year average of the 98th percentile of the annual distribution of predicted 24-hr concentrations determined for each receptor.

The annual $PM_{2.5}$ GLCmax is the maximum five-year average of the annual concentrations determined for each receptor across five years of meteorological data.

D. Increment Analysis

The De Minimis analysis modeling results indicate that 24-hr and annual $PM_{2.5}$ exceed the respective de minimis concentrations and require a PSD increment analysis.

Table 4. Results for PSD Increment Analysis

Pollutant	Averaging Time	GLCmax (µg/m^3)	Increment (µg/m^3)
$PM_{2.5}$	24-hr	7.14	9
$PM_{2.5}$	Annual	2.64	4

The GLCmax for 24-hr $PM_{2.5}$ is the maximum high, second high (H2H) predicted concentration across five years of meteorological data.

For annual $PM_{2.5}$, the GLCmax is the highest annual predicted concentration associated with five years of meteorological data.

E. Additional Impacts Analysis

The applicant performed an Additional Impacts Analysis as part of the PSD AQA. The applicant conducted a growth analysis and determined that population will not significantly increase as a result of the proposed project. The applicant conducted a soils and vegetation analysis and determined that all evaluated criteria pollutant concentrations are below their respective secondary NAAQS. The applicant meets the Class II visibility analysis requirement by complying with the opacity requirements of 30 TAC Chapter 111. The Additional Impacts Analyses are reasonable and possible adverse impacts from this project are not expected.

The ADMT evaluated predicted concentrations from the proposed project to determine if emissions could adversely affect a Class I area. The nearest Class I area, Wichita Mountains (Charon Gardens Unit), is located approximately 289 km from the proposed site.

The predicted concentrations of PM_{10} and $PM_{2.5}$ for all averaging times, are all less than de minimis levels at a distance of four km from the proposed sources in the direction the Wichita Mountains (Charon Gardens Unit) Class I area. The Wichita Mountains (Charon Gardens Unit) Class I area is an additional 285 km from the location where the predicted concentrations of PM_{10} and $PM_{2.5}$ for all averaging times are less than de minimis. Therefore, emissions from the proposed project are not expected to adversely affect the Wichita Mountains (Charon Gardens Unit) Class I area.

F. Minor Source NSR and Air Toxics Review

No minor analysis or air toxics analysis was required with the project.

VIII. Conclusion

As described above, the applicant has demonstrated that the project meets all applicable rules, regulations and requirements of the Texas and Federal Clean Air Acts. The Executive Director’s preliminary determination is that the permits should be issued.