



State of Utah

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Governor

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Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-AN160190002-25

January 15, 2025

Andrew McKane
Ash Grove Cement Company
P.O. Box 38069
Leamington, UT 84638
andrew.mckane@ashgrove.com

Dear Mr. McKane:

Re: Approval Order: Modification to Approval Order DAQE-AN160190001-20 to Update Equipment and Ownership
Project Number: N160190002

The attached Approval Order (AO) is issued pursuant to the Notice of Intent (NOI) received on August 8, 2024. Ash Grove Cement Company must comply with the requirements of this AO, all applicable state requirements (R307), and Federal Standards.

The project engineer for this action is **Dungan Adams**, who can be contacted at (385) 290-2474 or dunganadams@utah.gov. Future correspondence on this AO should include the engineer's name as well as the DAQE number shown on the upper right-hand corner of this letter. No public comments were received on this action.

Sincerely,

Bryce C. Bird
Director

BCB:DA:jg

cc: Tooele County Health Department

STATE OF UTAH
Department of Environmental Quality
Division of Air Quality

APPROVAL ORDER
DAQE-AN160190002-25
Modification to Approval Order DAQE-AN160190001-20
to Update Equipment and Ownership

Prepared By
Dungan Adams, Engineer
(385) 290-2474
dunganadams@utah.gov

Issued to
Ash Grove Cement Company - Tooele Pozzolans Processing Plant

Issued On
January 15, 2025

Issued By



Bryce C. Bird
Director
Division of Air Quality

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GENERAL INFORMATION

CONTACT/LOCATION INFORMATION

Owner Name

Ash Grove Cement Company

Source Name

Ash Grove Cement Company - Tooele Pozzolans Processing Plant

Mailing Address

P.O. Box 38069
Leamington, UT 84638

Physical Address

1345 K Avenue
Tooele, UT 84074

Source Contact

Name: Andrew McKane
Phone: (385) 454-4827
Email: andrew.mckane@ashgrove.com

UTM Coordinates

387,028 m Easting
4,487,766 m Northing
Datum NAD83
UTM Zone 12

SIC code 1429 (Stone, Crushed & Broken, NEC)

SOURCE INFORMATION

General Description

Ash Grove Cement Company (Ash Grove) owns and operates a facility that processes volcanic ash (pozzolans) for use in the concrete industry. The facility receives wet ash product, where it is dried, processed, and sorted to proper size for resale. The facility will produce up to 384,200 tons of pozzolan per year.

NSR Classification

Minor Modification at Minor Source

Source Classification

Located in Northern Wasatch Front O3 NAA, Salt Lake City UT PM_{2.5} NAA
Tooele County
Airs Source Size: B

Applicable Federal Standards

NSPS (Part 60), A: General Provisions
NSPS (Part 60), OOO: Standards of Performance for Nonmetallic Mineral Processing Plants
NSPS (Part 60), UUU: Standards of Performance for Calciners and Dryers in Mineral Industries
Title V (Part 70) Area Source

Project Description

The source has requested the following changes to the AO:

1. Ownership change from Geofortis Utah, LLC to Ash Grove Cement Company.
2. Add one (1) storage silo with a bin vent filter, bringing the total to three (3) storage silos.
3. Remove the requirement to use dust collectors for processes involving saturated material.
4. Add one (1) loadout spout, bringing the total to two (2) loadout spouts.
5. Add a backup feed conveyor to the dryer.
6. Remove the 50-kW emergency generator engine from the permitted equipment.

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)
CO ₂ Equivalent	-3	16847.00
Carbon Monoxide	-0.09	11.72
Nitrogen Oxides	-0.05	16.62
Particulate Matter - PM ₁₀	0	7.50
Particulate Matter - PM _{2.5}	0	7.13
Sulfur Dioxide	0	0.08
Volatile Organic Compounds	0	0.77

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
Generic HAPs (CAS #GHAPS)	0	24
Hexane (CAS #110543)	0	500
	Change (TPY)	Total (TPY)
Total HAPs	0	0.26

SECTION I: GENERAL PROVISIONS

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 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

II.A THE APPROVED EQUIPMENT

II.A.1	Tooele Pozzolans Processing Plant
II.A.2	One (1) Rotary Dryer Fuel: Natural Gas Control: Baghouse NSPS Applicability: Subpart UUU Rating: 32.5 MMBtu/hr Capacity: 52 wet tons per hour
II.A.3	One (1) Ball Mill and Classifier Sizes dried Pozzolan material Controls: Baghouse NSPS Applicability: Subpart OOO Capacity: 45 tons per hour
II.A.4	Three (3) Storage Silos (One (1) New) Controls: Bin Vents NSPS Applicability: Subpart OOO

II.A.5	<p>One (1) Loadout Silo Includes two (2) loadout spouts (one (1) new) Control: Bin Vent NSPS Applicability: Subpart OOO</p>
II.A.6	<p>Various Conveyors Controls: Dust collectors for unsaturated conveyor transfer points</p>

SECTION II: SPECIAL PROVISIONS

II.B REQUIREMENTS AND LIMITATIONS

II.B.1	<p>Site-Wide Requirements</p>
II.B.1.a	<p>The owner/operator shall not produce more than 384,200 tons of Pozzolans material per rolling 12-month period. [R307-401-8]</p>
II.B.1.a.1	<p>The owner/operator shall:</p> <ul style="list-style-type: none"> A. Determine the amount of material processed with belt scales B. Record the amount of material processed on a daily basis C. Use the amount of material processed each day to calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12 months D. Keep the records of material processed for all periods the plant is in operation. <p>[R307-401-8]</p>
II.B.1.b	<p>The owner/operator shall not allow visible emissions from the following emission points to exceed the following values:</p> <ul style="list-style-type: none"> A. All saturated conveyor transfer points - 0% opacity B. The dryer baghouse - 10% opacity C. The ball mill baghouse - 7% opacity D. All unsaturated conveyor transfer points - 7% opacity E. All bin vents - 7% opacity F. All other points - 20% opacity. <p>[40 CFR 60 Subpart OOO, 40 CFR 60 Subpart UUU, R307-201-3, R307-312-4, R307-401-8]</p>
II.B.1.b.1	<p>The owner/operator shall conduct visual determination of emissions from saturated conveyor transfer points according to 40 CFR 60 Appendix A, Method 22. [R307-401-8]</p>
II.B.1.b.2	<p>The owner/operator shall conduct all other visual determinations of emissions according to 40 CFR 60, Appendix A, Method 9. [R307-201-3]</p>

II.B.2	Fugitive Dust Requirements
II.B.2.a	The owner/operator shall pave all haul roads associated with the Tooele Pozzolans Processing Plant. [R307-401-8]
II.B.2.b	The owner/operator shall vacuum sweep and flush with water all the paved haul roads on site to maintain opacity limit listed in this AO. The owner/operator shall use an operational vacuum sweeper and water truck to conduct the required vacuum sweeping and watering. The owner/operator may stop flushing the paved haul roads with water when the temperature is below freezing but shall apply other controls as necessary to prevent visible emissions from exceeding the opacity limits listed in this AO. The owner/operator may stop vacuum sweeping the paved haul roads when the haul roads are covered with snow or ice. [R307-401-8]
II.B.2.b.1	Records of vacuum sweeping and water application shall be kept for all periods when the plant is in operation. The records shall include the following items: A. Date and time vacuum sweeping and water application were made B. Number of vacuum sweeping and water application made and quantity of water applied C. Rainfall amount received, if any D. Records of temperature, if the temperature was below freezing E. Records of any other control used to reduce fugitive dust. [R307-401-8]
II.B.2.c	The owner/operator shall keep all storage piles on site in a total enclosure or building. [R307-401-8]
II.B.3	Material Processing Requirements
II.B.3.a	The owner/operator shall control particulate emissions from unsaturated conveyor transfer points with a dust collection system. [R307-401-8]
II.B.3.b	The owner/operator shall not operate the primary feed conveyor and the backup feed conveyor at the same time. [R307-401-8]
II.B.3.c	The owner/operator shall control particulate emissions from each storage silo with a bin vent. [R307-401-8]
II.B.3.d	The owner/operator shall control particulate emissions from the ball mill classifier with a baghouse certified to meet a PM ₁₀ concentration of 0.01 gr/dscf. [R307-401-8]
II.B.3.d.1	To demonstrate compliance with the emission rate, the owner/operator shall keep a record of the manufacturer's certification of the emission concentration. The record shall be kept for the life of the equipment. [R307-401-8]
II.B.3.e	The owner/operator shall install a manometer or magnehelic pressure gauge to measure the differential pressure across the ball mill baghouse. The static pressure differential across the baghouse shall be between 2.0 and 6.0 inches of water column. [R307-401-8]
II.B.3.e.1	The pressure gauge shall be located such that an inspector/operator can safely read the indicator at any time. The pressure gauge shall measure the pressure drop in one-inch water column increments or less. The pressure gauge shall be calibrated according to the manufacturer's instructions at least once every 12 months. [R307-401-8]

II.B.3.e.2	The owner/operator shall record the reading of the pressure gauge at least once per operating day when the baghouse is operating. [R307-401-8]												
II.B.3.f	The owner/operator shall conduct an initial performance test for all ball mills, silos, storage bins, and conveyor transfer points subject to this AO that are subject to NSPS OOO. Performance tests shall meet the limitations specified in Table 3 to Subpart OOO. [40 CFR 60 Subpart OOO, R307-401-8]												
II.B.3.f.1	Initial performance tests for fugitive emissions limits shall be conducted according to 40 CFR 60.675(c). The owner/operator may use methods and procedures specified in 40 CFR 60.675(e) as alternatives to the reference methods and procedures specified in 40 CFR 60.675(c). [40 CFR 60 Subpart OOO]												
II.B.3.f.2	The owner/operator shall keep and maintain records of the initial performance test for each crusher, silo, storage bin, and conveyor for the life of the equipment. The record of the initial performance test must be made available to the Director or the Director's representative upon request. [40 CFR 60 Subpart OOO, R307-401-8]												
II.B.4	Rotary Dryer Requirements												
II.B.4.a	The owner/operator shall only use natural gas as fuel for the dryer. [R307-401-8]												
II.B.4.b	The owner/operator shall control emissions from the dryer using a baghouse. [R307-401-8]												
II.B.4.c	The owner/operator shall install a manometer or magnehelic pressure gauge to measure the differential pressure across the baghouse. The static pressure differential across the baghouse shall be between 2.0 and 6.0 inches of water column. [R307-401-8]												
II.B.4.c.1	The pressure gauge shall be located such that an inspector/operator can safely read the indicator at any time. The pressure gauge shall measure the pressure drop in one-inch water column increments or less. The pressure gauge shall be calibrated according to the manufacturer's instructions at least once every 12 months. [R307-401-8]												
II.B.4.c.2	The owner/operator shall record the reading of the pressure gauge at least once per operating day when the baghouse is operating. [R307-401-8]												
II.B.5	Rotary Dryer Stack Testing Requirements												
II.B.5.a	The owner/operator shall not emit more than the following rates and concentrations from the Rotary Dryer: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th><u>Pollutant</u></th> <th><u>lb/hr</u></th> <th><u>grains/dscf</u></th> </tr> </thead> <tbody> <tr> <td>PM</td> <td>1.32</td> <td>0.01</td> </tr> <tr> <td>Filterable PM₁₀</td> <td>1.32</td> <td>0.01</td> </tr> <tr> <td>Filterable PM_{2.5}</td> <td>1.32</td> <td>0.01</td> </tr> </tbody> </table> [R307-401-8]	<u>Pollutant</u>	<u>lb/hr</u>	<u>grains/dscf</u>	PM	1.32	0.01	Filterable PM ₁₀	1.32	0.01	Filterable PM _{2.5}	1.32	0.01
<u>Pollutant</u>	<u>lb/hr</u>	<u>grains/dscf</u>											
PM	1.32	0.01											
Filterable PM ₁₀	1.32	0.01											
Filterable PM _{2.5}	1.32	0.01											
II.B.5.a.1	Compliance Demonstration To demonstrate compliance with the emission limitations above, the owner/operator shall perform stack testing on the emission unit according to the stack testing conditions contained in this AO. [R307-165-2, R307-401-8]												
II.B.5.a.2	Initial Test The owner/operator shall conduct an initial stack test on the emission unit within 180 days after startup of the emission unit. [R307-165-2]												

II.B.5.a.3	<p>Test Frequency The owner/operator shall conduct a stack test on the emission unit within five (5) years after the date of the most recent stack test of the emission unit. The Director may require the owner/operator to perform a stack test at any time. [R307-165-2, R307-401-8]</p>
II.B.5.b	<p>The owner/operator shall conduct any stack testing required by this AO according to the following conditions. [R307-401-8]</p>
II.B.5.b.1	<p>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]</p>
II.B.5.b.2	<p>Testing and 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]</p>
II.B.5.b.3	<p>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]</p>
II.B.5.b.4	<p>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. [R307-401-8]</p>
II.B.5.b.5	<p>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]</p>
II.B.5.c	<p>Test Methods When performing stack testing, the owner/operator shall use the appropriate EPA-approved test methods as acceptable to the Director. Acceptable test methods for pollutants are listed below. [R307-401-8]</p>
II.B.5.c.1	<p>Standard Conditions</p> <ul style="list-style-type: none"> A. Temperature - 68 degrees Fahrenheit (293 K) B. Pressure - 29.92 in Hg (101.3 kPa) C. Averaging Time - As specified in the applicable test method. <p>[40 CFR 60 Subpart A, 40 CFR 63 Subpart A, R307-401-8]</p>
II.B.5.c.2	<p>PM 40 CFR 60, Appendix A, Method 5, or other EPA-approved testing method as acceptable to the Director. [R307-401-8]</p>
II.B.5.c.3	<p>Filterable PM₁₀ 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 PM₁₀ fraction of the filterable particulate emissions, all of the filterable particulate emissions shall be considered PM₁₀. [R307-401-8]</p>

II.B.5.c.4	Filterable PM_{2.5} 40 CFR 60, Appendix A, Method 5; 40 CFR 51, Appendix M, 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 _{2.5} fraction of the filterable particulate emissions, all of the filterable particulate emissions shall be considered PM _{2.5} . [R307-401-8]
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PERMIT HISTORY

This Approval Order shall supersede (if a modification) or will be based on the following documents:

Supersedes
Is Derived From
Incorporates
Incorporates
Incorporates
Incorporates

AO DAQE-AN160190001-20 dated September 30, 2020
NOI dated August 8, 2024
Additional Information dated August 26, 2024
Additional Information dated September 18, 2024
Additional Information dated September 23, 2024
Additional Information dated October 11, 2024

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 Environmental Protection Agency 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 - Title 40 of the Code of Federal Regulations 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 Division of Air Quality use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - Title 40 of the Code of Federal Regulations 52.21 (b)(49)(i)
GWP	Global Warming Potential - Title 40 of the Code of Federal Regulations Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
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