State of Utah
JON M. HUNTSMAN, JR.
Governor
GARY HERBERT
Lieutenant Governor

Department of
Environmental Quality
Richard W. Sprott
Executive Director
DIVISION OF AIR QUALITY
Cheryl Heying
Director

DAQE-AN0100070024-08

November 6, 2008

Keith Krugh
Holcim (US) Inc.
6055 East Croydon Road
Morgan, Utah 84050

Dear Mr. Krugh:

Re: Approval Order: Enhanced Approval Order Modification to DAQE-AN0007019-06 for Removal of PM_{10} Post Construction Monitoring and Paved Surface Silt Load Testing Requirements
Morgan County – CDS A; ATT; NSPS; NESHAPS; HAPs; TITLE V MAJOR
Project Code: N010007-0024

The attached document is the Approval Order for the above-referenced project.

Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any questions you may have on this project to Mr. Jon Black. He may be reached at (801) 536-4047.

Sincerely,

M. Cheryl Heying, Executive Secretary
Utah Air Quality Board

MCH:JB:sa

cc: Weber-Morgan Health Department
Mike Owens, EPA Region VIII

150 North 1950 West • Salt Lake City, UT
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STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

APPROVAL ORDER: Enhanced Approval Order Modification to DAQE-AN0007019-06 for Removal of PM_{10} Post Construction Monitoring and Paved Surface Silt Load Testing Requirements

Prepared By: Jon Black, Engineer
(801) 536-4047
Email: jlblack@utah.gov

APPROVAL ORDER NUMBER

DAQE-AN0100070024-08

Date: November 6, 2008

Holcim (US) Inc.

Source Contact
Kevin Ovard
(801) 829-2122

M. Cheryl Heying
Executive Secretary
Utah Air Quality Board

Abstract

Holcim (US) Inc. has requested a change to their Approval Order DAQE-AN0007019-06 for removal of the off-site post-construction monitoring of PM_{10} and silt loading level on paved surfaces requirements. Holcim (US) Inc. has completed the off-site monitoring and the results have been accepted and approved. From the data collected, Holcim (US) Inc.'s operation will not threaten the National Ambient Air Quality Standards for PM_{10}. Holcim (US) Inc. is located at 6055 E. Croydon Road, in Morgan County, which is an attainment area of the National Ambient Air Quality Standards (NAAQS) for all pollutants. New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP) and Maximum Achievable Control Technology (MACT) regulations apply to this source. Title V of the 1990 Clean Air Act applies to this source. The Title V operating permit for this source shall be amended prior to the approved changes taking effect. This is a Major Prevention of Significant Deterioration (PSD) source. This project will be considered an enhanced Approval Order modification.

The emissions will remain as follows, in tons per year, potential to emit totals: PM_{10} = 221, NO_x = 1825, SO_2 = 457, CO = 1820, VOC = 151.

The project has been evaluated and found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). A public comment period was held in accordance with UAC R307-401-7 and no comments were received. This air quality Approval Order authorizes the project with the following conditions, and failure to comply with any of the conditions may constitute a violation of this order.

General Conditions:

1. This Approval Order applies to the following company:

   Site Office

   Holcim (US) Inc.
   6055 E. Croydon Road
   Morgan, Utah 84050

   Phone Number: (801) 829-6821
   Fax Number: (801) 829-2100

   The equipment listed in this AO shall be operated at the following location:

   Plant Location:

   6055 E. Croydon Road, Morgan, Utah 84050

   Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27
   4,545.8 kilometers Northing, 455.4 kilometers Easting, Zone 12

2. Definitions of terms, abbreviations, and references used in this Approval Order (AO) conform to those used in the UAC R307, and Series 40 of the Code of Federal Regulations (40 CFR). These definitions take precedence, unless specifically defined otherwise herein.

Commented [JJ1]: Not a reqt

Commented [JJ2]: General reqt

3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.

Commented [JJ3]: General reqt

4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401.

Commented [JJ4]: General reqt

5. All records referenced in this AO or in applicable NSPS and/or NESHAP and/or MACT standards, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request. Records shall be kept for a minimum of five (5) years.

Commented [JJ5]: General reqt

6. Holcim (US) Inc. (Holcim) shall conduct its operations of the Devil's Slide Cement Plant in accordance with the terms and conditions of this AO, which was written pursuant to Holcim's Notice of Intent (NOI) submitted to the Division of Air Quality (DAQ) on June 3, 2008.

Commented [JJ6]: Not a reqt

7. This AO shall replace the AO DAQE-AN0007019-06 dated August 30, 2006.

Commented [JJ7]: Not a reqt

8. The approved installations and facilities shall consist of the following equipment or equivalent*:

Commented [JJ8]: Eqpt list

A. Five-stage suspension preheater kiln and "AS" precalciner using indirect coal firing

Control Method: Kiln Main Stack Baghouse 135,000 ACFM **
Control Method: Alkali By-Pass Baghouse 75,000 ACFM **

B. Clinker Cooler

Control Method: Cooler Baghouse 129,800 ACFM **

C. #1 Finish Mill

Control Method: #1 Separator Baghouse 48,000 ACFM **
Control Method: #1 Cement Mill Baghouse nuisance dust collector

D. #2 Finish Mill

Control Method: #2 Separator Baghouse 43,000 ACFM **
Control Method: #2 Cement Mill Baghouse 17,000 ACFM **

E. #3 Finish Mill

Control Method: #3 Separator Cyclone/Baghouse 4,706 ACFM **
Control Method: #3 Cement Mill Baghouse 25,588 ACFM **

F. Coal Mill

Control Method: Baghouse 28,000 ACFM **

G. Sixty-two additional baghouses of varying capacity for dust control. These include but are not limited to baghouses installed in the following areas:

Material Handling
Raw Material Grinding and Storage
Feeding
Cement and Clinker Storage

H. Various quarry drilling and blasting equipment

I. Haul trucks and front-end loaders

J. Various covered conveyors

K. Various materials handling equipment including: hoppers, blowers, ramps, covered storage, and piping

L. Two Diesel Powered Emergency Generators

* Equivalency shall be determined by the Executive Secretary.

** Flow rates are listed for informational purposes only.

Limitations and Test Procedures

9. Emissions to the atmosphere at all times from the indicated emission point shall not exceed the following rates and concentrations:

Commented [JJ9]: Main Kiln Stack Testing

Source: Kiln Main Stack Exhaust

Pollutant	lb/hr
PM_{10}	14
SO_2	475 lb/hr on a rolling 24-hour average
CO	438
NO_x	1,817 Tons/rolling 12-month period

10. Stack testing to show compliance with the emission limitations stated in the above condition shall be performed as specified below:

Commented [JJ10]: Main Kiln Stack Testing

A.

Emissions Point	Pollutant	Testing Status	Test Frequency
Kiln Main Stack	PM_{10}	*	@
	SO_2	*	##
	NO_x	*	##
	CO	*	#

B. Testing Status (To be applied above)

* The initial testing has already been performed.

@ Test every five years. The Executive Secretary may require testing at any time.

Test every two years. The Executive Secretary may require testing at any time.

Compliance for NO_x and SO_2 emissions shall be demonstrated through use of a continuous emissions monitoring system as outlined in Condition 24.

C. Notification

The Executive Secretary shall be notified at least 30 days prior to conducting any required emission testing. A source test protocol shall be submitted to DAQ when the testing notification is submitted to the Executive Secretary.

The source test protocol shall be approved by the Executive Secretary prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, and stack to be tested. A pretest conference shall be held, if directed by the Executive Secretary.

D. Sample Location

The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Executive Secretary. Access that meets the standards of the Occupational Safety and Health Administration (OSHA) or the Mine Safety and Health Administration (MSHA) shall be provided.

E. Volumetric Flow Rate

40 CFR 60, Appendix A, Method 2

F. PM_{10}

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a. The back half condensibles shall also be tested using the method specified by the Executive Secretary. All particulate captured shall be considered PM_{10}.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using the method specified by the Executive Secretary. The portion of the front half of

the catch considered PM_{10} shall be based on information in Appendix B of the fifth edition of the EPA document, AP-42, or other data acceptable to the Executive Secretary.

The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

G. Sulfur Dioxide (SO_2)

Continuous monitoring as outlined in Condition 24

H. Nitrogen Oxides (NO_x)

Continuous monitoring as outlined in Condition 24

I. Carbon Monoxide (CO)

40 CFR 60, Appendix A, Method 10

J. Calculations

To determine mass emission rates (lb/hr, etc.), the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary, to give the results in the specified units of the emission limitation.

K. Existing Source Operation

For an existing source/emission point, the production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years

11. Visible emissions from the following emission points shall not exceed the following values:

Commented [JJ11]: Source Opacity reqt

A. All kiln exhaust gases - 20% opacity

B. All other point sources - 10% opacity

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. All PM_{10} stack emission releases shall be vented vertically without any restriction to upward momentum at or beyond the stack opening.

12. The following production or emission limits shall not be exceeded:

Commented [JJ12]: Source Production reqt

A. 930,000 tons of clinker per rolling 12-month period

B. 457 tons of SO_2 per rolling 12-month period

C. Mining operations and transporting of materials from the mine to the plant shall be limited to between 5:00 AM and 8:00 PM each day.

Records of production shall be kept for all periods when the plant is in operation. Production shall be determined by maintenance of a supervisor log. Emission totals shall be determined through use of a Continuous Emissions Monitor as outlined in Condition 24. Compliance with the annual limitations shall be determined on a rolling 12-month total. Based on the twentieth day of each month a new 12-month total shall be calculated using the previous 12 months of kiln production and shall be kept for all periods when the plant is in operation.

13. The emergency generator hours of operation for maintenance purposes shall not exceed 60 hours total per 12-month period. Compliance with the annual limitation shall be determined on a rolling 12-month total. Based on the twentieth day of each month a new 12-month total shall be calculated using the previous 12 months of engine hours and shall be kept for all periods when the plant is in operation. Engine hours of operation shall be determined by examination of maintenance records, which shall be kept on site.

Commented [JJ13]: Emergency Gen

Roads and Fugitive Dust

14. All paved/unpaved roads and other operational areas that are used by mobile equipment shall be water sprayed, and/or chemically treated, and/or swept using a mobile sweeper to control fugitive dust. The application of water or chemical treatment shall be used for unpaved roads and unpaved operational areas. Treatment shall be of sufficient frequency and quantity to maintain the surface material in a damp/moist condition unless it is below freezing. The mobile sweeper shall operate as necessary to control visible fugitive dust emissions from paved surfaces. The opacity shall not exceed 20% during all times the areas are in use. Records of water, and/or chemical treatment, and/or mobile sweeping shall be kept for all periods when the plant is in operation. The records shall include the following items as applicable:

Commented [JJ14]: Quarry Roads and Mobile (profile?)

A. Date

B. Number of treatments made, dilution ratio, and quantity

C. Precipitation received, if any, and approximate amount

D. Time of day treatments were made

E. Records of temperature, if the temperature is below freezing

15. Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall not exceed 20% opacity at any point. Visible emission determinations shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Visible emissions shall be measured at the densest point of the plume but at a point not less than ½ vehicle length behind the vehicle and not less than ½ the height of the vehicle.

Commented [JJ15]: Ditto

16. The facility shall abide by all applicable requirements of UAC R307-205 for Fugitive Emission and Fugitive Dust sources. However, to be in compliance, this source must operate in accordance with the most current version of R307-205.

Commented [JJ16]: Ditto

17. A dust suppression system shall be installed at the following points to control fugitive emissions:

Commented [JJ17]: Ram Material handling BACT reqt (eqpt #3)

A. Crusher dump pocket – water spray

B. Conveyor transfer points – baghouse dust collectors

The system shall operate whenever dry conditions warrant or as determined necessary by the Executive Secretary.

Fuels

18. The owner/operator shall use only the following fuels in the kiln:

Commented [JJ18]: Fuels (add an activity row)

A. Coal

B. Diaper Derived Fuel (DDF)

C. Tire Derived Fuel (TDF)

D. Natural Gas

E. Coke

F. Fuel Oil

G. Used Oil

H. Synthetic Fuel

I. Wood

J. Coal Additives as defined in Condition 19

If any other fuel is to be used, an AO shall be required in accordance with R307-401, UAC.

19. The coal additives listed in Condition 18.J shall consist of alternative fuels approved by the Executive Secretary. Prior to burning any proposed coal additive, Holcim shall obtain approval from the Executive Secretary. To obtain approval, Holcim shall submit Material Safety Data Sheets (MSDS) or the results of suitable tests giving data similar to a Proximate and Ultimate analysis of the proposed coal additive.

Commented [JJ19]: More fuels

Approval by the Executive Secretary shall consist of a letter approving the use of the proposed coal additive. Approval is not required to change from one previously approved coal additive to another previously approved coal additive.

The average quantity of coal additives burned shall not be greater than 15% of the total daily heat input of the kiln and precalciner. Holcim may increase the average quantity of coal additives up to 25% of the total daily heat input of the kiln and precalciner upon approval by the Executive Secretary in accordance with the approval process described in this Condition 19.

20. The sulfur content of any coal or mixture of coals burned shall not exceed 1.0 pound of sulfur per million BTUs of heat input. The sulfur content of any fuel oil or diesel burned shall not exceed 0.85 pounds sulfur per million gross BTUs heat input. If any type of fuel is desired to be used that has a higher sulfur content, an AO shall be required in accordance with R307-401, UAC.

Commented [JJ20]: More fuels

Methods for determining sulfur content of coal and fuel oil shall be those methods of the American Society for Testing and Materials, UAC R307-203-1 (4)

A. For determining sulfur content in coal, ASTM Methods D3177-75 or D4239-85 are to be used.

B. For determining sulfur content in oil, ASTM Methods D2880-71 or D4294-89 are to be used.

C. For determining the gross calorific (or BTU) content of coal, ASTM Methods D2015-77 or D3286-85 are to be used.

21. The concentration/parameters of contaminants in any used oil fuel shall not exceed the following levels:

Commented [JJ21]: More fuels

1)	Arsenic	5	ppm by weight
2)	Cadmium	2	ppm by weight
3)	Chromium	10	ppm by weight
4)	Lead	100	ppm by weight
5)	Total halogens	1,000	ppm by weight
6)	Sulfur	0.5	percent by weight

A. The flash point of all used oil to be burned shall not be less than 100 °F.

B. The owner/operator shall provide test certification for each load of used oil fuel received. Certification shall be either by their own testing or test reports from the used oil fuel marketer. Records of used oil fuel consumption and the test reports shall be kept for all periods when the plant is in operation.

C. Used oil that does not exceed any of the listed contaminants content may be burned. The owner/operator shall record the quantities of oil burned on a daily basis.

D. Any used oil fuel that contains more than 1000 ppm by weight of total halogens shall be considered a hazardous waste and shall not be burned in the kiln. The oil shall be tested for halogen content by ASTM Method D-808-81, EPA Method 8240 or Method 8260 before used oil fuel is transferred to the day tank and burned.

E. Sources utilizing used oil as a fuel shall comply with the State Division of Solid and Hazardous Waste in accordance with R315-15, UAC.

Federal Limitations and Requirements

22. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, NSPS Subpart A, 40 CFR 60.1 to 60.18, Subpart F, 40 CFR 60.60 to 60.66 (Standards of Performance for Portland Cement Plants), Subpart Y, 40 CFR 60.250 to 60.254 (Standards of Performance for Coal Preparation Plants, and Subpart OOO, 40 CFR 60.670 to 60.676 (Standards of Performance for Nonmetallic Mineral Processing Plants) apply to this installation. To be in compliance, this facility must operate in accordance with the most current version of 40 CFR 60 applicable to this source.

Commented [JJ22]: Fed reqt applicibility

23. In addition to the requirements of this AO, all applicable provisions of 40 CFR 63, National Emission Standards for Hazardous Air Pollutants for Source Categories Subpart A, 40 CFR 63.1 to 63.15 and Subpart LLL, 40 CFR 63.1340 to 63.1359 (National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry) apply to this installation. To be in compliance, this facility must operate in accordance with the most current version of 40 CFR 63 applicable to this source.

Commented [JJ23]: ditto

Monitoring - Continuous Emissions Monitoring

24. Compliance with the NO_x and SO_2 emission limitations in Conditions 9 and 12 will be through use of a continuous emissions monitoring system. The owner/operator shall install, calibrate, maintain, and continuously operate a continuous emissions monitoring system on the kiln main stack. The owner/operator shall record the output of the system, for measuring the NO_x and SO_2 emissions. The monitoring system shall comply with all applicable sections of R307-170, UAC; 40 CFR 51, Appendix P; and 40 CFR 60, Appendix B. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the owner/operator of an affected source shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section UAC R307-170.

Commented [JJ24]: More stack testing – CEM

Records & Miscellaneous

25. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance

Commented [JJ25]: General reqt

procedures, and inspection of the source. All maintenance that may affect air emissions performed on equipment authorized by this AO shall be recorded, and the records shall be maintained for a period of two years.

26. The owner/operator shall comply with UAC, R307-150 Series. Inventories, Testing and Monitoring. To be in compliance, this facility must operate in accordance with the most current version of the UAC, R307-150 series.

Commented [JJ26]: Also general

27. The owner/operator shall comply with R307-107, UAC, General Requirements: Unavoidable Breakdown. To be in compliance, this facility must operate in accordance with the most current version of the UAC, R307-107.

Commented [JJ27]: Also general

The Executive Secretary shall be notified in writing if the company is sold or changes its name. This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including UAC R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the DAQ. The UAC R307 rules used by DAQ, the NOI guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:

http://www.airquality.utah.gov/

The annual emissions estimations below include point source and fugitive emissions. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, Non-attainment area, Maintenance area, and Title V source requirements of R307. They are not to be used for determining compliance.

Annual emissions for this source (the entire plant) are currently calculated at the following values:

	Pollutant	Tons/yr
A.	PM_{10}	221
B.	SO_2	457
C.	NO_x	1,825
D.	CO	1,820
E.	VOC	151

State of Utah

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Department of
Environmental Quality

L. Scott Baird
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-GN100070027-20

January 23, 2020

Kimberly Dennis
Holcim (US) Inc.
6055 E. Croydon Road
Morgan, UT 84050

Dear Ms. Dennis:

RE: Use of Poly Scrap Alternative Fuel – CDS A; Major HAP Source, Compliance Assurance Monitoring (CAM), Title V (Part 70) Major Source
Project Number: N100070027

The Division of Air Quality (DAQ) has reviewed your letter of June 26, 2019 requesting the use of alternative materials as fuel at Holcim's Morgan Cement Plant.

Holcim's current Approval Order (DAQE AN0100070024-08) allows the use of alternative fuels pending approval from the Director. DAQ has determined the proposed fuels, specifically poly scrap and plastic films, qualify as coal additives as defined under Condition #19 of that Approval Order. Holcim Inc. may use these alternative fuels specified in the June 26, 2019 letter as fuel materials within your particular process under the limitations outlined in DAQE AN0100070024-08. No Approval Order change is required. There will be no change in emission quality or quantity as a result of this change.

As there are no anticipated changes to air emissions as a result of this process modification, there are no required changes to DAQE-AN0100070024-08. Should you have any further questions in regards to this project, please feel free to contact Mr. John D. Jenks at (801) 536-4459.

Sincerely,

Bryce C. Bird
Director

BCB:JJ:sa

State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

L. Scott Baird
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

RN100070027

October 6, 2020

Paul Rogers
Holcim (US) Inc.
6055 E. Croydon Road
Morgan, UT 84050

Dear Paul Rogers,

Re: Engineer Review:
Modification of DAQE-AN0100070024-08 to Change Opacity Monitoring Requirements
Project Number: N100070027

The DAQ requests a company representative (Title V Responsible Official for enhanced Approval Order application) review and sign the attached Engineer Review (ER). This ER identifies all applicable elements of the New Source Review permitting program. Holcim (US) Inc. should complete this review within **10 business days** of receipt.

Holcim (US) Inc. should contact **John Jenks** at (385) 306-6510 if there are questions or concerns with the review of the draft permit conditions. Upon resolution of your concerns, please email jjenks@utah.gov the signed cover letter to John Jenks. Upon receipt of the signed cover letter, the DAQ will prepare an ITA for a 30-day public comment period. At the completion of the comment period, the DAQ will address any comments and will prepare an AO for signature by the DAQ Director.

If Holcim (US) Inc. does not respond to this letter within **10 business days,** the project will move forward without source concurrence. If Holcim (US) Inc. has concerns that cannot be resolved and the project becomes stagnant, the DAQ Director may issue an Order prohibiting construction.

Approval Signature _____
(Signature & Date)

☐ By (Title V responsible official) initialing this box and signing this document, this document serves as an enhanced application and the public comment period will serve as the required comment period for Title V purposes.

The Title V responsible official certifies: based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

UTAH DIVISION OF AIR QUALITY
ENGINEER REVIEW

SOURCE INFORMATION

Project Number	N100070027
Owner Name	Holcim (US) Inc.
Mailing Address	6055 E. Croydon Road Morgan, UT, 84050
Source Name	Holcim (US) Inc.- Devil's Slide Plant
Source Location	6055 E. Croydon Rd. Morgan, UT 84050
UTM Projection	455,500 m Easting, 4,545,500 m Northing
UTM Datum	NAD27
UTM Zone	UTM Zone 12
SIC Code	3241 (Cement, Hydraulic)
Source Contact	Kimberly Dennis
Phone Number	(801) 829-6821
Email	kimberly.dennis@lafargeholcim.com
Project Engineer	John Jenks, Engineer
Phone Number	(385) 306-6510
Email	jjenks@utah.gov
Notice of Intent (NOI) Submitted	June 26, 2019
Date of Accepted Application	No date entered

SOURCE DESCRIPTION

General Description
Holcim (US) Inc. operates the Devil's Slide cement manufacturing plant near Morgan, Utah. This plant has been in operation since 1947, with recent major modifications made to most of the process during 1996 and 1997. At the Devil's Slide plant, cement is made when raw materials such as limestone & sandstone (quarried on-site), iron ore, and gypsum are proportioned, ground, mixed and then fed into a rotating kiln. The heat of the kiln alters the materials and recombines them into small stones called cement clinker. The clinker is cooled and ground with gypsum into a fine powdered cement. The final product is stored on site for later packaging and shipping. The sources of air emissions are the combustion of fuels for the kiln operation and from the kiln and clinker cooling process.

NSR Classification:
Minor Modification at Major Source

Source Classification
Located in
Morgan County
Airs Source Size: A

Applicable Federal Standards
Title V (Part 70) Major Source

Project Proposal
Modification of DAQE-AN0100070024-08 to Change Opacity Monitoring Requirements

Project Description
Holcim (US) Inc. (Holcim) has requested removal of the current opacity monitoring requirements listed in its Title V permit as conditions II.B.6.a and II.B.7.b. These opacity limitations, originally established as BACT requirements, predate the source becoming subject to the Portland Cement (PC) MACT (40 CFR 63 Subpart LLL). The opacity requirements are listed in the current AO. The PC MACT includes direct emission limits on PM as well as requiring the use of a CPMS (continuous parameter monitoring system) for compliance. The PC MACT requirements have been included in the existing AO only by reference. In addition to the monitoring, recordkeeping and reporting requirements already associated with the PM emission limits, an annual stack test is required to validate operation of the CPMS. EPA has required the use of emission limits and a CPMS in lieu of opacity requirements monitored by COMS units. The use of a COMS unit to monitor opacity is redundant. The direct emission limitation and CPMS are both more reliable and more informative.

The use of alternative fuels; and the coal additives conditions have been updated to include the use of poly scrap and plastic films.

The AO will also be updated in layout, format and style to match current UDAQ guidelines, and any necessary updates to rule references or condition language will also be made.

EMISSION IMPACT ANALYSIS

There is no change in emissions resulting from this permitting change. The owner/operator has requested the removal of opacity requirements. As there is no change in emissions, the project does not trigger any

provisions of R307-410-4 or R307-410-5 by definition. Therefore, no modeling is required for this project. [Last updated June 30, 2020]

SUMMARY OF EMISSIONS

The emissions listed below are an estimate of the total potential emissions from the source. Some rounding of emissions is possible.

Criteria Pollutant	Change (TPY)	Total (TPY)
Carbon Monoxide	0	1820.00
Nitrogen Oxides	0	1825.00
Particulate Matter - PM_{10}	0	221.00
Particulate Matter - $PM_{2.5}$	0	50.00
Sulfur Dioxide	0	457.00
Volatile Organic Compounds	0	151.00

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
Generic HAPs (CAS #GHAPS)	0	11380
Hydrochloric Acid (Hydrogen Chloride) (CAS #7647010)	0	13820
	Change (TPY)	**Total (TPY)**
Total HAPs		12.60

Note: Change in emissions indicates the difference between previous AO and proposed modification.

Review of BACT for New/Modified Emission Units

1. **BACT review regarding for the addition of alternative fuel types under condition 18 (now renumbered)**
Under DAQE-AN0100070024-08, Holcim was allowed a set list of alternative fuels (Condition #18), plus the ability to burn a specific percentage of additional alternative fuels upon receiving conditional approval from UDAQ (Condition #19). Holcim has requested to expand the list of pre-approved alternative fuels to include both poly scrap and plastic films. Holcim received approval for the use of these two materials under the terms of Condition #19 on January 23, 2020. At that time, UDAQ agreed that the materials satisfied both the terms of Condition #19, and that no change in emission quantity or quality would result from the use of these fuels. The source is capable of accommodating the new fuels with no change in equipment, and as no increase in emissions is expected to take place, this project does not trigger a modification under R307-401 or the definitions of 40 CFR 60 (NSPS) or 40 CFR 61 or 63 (NESHAP). No further analysis is required at this time. The NSR section submits that the addition of the new fuels meets BACT. [Last updated July 1, 2020]

SECTION I: GENERAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO. **(New or Modified conditions are indicated as "New" in the Outline Label):**

I.1	All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]
I.2	The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]
I.3	Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]
I.4	All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Director or Director's representative upon request, and the records shall include the five-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of five (5) years. [R307-401-8]

I.5	At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]
I.6	The owner/operator shall comply with UAC R307-107. General Requirements: Breakdowns. [R307-107]
I.7	The owner/operator shall comply with UAC R307-150 Series. Emission Inventories. [R307-150]

SECTION II: PERMITTED EQUIPMENT

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO. **(New or Modified conditions are indicated as "New" in the Outline Label):**

II.A THE APPROVED EQUIPMENT

II.A.1 NEW	**Permitted Source** Source-wide
II.A.2 NEW	**Raw Materials: Quarry Operations & Stockpiles** Drilling operations, rock blasting, truck loading, rock fall from dozer push, haul roads, limestone & sand storage piles and Cement Kiln Dust (CKD) storage pile. The drill rig is equipped with a baghouse.
II.A.3 NEW	**Raw Materials: Impact Crusher & Conveying** Dump pocket/feeder (#211-AF1), impact crusher, conveyors and associated transfer points, with emissions controlled by baghouses (#291-BFx) or enclosures.
II.A.4 NEW	**Raw Materials: Preblending Hall** Limestone & sandstone are pre-blended in an enclosed blending hall. No unit-specific applicable requirements.
II.A.5 NEW	**Raw Materials: Raw Meal Preparation System** Equipment used in preparation of kiln feed (raw meal), including material transfer points, conveyors, bag filters, bins. (HAC #31x-xxx to 39x-xxx excluding #361-RM1)
II.A.6 NEW	**Coal Ops: Milling, Processing & Conveying** Equipment for the handling, conveying, storage and milling of coal. Emissions are controlled by baghouses: HAC #L61-BF1 (mill discharge) and #L91-BF1 (bin vent). Equipment does not include conveying system used to convey coal from the mill to the kiln.
II.A.7 NEW	**Coal Ops: Transfer Equipment** Equipment in the clinker manufacturing system for transfers from coal mill to the kiln (HAC #L91-xxx).
II.A.8 NEW	**Kiln System: Clinker Manufacture - MHO** Equipment for the calcination of raw material, including material transfer points, conveyors, bag filters, bins (HAC #411-xxx, 431-xxx, 4A1-xxx except 4A1-BFx).

II.A.9 NEW	**Kiln System: In-Line Kiln/Raw Mill** Emissions from five-stage kiln system (HAC #441-xxx, 461-xxx) and raw mill (#361-RM1) are controlled by main baghouse (#421-BF1). Alkali bypass emissions are controlled by baghouse (#4A1-BF1). Both baghouses exit through the main stack.
II.A.10 NEW	**Cooler System: Clinker Cooler** Grate cooler (#417-GQ1) for cooling clinker, controlled by baghouse (#471-BF1).
II.A.11 NEW	**Cooler System: Clinker Cooler System - MHO** Transfer equipment and dust control for clinker cooler system. (HAC #47x-xxx to 49x-xxx excluding 471-BF1, 471-GQ1).
II.A.12 NEW	**Cooler System: Finish Mill Operations** Equipment for grinding of clinker and additive addition, including material transfer points, conveyors, bag filters, bins. (HAC #52x-xxx to 59x-xxx, K93-xxx & T93-xxx)
II.A.13 NEW	**Supplemental: Packing & Distribution System** Equipment for shipping of cement products: conveyor transfer points, bins, bag filters and other miscellaneous transfer points. (HAC #61x-xxx to 6Ex-xxx)
II.A.14 NEW	**Supplemental: Material Handling - Group 1** All totally-enclosed storage bins, conveying system transfer points, bagging systems, and bulk loading/unloading systems identified in 40 CFR 63.1340, Subpart LLL as affected sources.
II.A.15 NEW	**Supplemental: Material Handling - Group 2** All partially-enclosed or unenclosed storage bins, conveying system transfer points, bagging systems, and bulk loading/unloading systems identified in 40 CFR 63.1340, Subpart LLL as affected sources. This unit also includes partially- or totally-enclosed storage bins, conveying system transfer points, bagging systems, and bulk loading/unloading systems identified in 40 CFR 63.1340, Subpart LLL as affected sources and that are equipped with a control device (PMCD).
II.A.16 NEW	**Supplemental: Emergency Generators** Two diesel-powered emergency backup generators, approx 755 HP and 166 HP. The 166 HP unit is subject to 40 CFR 63 Subpart ZZZZ requirements.

SECTION II: SPECIAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO. **(New or Modified conditions are indicated as "New" in the Outline Label):**

II.B REQUIREMENTS AND LIMITATIONS

II.B.1 NEW	**Conditions on Permitted Source**
II.B.2 NEW	**Fuel Requirements**
II.B.2.a NEW	The owner/operator shall only use diesel fuel (e.g. fuel oil #1, #2, or diesel fuel oil additives) as fuel in the emergency generators (II.A.XXX). [R307-401-8]
II.B.2.b NEW	The owner/operator shall only combust diesel fuel that meets the definition of ultra-low sulfur diesel (ULSD), which has a sulfur content of 15 ppm or less. [R307-401-8]

II.B.2.b.1 NEW	To demonstrate compliance with the ULSD fuel requirement, the owner/operator shall maintain records of diesel fuel purchase invoices or obtain certification of sulfur content from the diesel fuel supplier. The diesel fuel purchase invoices shall indicate that the diesel fuel meets the ULSD requirements. [R307-401-8]
II.B.2.c NEW	The owner/operator shall use only the following fuels in the kiln: A. Coal B. Diaper Derived Fuel (DDF) C. Tire Derived Fuel (TDF) D. Natural Gas E. Coke F. Fuel Oil G. Used Oil H. Synthetic Fuel I. Wood J. Any Non-Recyclable plastics, paper, and fibers from Municipal Solid Waste, Commercial or Industrial Waste recycling centers; or as byproducts from manufacturing facilities that meet the definition of Non-Hazardous Secondary materials under 40 CFR part 241. Examples include but are not limited to manufactured waste plastics, cellulose products, poly scrap and plastic films from the recycling of paperboard materials. K. Coal Additives as defined in Condition II.B.2.c.1. [R307-401-8(1)(a)]
II.B.2.c.1 NEW	The coal additives listed above shall consist of alternative fuels approved by the Director. Prior to burning any proposed coal additive, the owner/operator shall obtain approval from the Director. To obtain approval, the owner/operator shall submit Material Safety Data Sheets (MSDS) or the results of suitable tests giving data similar to a Proximate and Ultimate analysis of the proposed coal additive. Approval by the Director shall consist of a letter approving the use of the proposed coal additive. Approval is not required to change from one previously approved coal additive to another previously approved coal additive. The average quantity of coal additives burned shall not be greater than 15% of the total daily heat input of the kiln and precalciner. The owner/operator may increase the average quantity of coal additives up to 25% of the total daily heat input of the kiln and precalciner upon approval by the Director in accordance with the approval process described herein. [R307-401-8(1)(a)]

II.B.2.d NEW	The sulfur content of any coal or mixture of coals burned in the kiln shall not exceed 1.0 pound of sulfur per million BTUs of heat input. The sulfur content of any fuel oil burned in the kiln shall not exceed 0.85 pounds sulfur per million gross BTUs heat input. If any type of fuel is desired to be used that has a higher sulfur content, an AO shall be required in accordance with R307-401, UAC. Methods for determining sulfur content of coal and fuel oil shall be those methods of the American Society for Testing and Materials, UAC R307-203-1 (4) A. For determining sulfur content in coal, ASTM Methods D3177-75 or D4239-85 are to be used. B. For determining sulfur content in oil, ASTM Methods D2880-71 or D4294-89 are to be used. C. For determining the gross calorific (or BTU) content of coal, ASTM Methods D2015-77 or D3286-85 are to be used. [R307-401-8(1)(a)]
II.B.2.e NEW	The concentration/parameters of contaminants in any used oil fuel shall not exceed the following levels: 1) Arsenic: 5 ppm by weight 2) Cadmium: 2 ppm by weight 3) Chromium: 10 ppm by weight 4) Lead: 100 ppm by weight 5) Total halogens: 1,000 ppm by weight 6) Sulfur: 0.5 percent by weight A. The flash point of all used oil to be burned shall not be less than 100 °F. B. The owner/operator shall provide test certification for each load of used oil fuel received. Certification shall be either by their own testing or test reports from the used oil fuel marketer. Records of used oil fuel consumption and the test reports shall be kept for all periods when the plant is in operation. C. Used oil that does not exceed any of the listed contaminants content may be burned. The owner/operator shall record the quantities of oil burned on a daily basis. D. Any used oil fuel that contains more than 1000 ppm by weight of total halogens shall be considered a hazardous waste and shall not be burned in the kiln. The oil shall be tested for halogen content by ASTM Method D-808-81, EPA Method 8240 or Method 8260 before used oil fuel is transferred to the day tank and burned. E. Sources utilizing used oil as a fuel shall comply with the State Division of Solid and Hazardous Waste in accordance with R315-15, UAC. [R307-401-8]
II.B.3 NEW	**Emergency Engine Requirements**

II.B.3.a NEW	The owner/operator shall not operate each emergency engine on site for more than 100 hours per calendar year during non-emergency situations. There is no time limit on the use of the engines during emergencies. [40 CFR 60 Subpart ZZZZ, R307-401-8]
II.B.3.a.1 NEW	To determine compliance with the annual operation limitation, records documenting the operation of each emergency engine shall be kept in a log and shall include the following: a. The date the emergency engine was used b. The duration of operation in hours c. The reason for the emergency engine usage. [40 CFR 60 Subpart ZZZZ, R307-401-8]
II.B.3.a.2 NEW	To determine the duration of operation, the owner/operator shall install a non-resettable hour meter for each emergency engine. [R307-401-8, 40 CFR 63 Subpart ZZZZ]

PERMIT HISTORY

When issued, the approval order shall supersede (if a modification) or will be based on the following documents:

Is Derived From	Source Submitted NOI dated August 7, 2019
Replaces	DAQE-AN0100070024-08 dated November 6, 2008

REVIEWER COMMENTS

1. **Comment regarding update to existing AO:**
Holcim has been operating under AO DAQE-AN0100070024-08. Holcim requested the removal of the opacity requirements in existing AO condition #11, and add an alternative fuel to the alternative fuels list. The opacity requirements have been made redundant with the opacity monitoring requirements included in 40 CFR 63 Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Industry (the PC MACT). The requirements of Subpart LLL are applicable to the Holcim facility, and Holcim complies with the specific particulate matter emission limits through the use of a continuous parametric monitoring system, and routine performance stack testing on the kiln and clinker cooler. The new additional fuels were previously approved on a conditional basis through the provisions of Condition #19, as outlined in Holcim's existing AO DAQE-AN0100070024-08. The new additional fuels meet the definition of BACT, and their use will not result in an increase in emissions. The source is capable of accommodating both fuels with no physical change in equipment or processes; thus, this project does not constitute a modification under the definitions of either UAC Rules R307-401, or 40 CFR 60 (NSPS) or 40 CFR 61 or 63 (NESHAP).

   UDAQ has significantly changed the permit structure and layout since 2008 when Holcim's last AO was issued. As a result, UDAQ is taking this opportunity to update the AO format to match the current modernized template. A number of conditions will be updated to address changes in the UAC R307 rules. Where necessary, other conditions may be altered to address corrections in formatting, style modifications, adding clarity or correcting errors, and to remain consistent with internal cross-referencing as required.

   [Last updated July 1, 2020]

2. **Comment regarding Change in allowed fuels:**
Holcim has requested a change in the list of allowed fuels. Under this request the current fuel list will be expanded to include the following:

   Any Non-Recyclable plastics, paper, and fibers from Municipal Solid Waste, Commercial or Industrial Waste recycling centers; or as byproducts from manufacturing facilities that meet the definition of Non-Hazardous Secondary materials under 40 CFR part 241. Examples include but are not limited to manufactured waste plastics, cellulose products, poly scrap and plastic films from the recycling of paperboard materials.

   UDAQ has reviewed the additional materials and Holcim's analysis under the terms of conditions 18 and 19 of Holcim's current AO (DAQE-AN0100070024-08). DAQ agrees that the additional fuels meet the requirements for approval and will add the suggested language. The existing coal additives language will remain in place - should Holcim desire to pursue additional fuel additives in the future.
   [Last updated October 6, 2020]

ACRONYMS

The following lists commonly used acronyms and associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by EPA to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent - 40 CFR Part 98, Subpart A, Table A-1
COM	Continuous opacity monitor
DAQ/UDAQ	Division of Air Quality
DAQE	This is a document tracking code for internal UDAQ use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - 40 CFR 52.21 (b)(49)(i)
GWP	Global Warming Potential - 40 CFR Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/HR	Pounds per hour
LB/YR	Pounds per year
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO_x	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM_{10}	Particulate matter less than 10 microns in size
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO_2	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
VOC	Volatile organic compounds

State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

L. Scott Baird
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

RN100070027

November 3, 2020

Paul Rogers
Holcim (US) Inc.
6055 E. Croydon Road
Morgan, UT 84050

Dear Paul Rogers,

Re: Engineer Review:
Modification of DAQE-AN0100070024-08 to Change Opacity Monitoring Requirements
Project Number: N100070027

The DAQ requests a company representative (Title V Responsible Official for enhanced Approval Order application) review and sign the attached Engineer Review (ER). This ER identifies all applicable elements of the New Source Review permitting program. Holcim (US) Inc. should complete this review within **10 business days** of receipt.

Holcim (US) Inc. should contact **John Jenks** at (385) 306-6510 if there are questions or concerns with the review of the draft permit conditions. Upon resolution of your concerns, please email jjenks@utah.gov the signed cover letter to John Jenks. Upon receipt of the signed cover letter, the DAQ will prepare an ITA for a 30-day public comment period. At the completion of the comment period, the DAQ will address any comments and will prepare an AO for signature by the DAQ Director.

If Holcim (US) Inc. does not respond to this letter within **10 business days,** the project will move forward without source concurrence. If Holcim (US) Inc. has concerns that cannot be resolved and the project becomes stagnant, the DAQ Director may issue an Order prohibiting construction.

Approval Signature _____
(Signature & Date)

☐ By (Title V responsible official) initialing this box and signing this document, this document serves as an enhanced application and the public comment period will serve as the required comment period for Title V purposes.

The Title V responsible official certifies: based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

UTAH DIVISION OF AIR QUALITY
ENGINEER REVIEW

SOURCE INFORMATION

Project Number	N100070027
Owner Name	Holcim (US) Inc.
Mailing Address	6055 E. Croydon Road Morgan, UT, 84050
Source Name	Holcim (US) Inc.- Devil's Slide Plant
Source Location	6055 E. Croydon Rd. Morgan, UT 84050
UTM Projection	455,500 m Easting, 4,545,500 m Northing
UTM Datum	NAD27
UTM Zone	UTM Zone 12
SIC Code	3241 (Cement, Hydraulic)
Source Contact	Kimberly Dennis
Phone Number	(801) 829-6821
Email	kimberly.dennis@lafargeholcim.com
Project Engineer	John Jenks, Engineer
Phone Number	(385) 306-6510
Email	jjenks@utah.gov
Notice of Intent (NOI) Submitted	June 26, 2019
Date of Accepted Application	April 16, 2020

SOURCE DESCRIPTION

General Description
Holcim (US) Inc. operates the Devil's Slide cement manufacturing plant near Morgan, Utah. This plant has been in operation since 1947, with recent major modifications made to most of the process during 1996 and 1997. At the Devil's Slide plant, cement is made when raw materials such as limestone & sandstone (quarried on-site), iron ore, and gypsum are proportioned, ground, mixed and then fed into a rotating kiln. The heat of the kiln alters the materials and recombines them into small stones called cement clinker. The clinker is cooled and ground with gypsum into a fine powdered cement. The final product is stored on site for later packaging and shipping. The sources of air emissions are the combustion of fuels for the kiln operation and from the kiln and clinker cooling process.

NSR Classification:
Minor Modification at Major Source

Source Classification
Located in
Morgan County
Airs Source Size: A

Applicable Federal Standards
NSPS (Part 60), A: General Provisions
NSPS (Part 60), F: Standards of Performance for Portland Cement Plants
NSPS (Part 60), Y: Standards of Performance for Coal Preparation and Processing Plants
NSPS (Part 60), OOO: Standards of Performance for Nonmetallic Mineral Processing Plants
MACT (Part 63), A: General Provisions
MACT (Part 63), LLL: National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry
MACT (Part 63), ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
Title V (Part 70) Major Source

Project Proposal
Modification of DAQE-AN0100070024-08 to Change Opacity Monitoring Requirements

Project Description
Holcim (US) Inc. (Holcim) has requested removal of the current opacity monitoring requirements listed in its Title V permit as conditions II.B.6.a and II.B.7.b. These opacity limitations, originally established as BACT requirements, predate the source becoming subject to the Portland Cement (PC) MACT (40 CFR 63 Subpart LLL). The opacity requirements are listed in the current AO. The PC MACT includes direct emission limits on PM as well as requiring the use of a CPMS (continuous parameter monitoring system) for compliance. The PC MACT requirements have been included in the existing AO only by reference. In addition to the monitoring, recordkeeping and reporting requirements already associated with the PM emission limits, an annual stack test is required to validate operation of the CPMS. EPA has required the use of specific emission limits and the use of a CPMS in lieu of opacity requirements monitored by a continuous opacity monitoring system (COMS). The use of a COMS to monitor opacity is redundant. The direct emission limitation and CPMS are both more reliable and more informative.

The use of alternative fuels; and coal additives conditions have been updated to include the use of poly scrap and plastic films.

The AO will also be updated in layout, format and style to match current UDAQ guidelines, and any necessary updates to rule references or condition language will also be made.

EMISSION IMPACT ANALYSIS

There is no change in emissions resulting from this permitting change. The owner/operator has requested the removal of opacity requirements. As there is no change in emissions, the project does not trigger any provisions of R307-410-4 or R307-410-5 by definition. Therefore, no modeling is required for this project. [Last updated October 15, 2020]

SUMMARY OF EMISSIONS

The emissions listed below are an estimate of the total potential emissions from the source. Some rounding of emissions is possible.

Criteria Pollutant	Change (TPY)	Total (TPY)
Carbon Monoxide		1820.00
Nitrogen Oxides		1825.00
Particulate Matter - PM_{10}		221.00
Particulate Matter - $PM_{2.5}$		50.00
Sulfur Dioxide		457.00
Volatile Organic Compounds		151.00

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
Arsenic (TSP) (CAS #7440382)		11
Benzene (Including Benzene From Gasoline) (CAS #71432)		14880
Formaldehyde (CAS #50000)		430
Generic HAPs (CAS #GHAPS)		6400
Hydrochloric Acid (Hydrogen Chloride) (CAS #7647010)		130200
Mercury (TSP) (CAS #7439976)		51
Metal HAPs (CAS #MHAPS)		4800
Naphthalene (CAS #91203)		1582
Phenanthrene (CAS #85018)		362
	Change (TPY)	**Total (TPY)**
Total HAPs		79.36

Note: Change in emissions indicates the difference between previous AO and proposed modification.

Review of BACT for New/Modified Emission Units

1. **BACT review regarding for the addition of alternative fuel types under condition 18 (now renumbered)**

Under DAQE-AN0100070024-08, Holcim was allowed a set list of alternative fuels (Condition #18), plus the ability to burn a specific percentage of additional alternative fuels upon receiving conditional approval from UDAQ (Condition #19). Holcim has requested to expand the list of pre-approved alternative fuels to include both poly scrap and plastic films. Holcim received approval for the use of these two materials under the terms of Condition #19 on January 23, 2020. At that time, UDAQ agreed that the materials satisfied both the terms of Condition #19, and that no change in emission quantity or quality would result from the use of these fuels. The source is capable of accommodating the new fuels with no change in equipment, and as no increase in emissions is expected to take place, this project does not trigger a modification under R307-401 or the definitions of 40 CFR 60 (NSPS) or 40 CFR 61 or 63 (NESHAP). No further analysis is required at this time. The NSR section submits that the addition of the new fuels meets BACT. [Last updated October 15, 2020]

SECTION I: GENERAL PROVISIONS

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I.2	The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]
I.3	Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]
I.4	All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Director or Director's representative upon request, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of two (2) years. [R307-401-8]

I.5	At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]
I.6	The owner/operator shall comply with UAC R307-107. General Requirements: Breakdowns. [R307-107]
I.7	The owner/operator shall comply with UAC R307-150 Series. Emission Inventories. [R307-150]
I.8	The owner/operator shall submit documentation of the status of construction or modification to the Director within 18 months from the date of this AO. This AO may become invalid if construction is not commenced within 18 months from the date of this AO or if construction is discontinued for 18 months or more. To ensure proper credit when notifying the Director, send the documentation to the Director, attn.: NSR Section. [R307-401-18]

SECTION II: PERMITTED EQUIPMENT

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II.A.7	**Coal Ops: Transfer Equipment** Equipment in the clinker manufacturing system for transfers from coal mill to the kiln (HAC #L91-xxx).
II.A.8	**Kiln System: Clinker Manufacture - MHO** Equipment for the calcination of raw material, including material transfer points, conveyors, bag filters, bins (HAC #411-xxx, 431-xxx, 4A1-xxx except 4A1-BFx).
II.A.9	**Kiln System: In-Line Kiln/Raw Mill** Emissions from five-stage kiln system (HAC #441-xxx, 461-xxx) and raw mill (#361-RM1) are controlled by main baghouse (#421-BF1). Alkali bypass emissions are controlled by baghouse (#4A1-BF1). Both baghouses exit through the main stack.
II.A.10	**Cooler System: Clinker Cooler** Grate cooler (#417-GQ1) for cooling clinker, controlled by baghouse (#471-BF1).
II.A.11	**Cooler System: Clinker Cooler System - MHO** Transfer equipment and dust control for clinker cooler system. (HAC #47x-xxx to 49x-xxx excluding 471-BF1, 471-GQ1).
II.A.12	**Cooler System: Finish Mill Operations** Equipment for grinding of clinker and additive addition, including material transfer points, conveyors, bag filters, bins. (HAC #52x-xxx to 59x-xxx, K93-xxx & T93-xxx)
II.A.13	**Supplemental: Packing & Distribution System** Equipment for shipping of cement products: conveyor transfer points, bins, bag filters and other miscellaneous transfer points. (HAC #61x-xxx to 6Ex-xxx)
II.A.14	**Supplemental: Material Handling - Group 1** All totally-enclosed storage bins, conveying system transfer points, bagging systems, and bulk loading/unloading systems identified in 40 CFR 63.1340, Subpart LLL as affected sources.
II.A.15	**Supplemental: Material Handling - Group 2** All partially-enclosed or unenclosed storage bins, conveying system transfer points, bagging systems, and bulk loading/unloading systems identified in 40 CFR 63.1340, Subpart LLL as affected sources. This unit also includes partially- or totally-enclosed storage bins, conveying system transfer points, bagging systems, and bulk loading/unloading systems identified in 40 CFR 63.1340, Subpart LLL as affected sources and that are equipped with a control device (PMCD).
II.A.16	**Supplemental: Emergency Generators** Two diesel-powered emergency backup generators, approx 755 HP and 166 HP. The 166 HP unit is subject to 40 CFR 63 Subpart ZZZZ requirements.

SECTION II: SPECIAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO. **(New or Modified conditions are indicated as "New" in the Outline Label):**

II.B REQUIREMENTS AND LIMITATIONS

II.B.1	**Conditions on Permitted Source**

II.B.1.a	Emissions to the atmosphere at all times from the indicated emission point shall not exceed the following rates and concentrations: Source: Kiln Main Stack Exhaust PM_{10} 14 lb/hr SO_2: 475 lb/hr on a rolling 24-hr average and 457 tons per rolling 12-month period CO: 438 lb/hr NO_x: 1,817 tons rolling 12-month period. [R307-401-8(1)(a)]
II.B.1.a.1	Compliance with the NO_x and SO_2 emission limitations will be through use of a CEM. The owner/operator shall install, calibrate, maintain, and continuously operate a CEM on the kiln main stack. The owner/operator shall record the output of the system, which shall measure the NO_x and SO_2 emissions. The monitoring system shall comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the owner/operator of an affected source shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section UAC R307-170. [R307-170]
II.B.1.a.2 NEW	Compliance Demonstration To demonstrate compliance with the PM_{10} and CO emission limitations above, the owner/operator shall perform stack testing on the kiln exhaust stack according to the stack testing conditions contained in this AO. Test Frequency PM_{10}: a stack test shall be performed within five (5) years after the date of the most recent stack test. The Director may require the owner/operator to perform a stack test at any time. CO: a stack test shall be performed within two (2) years after the date of the most recent stack test. The Director may require the owner/operator to perform a stack test at any time. [R307-165-2, R307-401-8]
II.B.1.b NEW	The owner/operator shall adhere to the following: A. No more than 930,000 tons of clinker shall be produced per rolling 12-month period Production shall be determined by maintenance of a supervisor log. Compliance with this annual limitation shall be determined on a rolling 12-month total. Based on the twentieth day of each month a new 12-month total shall be calculated using the previous 12 months of kiln production. Records of production shall be kept for all periods when the plant is in operation. B. Mining operations and transporting of materials from the mine to the plant shall be limited to between 5:00 AM and 8:00 PM each day. Mining and transporting operations shall be determined by maintenance of a supervisor log. Records shall be kept in the log when mining operations and transporting of materials from the mine to the plant occur outside of the schedule listed above. [R307-401-8(1)(a)]

II.B.1.c NEW	Visible emissions from the following emission points shall not exceed the listed values: A. Crushers - 15% opacity B. Coal milling, processing, conveying - 20% opacity C. All other point sources, except the kiln main stack and the clinker cooler - 10% opacity Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. All PM_{10} stack emission releases shall be vented vertically without any restriction to upward momentum at or beyond the stack opening. [40 CFR 60 Subpart OOO, 40 CFR 60 Subpart Y, R307-401-8(1)(a)]
II.B.1.d	All paved/unpaved roads and other operational areas that are used by mobile equipment shall be water sprayed, and/or chemically treated, and/or swept using a mobile sweeper to control fugitive dust. The application of water or chemical treatment shall be used for unpaved roads and unpaved operational areas. Treatment shall be of sufficient frequency and quantity to maintain the surface material in a damp/moist condition unless it is below freezing. The mobile sweeper shall operate as necessary to control visible fugitive dust emissions from paved surfaces. The opacity shall not exceed 20% during all times the areas are in use. Records of water, and/or chemical treatment, and/or mobile sweeping shall be kept for all periods when the plant is in operation. The records shall include the following items as applicable: A. Date B. Number of treatments made, dilution ratio, and quantity C. Precipitation received, if any, and approximate amount D. Time of day treatments were made E. Records of temperature, if the temperature is below freezing. [R307-205]
II.B.1.e	Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall not exceed 20% opacity at any point. Visible emission determinations shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Visible emissions shall be measured at the densest point of the plume but at a point not less than 1/2 vehicle length behind the vehicle and not less than 1/2 the height of the vehicle. [R307-205]
II.B.1.f NEW	A dust suppression system shall be installed at the following points to control fugitive emissions: A. Impact crusher dump pocket (II.A.3) - water spray B. Conveyor transfer points (II.A.3, II.A.5, II.A.6) - baghouse dust collectors The system shall operate whenever dry conditions warrant or as determined necessary by the Director. Visual inspections shall be made monthly to demonstrate compliance with this condition. A log of the visual inspections including the date and time of each inspection and the name of the person making the inspection shall be maintained. [R307-401-8(1)(a)]

II.B.2 NEW	**Stack Testing Requirements**
II.B.2.a NEW	The owner/operator shall conduct any stack testing required by this AO according to the following conditions. [R307-401-8]
II.B.2.b NEW	Notification At least 30 days prior to conducting a stack test, the owner/operator shall submit a source test protocol to the Director. The source test protocol shall include the items contained in R307-165-3. If directed by the Director, the owner/operator shall attend a pretest conference. [R307-165-3, R307-401-8]
II.B.2.c NEW	Testing & Test Conditions The owner/operator shall conduct testing according to the approved source test protocol and according to the test conditions contained in R307-165-4. [R307-165-4, R307-401-8]
II.B.2.d NEW	Access The owner/operator shall provide Occupational Safety and Health Administration (OSHA)- or Mine Safety and Health Administration (MSHA)-approved access to the test location. [R307-401-8]
II.B.2.e NEW	Reporting No later than 60 days after completing a stack test, the owner/operator shall submit a written report of the results from the stack testing to the Director. The report shall include validated results and supporting information. [R307-165-5, R307-401-8]
II.B.2.f NEW	Possible Rejection of Test Results The Director may reject stack testing results if the test did not follow the approved source test protocol or for a reason specified in R307-165-6. [R307-165-6, R307-401-8]
II.B.2.g NEW	Filterable PM_{10} 40 CFR 60, Appendix A, Method 5; 40 CFR 51, Appendix M, Method 201; Method 201A; or other EPA-approved testing method as acceptable to the Director. If other approved testing methods are used which cannot measure the PM_{10} fraction of the filterable particulate emissions, all of the filterable particulate emissions shall be considered PM_{10}. Condensable PM 40 CFR 51, Appendix M, Method 202 or other EPA-approved testing method as acceptable to the Director. The back-half condensables shall not be used for compliance demonstration but shall be used for inventory purposes. [R307-401-8]
II.B.2.h NEW	CO 40 CFR 60, Appendix A, Method 10 or other EPA-approved testing method as acceptable to the Director. [R307-401-8]
II.B.3 NEW	**Fuel Requirements**
II.B.3.a NEW	The owner/operator shall only use diesel fuel (e.g. fuel oil #1, #2, or diesel fuel oil additives) as fuel in the emergency generators (II.A.16). [R307-401-8]

II.B.3.a.1 NEW	The owner/operator shall only combust diesel fuel in the emergency engines that meets the definition of ultra-low sulfur diesel (ULSD), which has a sulfur content of 15 ppm or less. [R307-401-8(1)(a)]
II.B.3.a.2 NEW	To demonstrate compliance with the ULSD fuel requirement, the owner/operator shall maintain records of diesel fuel purchase invoices or obtain certification of sulfur content from the diesel fuel supplier. The diesel fuel purchase invoices shall indicate that the diesel fuel meets the ULSD requirements. [R307-401-8]
II.B.3.b NEW	The owner/operator shall use only the following fuels in the kiln: A. Coal B. Diaper Derived Fuel (DDF) C. Tire Derived Fuel (TDF) D. Natural Gas E. Coke F. Fuel Oil G. Used Oil H. Synthetic Fuel I. Wood J. Any Non-Recyclable plastics, paper, and fibers from Municipal Solid Waste, Commercial or Industrial Waste recycling centers; or as byproducts from manufacturing facilities that meet the definition of Non-Hazardous Secondary materials under 40 CFR part 241. Examples include but are not limited to manufactured waste plastics, cellulose products, poly scrap and plastic films from the recycling of paperboard materials. K. Coal Additives as defined in Condition II.B.3.b.1. [R307-401-8(1)(a)]
II.B.3.b.1 NEW	The coal additives listed above shall consist of alternative fuels approved by the Director. Prior to burning any proposed coal additive, the owner/operator shall obtain approval from the Director. To obtain approval, the owner/operator shall submit Material Safety Data Sheets (MSDS) or the results of suitable tests giving data similar to a Proximate and Ultimate analysis of the proposed coal additive. Approval by the Director shall consist of a letter approving the use of the proposed coal additive. Approval is not required to change from one previously approved coal additive to another previously approved coal additive. The average quantity of coal additives burned shall not be greater than 15% of the total daily heat input of the kiln and precalciner. The owner/operator may increase the average quantity of coal additives up to 25% of the total daily heat input of the kiln and precalciner upon approval by the Director in accordance with the approval process described herein. [R307-401-8(1)(a)]

II.B.3.c NEW	The sulfur content of any coal or mixture of coals burned in the kiln shall not exceed 1.0 pound of sulfur per million BTUs of heat input. The sulfur content of any fuel oil burned in the kiln shall not exceed 0.85 pounds sulfur per million gross BTUs heat input. If any type of fuel is desired to be used that has a higher sulfur content, an AO shall be required in accordance with R307-401, UAC. Methods for determining sulfur content of coal and fuel oil shall be those methods of the American Society for Testing and Materials, UAC R307-203-1 (4) A. For determining sulfur content in coal, ASTM Method D4239-2018 is to be used. B. For determining sulfur content in oil, ASTM Methods D2880-71 or D4294-89 are to be used. C. For determining the gross calorific (or BTU) content of coal, ASTM Methods D5865/D5865M are to be used. If these methods are superseded, the approved method put forth by ASTM shall be used. [R307-401-8(1)(a)]
II.B.3.d	The concentration/parameters of contaminants in any used oil fuel shall not exceed the following levels: 1) Arsenic: 5 ppm by weight 2) Cadmium: 2 ppm by weight 3) Chromium: 10 ppm by weight 4) Lead: 100 ppm by weight 5) Total halogens: 1,000 ppm by weight 6) Sulfur: 0.5 percent by weight A. The flash point of all used oil to be burned shall not be less than 100 ^{o}F. B. The owner/operator shall provide test certification for each load of used oil fuel received. Certification shall be either by their own testing or test reports from the used oil fuel marketer. Records of used oil fuel consumption and the test reports shall be kept for all periods when the plant is in operation. C. Used oil that does not exceed any of the listed contaminants content may be burned. The owner/operator shall record the quantities of oil burned on a daily basis. D. Any used oil fuel that contains more than 1000 ppm by weight of total halogens shall be considered a hazardous waste and shall not be burned in the kiln. The oil shall be tested for halogen content by ASTM Method D-808-81, EPA Method 8240 or Method 8260 before used oil fuel is transferred to the day tank and burned. E. Sources utilizing used oil as a fuel shall comply with the State Division of Solid and Hazardous Waste in accordance with R315-15, UAC. [R307-401-8]
II.B.4 NEW	**Emergency Engine Requirements**

II.B.4.a NEW	The owner/operator shall not operate each emergency engine on site for more than 100 hours per calendar year for maintenance checks and readiness testing. Each emergency engine may be operated for up to 50 hours per calendar year in non-emergency situations . Any operation in non-emergency situations shall be counted as part of the 100 hours per calendar year for maintenance and testing. There is no time limit on the use of the engines during emergencies. [40 CFR 60 Subpart ZZZZ, R307-401-8]
II.B.4.a.1	To determine compliance with the annual operation limitation, records documenting the operation of each emergency engine shall be kept in a log and shall include the following: a. The date the emergency engine was used b. The duration of operation in hours c. The reason for the emergency engine usage. [40 CFR 60 Subpart ZZZZ, R307-401-8]
II.B.4.a.2	To determine the duration of operation, the owner/operator shall install a non-resettable hour meter for each emergency engine. [R307-401-8, 40 CFR 63 Subpart ZZZZ]

PERMIT HISTORY

When issued, the approval order shall supersede (if a modification) or will be based on the following documents:

Is Derived From	Source Submitted NOI dated August 7, 2019
Replaces	DAQE-AN0100070024-08 dated November 6, 2008

REVIEWER COMMENTS

1. **Comment regarding update to existing AO:**
Holcim has been operating under AO DAQE-AN0100070024-08. Holcim requested the removal of the opacity requirements in existing AO condition #11, and adding a fuel to the alternative fuels list. The opacity requirements have been made redundant with the opacity monitoring requirements included in 40 CFR 63 Subpart LLL - National Emission Standards for Hazardous Air Pollutants from the Portland Cement Industry (the PC MACT). The requirements of Subpart LLL are applicable to the Holcim facility, and Holcim complies with the specific particulate matter emission limits through the use of a continuous parametric monitoring system, and routine performance stack testing on the kiln and clinker cooler. The new additional fuels were previously approved on a conditional basis through the provisions of Condition #19 in Holcim's existing AO DAQE-AN0100070024-08. The new additional fuels meet the definition of BACT, and their use will not result in an increase in emissions. The source is capable of accommodating both fuels with no physical change in equipment or processes; thus, this project does not constitute a modification under the definitions of either UAC Rules R307-401, or 40 CFR 60 (NSPS) or 40 CFR 61 or 63 (NESHAP).

   UDAQ has significantly changed the permit structure and layout since 2008 when Holcim's last AO was issued. As a result, UDAQ is taking this opportunity to update the AO format to match the current modernized template. A number of conditions will be updated to address changes in the UAC R307 rules. Where necessary, other conditions may be altered to address corrections in formatting, style modifications, adding clarity or correcting errors, and to remain consistent with internal cross-referencing as required. This includes a new layout and expansion of the stack testing requirements, which have been moved under a new heading for clarity. [Last updated October 21, 2020]

2. **Comment regarding change in allowed fuels:**
Holcim has requested a change in the list of allowed fuels. Under this request the current fuel list will be expanded to include the following:

   Any Non-Recyclable plastics, paper, and fibers from Municipal Solid Waste, Commercial or Industrial Waste recycling centers; or as byproducts from manufacturing facilities that meet the definition of Non-Hazardous Secondary materials under 40 CFR part 241. Examples include but are not limited to manufactured waste plastics, cellulose products, poly scrap and plastic films from the recycling of paperboard materials.

   UDAQ has reviewed the additional materials and Holcim's analysis under the terms of conditions 18 and 19 of Holcim's current AO (DAQE-AN0100070024-08). UDAQ agrees that the additional fuels meet the requirements for approval and will add the suggested language. The existing coal additives language will remain in place - should Holcim desire to pursue additional fuel additives in the future. [Last updated October 6, 2020]

3. **Comment regarding change in opacity requirements:**

Condition II.B.1.c has been updated to remove the opacity requirement on the kiln main stack and clinker cooler - this is from the update to 40 CFR 63 Subpart LLL and the purpose of the request from Holcim. Also updated in this condition was the addition of the specific opacity requirements on crushers at 15%, and coal milling, processing and conveying at 20%. While both of these are point sources, and were seemingly included in the 10% opacity restriction of condition 11.B of DAQE-AN0100070024-08, it was never the intention of UDAQ to supersede the opacity requirements found in NSPS Subparts OOO (for the crusher) and Y (for coal milling and other operations).

Stockpiles, a source also listed in the Title V Operating Permit document with a specific opacity requirement, is not included in condition II.B.1.c. Neither Subpart OOO nor Subpart Y applies to the stockpiles - they not included as a point source under either subpart. Rather, they are included generally as part of the fugitive emissions covered by R307-205 Fugitive Emissions and Fugitive Dust. Specifically, R307-205-5 details minimizing emissions. The requirements of R307-205 have been included in II.B.1.d and e. [Last updated November 3, 2020]

ACRONYMS

The following lists commonly used acronyms and associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by EPA to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent - 40 CFR Part 98, Subpart A, Table A-1
COM	Continuous opacity monitor
DAQ/UDAQ	Division of Air Quality
DAQE	This is a document tracking code for internal UDAQ use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - 40 CFR 52.21 (b)(49)(i)
GWP	Global Warming Potential - 40 CFR Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/HR	Pounds per hour
LB/YR	Pounds per year
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO_x	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM_{10}	Particulate matter less than 10 microns in size
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO_2	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
VOC	Volatile organic compounds

Reporting Period	Facility Identifier	Facility Name	Pollutant Code	Pollutant Descript	Pollutant Type
2017	10007	Holcim (US) Inc.-	PM10-PRI	PM10 Primary (Fi	CAP
2017	10007	Holcim (US) Inc.-	PM10-FIL	PM10 Filterable	CAP
2017	10007	Holcim (US) Inc.-	PM25-PRI	PM2.5 Primary (F	CAP
2017	10007	Holcim (US) Inc.-	PM25-FIL	PM2.5 Filterable	CAP
2017	10007	Holcim (US) Inc.-	PM-CON	PM Condensible	CAP
2017	10007	Holcim (US) Inc.-	SO2	Sulfur Dioxide	CAP
2017	10007	Holcim (US) Inc.-	NOX	Nitrogen Oxides	CAP
2017	10007	Holcim (US) Inc.-	VOC	Volatile Organic C	CAP
2017	10007	Holcim (US) Inc.-	CO	Carbon Monoxide	CAP
2017	10007	Holcim (US) Inc.-	7439921	Lead	CAP
2017	10007	Holcim (US) Inc.-	NH3	Ammonia	CAP
2017	10007	Holcim (US) Inc.-	7440382	Arsenic	HAP
2017	10007	Holcim (US) Inc.-	71432	Benzene	HAP
2017	10007	Holcim (US) Inc.-	7440417	Beryllium	HAP
2017	10007	Holcim (US) Inc.-	7440439	Cadmium	HAP
2017	10007	Holcim (US) Inc.-	7782505	Chlorine	HAP
2017	10007	Holcim (US) Inc.-	7440473	Chromium	HAP
2017	10007	Holcim (US) Inc.-	132649	Dibenzofuran	HAP
2017	10007	Holcim (US) Inc.-	50000	Formaldehyde	HAP
2017	10007	Holcim (US) Inc.-	35822469	1,2,3,4,6,7,8-Hep	HAP
2017	10007	Holcim (US) Inc.-	7647010	Hydrochloric Acid	HAP
2017	10007	Holcim (US) Inc.-	7439976	Mercury	HAP
2017	10007	Holcim (US) Inc.-	91203	Naphthalene	HAP
2017	10007	Holcim (US) Inc.-	3268879	Octachlorodibenz	HAP
2017	10007	Holcim (US) Inc.-	7782492	Selenium	HAP

Is PM or VOC	Emissions (exclu	Tailpipe Emission	Total Emissions
No	70.95777601	1.129959931	72.08773594
Yes	68.84069601	0	68.84069601
Yes	14.4352264	1.096061133	15.53128754
Yes	12.3181464	0	12.3181464
Yes	2.11708	0	2.11708
No	196.20795	0.030063297	196.2380133
No	1406.346	20.48349298	1426.829493
No	43.48542	1.625276704	45.1106967
No	1050.979	8.533567456	1059.512567
No	0.001497078	0	0.001497078
No	3.950257265	0	3.950257265
Yes	0.000120598	0	0.000120598
Yes	2.147324	0	2.147324
Yes	3.01E-05	0	3.01E-05
Yes	0.000173903	0	0.000173903
No	0	0	0
Yes	0.000869515	0	0.000869515
Yes	0	0	0
Yes	0.147785	0	0.147785
Yes	0	0	0
No	1.9318355	0	1.9318355
No	0.1096345	0	0.1096345
Yes	0.00642685	0	0.00642685
Yes	0.000001	0	0.000001
Yes	0.00491465	0	0.00491465

4.915598413
44.95892085

HAPs	ratio
4.349115647	41.85310847

182.0240089