June 7, 2024

Colby Thomas
Ash Grove Cement Company
Montana City Plant
100 Monana Highway 518
Clancy, Montana 59634

Sent via email: colby.thomas@ashgrove.com

RE: Final Title V Operating Permit #OP2005-14

Dear Mr. Thomas:

DEQ prepared this Final Operating Permit #OP2005-14, for Ash Grove Cement Company – Montana City Plant, located in Montana City, Montana.

This permit must be kept at the facility or a DEQ-approved location.

Sincerely,

Craig P. Henrikson, P.E.
Interim Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-6711

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Air Quality Engineer
Air Quality Bureau
(406) 444-5391

ec: Branch Chief, Air Permitting and Monitoring Branch, US EPA Region VIII 8ARD-PM
Robert Gallagher, US EPA Region VIII, Montana Office

Montana Department of Environmental Quality
Air, Energy & Mining Division
Air Quality Bureau

AIR QUALITY OPERATING PERMIT #OP2005-14

Issued to: **Ash Grove Cement Company**
Montana City Portland Cement Plant
100 Montana Highway 518
Clancy, MT 59634

Administrative Amendment Application Received:	04/08/2024
Application Deemed Administratively Complete:	04/08/2024
Application Deemed Substantively Complete:	04/08/2024
Date of Decision:	04/26/2024
Effective Date:	05/29/2024
Expiration Date:	09/15/2027
Complete Renewal Application Due:	03/15/2027

AFS Number: 030-043-0001A

Permit Issuance and Appeal Processes: DEQ issued this permit as effective and final on May 29, 2024. This permit must be kept at the facility or a DEQ-approved location (Montana Code Annotated (MCA) Sections 75-2-217 and 218, Administrative Rules of Montana (ARM), ARM Title 17, Chapter 8, Subchapter 12, Operating Permit Program).

Montana Air Quality Operating Permit
Department of Environmental Quality

Terms not otherwise defined in this permit or in the Definitions and Abbreviations in Appendix B of this permit have the meaning assigned to them in the referenced regulations.

SECTION I. GENERAL INFORMATION

The following general information is provided pursuant to ARM 17.8.1210(1).

Company Name: Ash Grove Cement Company

Mailing Address: 100 Montana Highway 518

City: Clancy **State:** Montana **Zip:** 59634

Plant Location: Approximately 1.8 km east of the I-15 and Highway 518 interchange near Montana City and approximately 5 km south of East Helena.

Responsible Official: Colby Thomas, Plant Manager

Facility Contact Person: Jeff Briggs

Primary SIC Code: 3241 (plant), 1422 (quarry)

Nature of Business: Portland Cement Manufacturing

Description of Process:

The production of Portland cement begins at the quarry. For Ash Grove, approximately 85 to 99 percent of the raw materials used in the cement process are combined high and low-grade limestone quarried from Clark's Gulch quarry. Limestone rock and other raw materials are blasted and loaded onto trucks and transported to the crusher or to stockpiles. The raw materials are conveyed from the primary and secondary crushers and delivered by bucket elevator to the storage bins. From the storage bins, the raw materials are conveyed to the ball mill where the ore is ground with water to form slurry and sent to storage tanks. In the tanks, the slurry is blended thoroughly before entering the kiln. Slurry is pumped to the uphill end of the kiln and heated, evaporating water from the slurry forming clinker. The Ash Grove plant uses a combination of natural gas, coal and/or coke, heavy oils and pitch as fuel sources for the clinker production. When the clinker leaves the kiln, it is cooled, transported by drag chains, pan conveyor and bucket elevator to the clinker bins or outside storage. From there, the clinker goes to the finish ball mill, where it is ground together with gypsum to produce Portland cement. The final cement product is conveyed to storage silos where it is loaded into railroad cars, bulk trucks, or bagged and loaded onto trucks.

SECTION II. SUMMARY OF EMISSION UNITS

The emission units regulated by this permit include the following (ARM 17.8.1211):

Emissions Unit ID		Description	Pollution Control Device/Practice
EU001	AS	Air Separator	Baghouse (DA-21)/which is integral to the process and collects all product through the Air Separator
EU002	CLC	Clinker Cooler	Baghouse (DA-23)
EU003	CPC	Conveyor/Primary Crusher	Baghouse (DA-1)
EU004	FC	Fuel Conveyors	None/ Conveyor and Transfer Point Covers, and Structural Enclosures
EU005	FT	Fuel Transfer	None/Structural Enclosures
EU006	KILN	Cement Kiln	Pulse Jet Baghouse/SNCR/Semi-Dry Scrubber, Low-NOx Burner
EU007	PSC	Product Separator and Cement Coolers	Baghouse (DA-9 East)
EU008	RD	Road Dust	None/Reasonable Precautions
EU009	SLB	Storage Loadout - B	Baghouse (DA-15)
EU010	ST	Stone Transfer	None/Reasonable Precautions
EU011	TBC	Transfer Belt Conveyors	Baghouse (DA-4)
EU012	TBM	Transfer/Convey to Ball Mill	Baghouse (DA-6)
EU013	TFM	Transfer to/from Finish Mill	Particulate Control Device (DA-9 West)
EU014	TLS	Transfer to Limestone Silos	Baghouse (DA-5)
EU015	WE	Wind Erosion	None/Reasonable Precautions
EU016	AUXE	105 Hp Auxiliary Kiln Drive Engine	40 CFR 63, Subpart ZZZZ
EU017	GD	Gasoline Dispensing	40 CFR 63, Subpart CCCCCC
EU018	PLO2	Product Loadout 2	Baghouses (DA-19, DA-20, and DCL Spout)
EU019	SC	Secondary Crusher	Baghouse (DA-3)
EU020	DL	Dust Loadout	Baghouses (DA-24, DA-25, and DCL Spout)

SECTION III. PERMIT CONDITIONS

The following requirements and conditions are applicable to the facility or to specific emission units located at the facility (ARM 17.8.1211, 1212, and 1213).

A. Facility-Wide

Conditions	Rule Citation	Rule Description	Pollutant/Parameter	Limit
A.1	ARM 17.8.105	Testing Requirements	Testing Requirements	-------
A.2	ARM 17.8.304(1)	Visible Air Contaminants	Opacity	40%
A.3	ARM 17.8.304(2)	Visible Air Contaminants	Opacity	20%
A.4	ARM 17.8.308(1)	Particulate Matter, Airborne	Fugitive Opacity	20%
A.5	ARM 17.8.308(2)	Particulate Matter, Airborne	Reasonable Precautions	-------
A.6	ARM 17.8.308	Particulate Matter, Airborne	Reasonable Precaution, Construction	20%
A.7	ARM 17.8.309	Particulate Matter, Fuel Burning Equipment	Particulate Matter	$E= 0.882 * H^{-0.1664}$ or $E= 1.026 * H^{-0.233}$
A.8	ARM 17.8.310	Particulate Matter, Industrial Processes	Particulate Matter	$E= 4.10 * P^{0.67}$ or $E= 55 * P^{0.11} - 40$
A.9	ARM 17.8.322(4)	Sulfur Oxide Emissions, Sulfur in Fuel	Sulfur in Fuel (liquid or solid fuels)	1 lb/MMBtu fired
A.10	ARM 17.8.322(5)	Sulfur Oxide Emissions, Sulfur in Fuel	Sulfur in Fuel (gaseous)	50 gr/100 CF
A.11	ARM 17.8.324(3)	Hydrocarbon Emissions, Petroleum Products	Gasoline Storage Tanks	-------
A.12	ARM 17.8.324	Hydrocarbon Emissions, Petroleum Products	65,000 Gallon Capacity	-------
A.13	ARM 17.8.324	Hydrocarbon Emissions, Petroleum Products	Oil-effluent Water Separator	-------
A.14	ARM 17.8.342	NESHAPs General Provisions	SSM Plans	Submittal
A.15	ARM 17.8.1211(1)(c) and 40 CFR Part 98	Greenhouse Gas Reporting	Reporting	-------
A.16	ARM 17.8.1212	Reporting Requirements	Prompt Deviation Reporting	-------
A.17	ARM 17.8.1212	Reporting Requirements	Compliance Monitoring	-------
A.18	ARM 17.8.1207	Reporting Requirements	Annual Certification	-------

Conditions

A.1. Pursuant to ARM 17.8.105, any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of DEQ, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct test, emission or ambient, for such periods of time as may be necessary using methods approved by DEQ.

Compliance demonstration frequencies that list "as required by DEQ" refer to ARM 17.8.105. In addition, for such sources, compliance with limits and conditions listing "as required by DEQ" as the frequency, is verified annually using emission factors and engineering calculations by DEQ's compliance inspectors during the annual emission inventory review; in the case of Method 9 tests, compliance is monitored during the regular inspection by the compliance inspector.

A.2. Pursuant to ARM 17.8.304(1), Ash Grove shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over six consecutive minutes, unless otherwise specified by rule or in this permit.

A.3. Pursuant to ARM 17.8.304(2), Ash Grove shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six consecutive minutes, unless otherwise specified by rule or in this permit.

A.4. Pursuant to ARM 17.8.308(1), Ash Grove shall not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over six consecutive minutes, unless otherwise specified by rule or in this permit.

A.5. Pursuant to ARM 17.8.308(2), Ash Grove shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter, unless otherwise specified by rule or in this permit.

A.6. Pursuant to ARM 17.8.308, Ash Grove shall not operate a construction site or demolition project unless reasonable precautions are taken to control emissions of airborne particulate matter. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over six consecutive minutes, unless otherwise specified by rule or in this permit.

A.7. Pursuant to ARM 17.8.309, unless otherwise specified by rule or in this permit, Ash Grove shall not cause or authorize particulate matter caused by the combustion of fuel to be discharged from any stack or chimney into the outdoor atmosphere in excess of the maximum allowable emissions of particulate matter for existing fuel burning equipment and new fuel burning equipment calculated using the following equations:

For existing fuel burning equipment (installed before November 23, 1968):
$E = 0.882 * H^{-0.1664}$

For new fuel burning equipment (installed on or after November 23, 1968):
$E = 1.026 * H^{-0.233}$

Where H is the heat input capacity in million BTU (MMBtu) per hour and E is the maximum allowable particulate emissions rate in pounds per MMBtu.

A.8. Pursuant to ARM 17.8.310, unless otherwise specified by rule or in this permit, Ash Grove shall not cause or authorize particulate matter to be discharged from any operation, process, or activity into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter calculated using the following equations:

For process weight rates up to 30 tons per hour: $E = 4.10 * P^{0.67}$
For process weight rates in excess of 30 tons per hour: $E = 55.0 * P^{0.11} - 40$

Where E = rate of emissions in pounds per hour and P = process weight rate in tons per hour.

A.9. Pursuant to ARM 17.8.322(4), Ash Grove shall not burn liquid or solid fuels containing sulfur in excess of 1 pound per million BTU fired, unless otherwise specified by rule or in this permit.

A.10. Pursuant to ARM 17.8.322(5), Ash Grove shall not burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions, unless otherwise specified by rule or in this permit.

A.11. Pursuant to ARM 17.8.324(3), Ash Grove shall not load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device or is a pressure tank as described in ARM 17.8.324(1), unless otherwise specified by rule or in this permit.

A.12. Pursuant to ARM 17.8.324, unless otherwise specified by rule or in this permit, Ash Grove shall not place, store or hold in any stationary tank, reservoir or other container of more than 65,000 gallon capacity any crude oil, gasoline or petroleum distillate having a vapor pressure of 2.5 pounds per square inch absolute or greater under actual storage conditions, unless such tank, reservoir or other container is a pressure tank maintaining working pressure sufficient at all times to prevent hydrocarbon vapor or gas loss to the atmosphere, or is designed and equipped with a vapor loss control device, properly installed, in good working order and in operation.

A.13. Pursuant to ARM 17.8.324, unless otherwise specified by rule or in this permit, Ash Grove shall not use any compartment of any single or multiple-compartment oil-effluent water separator, which compartment receives effluent water containing 200 gallons a day or more of any petroleum product from any equipment processing, refining, treating, storing or handling kerosene or other petroleum product of equal or greater volatility than kerosene, unless such compartment is equipped with a vapor loss control device, constructed so as to prevent emission of hydrocarbon vapors to the atmosphere, properly installed, in good working order and in operation.

A.14. Pursuant to ARM 17.8.302 and ARM 17.8.342, and 40 CFR 63.6, the owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan (if a plan is required by 40 CFR 63.6(e)(3) and the Table for General Provision Applicability of the appropriate subpart), meeting the requirements of 40 CFR 63.6, and must make the plan available upon request. In addition, if the startup, shutdown, and malfunction plan is subsequently revised, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must

make each such previous version available for a period of 5 years after revision of the plan. The owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown, and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in 40 CFR 63.10(d)(5).

A.15. Pursuant to ARM 17.8.1211(1)(c) and 40 CFR Part 98, Ash Grove shall comply with requirements of 40 CFR Part 98 – Mandatory Greenhouse Gas Reporting, as applicable (ARM 17.8.1211(1)(c), NOT an applicable requirement under Title V).

A.16. Ash Grove shall promptly report deviations from permit requirements including those attributable to upset conditions, as upset is defined in the permit. To be considered prompt, deviations shall be reported to DEQ using the schedule and content as described in Section V.E (unless otherwise specified in an applicable requirement) (ARM 17.8.1212).

A.17. On or before February 15 and August 15 of each year, Ash Grove shall submit to DEQ the compliance monitoring reports required by Section V.D. These reports must contain all information required by Section V.D, as well as the information required by each individual emissions unit. For the reports due by February 15 of each year, Ash Grove may submit a single report, if it contains all the information required by Sections V.B & V.D. Per ARM 17.8.1207,

> *any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including semiannual monitoring reports), shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that,* ***"based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete."***

A.18. By February 15 of each year, Ash Grove shall submit to DEQ the compliance certification required by Section V.B. The annual certification required by Section V.B must include a statement of compliance based on the information available that identifies any observed, documented or otherwise known instance of noncompliance for each applicable requirement. Per ARM 17.8.1207,

> *any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including annual certifications), shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that,* ***"based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete."***

B. EU001 – Air Separator (AS)

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
B.1, B.4, B.7, B.9, B.10, B.11	Opacity	10%	Method 9	As Required by DEQ and Section III.A.1	Semi-Annual
B.2, B.5, B.7, B.9, B.10, B.11	Particulate Matter	0.01 gr/dscf	Method 5	Once during 5-year permit term	Semi-Annual
B.3, B.6, B.8, B.10, B.11	Emission Control Equipment	Operation and maintenance of emission control equipment	Operation and maintenance of baghouse	Whenever process equipment is operating	Semi-Annual

Conditions

B.1. Ash Grove shall not cause or authorize emissions to be discharged into the outdoor atmosphere from the air separator baghouse (DA-21) that exhibit an opacity of 10% or greater averaged over six consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart F).

B.2. Particulate emissions from the air separator baghouse (DA-21) shall not exceed 0.01 gr/dscf (ARM 17.8.752).

B.3. Ash Grove shall operate and maintain a baghouse to control emissions from the high efficiency air separator (ARM 17.8.752).

Compliance Demonstration

B.4. As required by DEQ and Section III.A.1, Ash Grove shall perform a Method 9 test, to demonstrate compliance with the 10% opacity limit in Section III.B.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures manual (ARM 17.8.106 and ARM 17.8.1213).

B.5. A Method 5 or other DEQ approved test shall be performed once during the 5-year permit period, to monitor compliance with the particulate emission limit in Section III.B.2. The test shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual and maintained on site (ARM 17.8.106 and ARM 17.8.1213).

B.6. Ash Grove shall operate, inspect, and maintain the baghouse in accordance with Appendix E to monitor compliance with Section III.B.3(ARM 17.8.1213).

Recordkeeping

B.7. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).

B.8. Ash Grove shall maintain, on site, records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E. All

inspection and maintenance records must be available to DEQ for inspection and must be submitted to DEQ upon request (ARM 17.8.1212).

Reporting

B.9. Any compliance source test reports must be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

B.10. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

B.11. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of results of any source testing that was performed during the semiannual period; and

b. A summary of any instance that the baghouse was not operated and maintained as required by Section III.B.6.

C. EU002 – Clinker Cooler (CLC)

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
C.1, C.4, C.7, C.11, C.12.	Opacity	20%	Method 9	As Required by DEQ and Section III.A.1	Semiannual
C.2, C.3, C.5, C.6, C.7, C.8, C.9, C.10, C.11, C.12.	Particulate Matter	0.07 lb/ton of clinker produced	Method 5 (or equivalent)	Annually	Semiannual
			CPMS	Ongoing	40 CFR 63, Subpart LLL
		Operation and maintenance of baghouse (DA-23)	Operate and maintain baghouse in accordance with Appendix E	Maintenance Log	Semiannual

Conditions

C.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from the clinker cooler baghouse that exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.304(1)).

C.2. Ash Grove may not exceed a PM emission rate of 0.07 lb/ton of clinker produced from the clinker cooler stack, excluding startup and shutdown periods of operation, based on an annual Method 5 stack performance test and PM continuous parametric monitoring system

(CPMS). Condensable particulate matter is not included in Method 5 reporting and is not included in determining compliance (ARM 17.8.749, ARM 17.8.342, and 40 CFR 63, Subpart LLL).

C.3. Ash Grove shall operate and maintain the baghouse (DA-23) when process equipment is operating (ARM 17.8.749).

Compliance Demonstration

C.4. As required by DEQ and Section III.A.1, Ash Grove shall perform a Method 9 test, to demonstrate compliance with the 20% opacity limit in Section III.C.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures manual and maintained on site (ARM 17.8.106 and ARM 17.8.1213).

C.5. Ash Grove shall monitor the clinker cooler stack emissions to demonstrate compliance with the PM limit of 0.07 lb/ton of clinker in Section III.C.2 as follows: (a) annually conducting a Method 5 (or equivalent) performance stack test; and (b) operating a PM CPMS. Condensable particulate matter is not included in Method 5 reporting and is not included in determining compliance (40 CFR 63, Subpart LLL, ARM 17.8.105, ARM 17.8.106, ARM 17.8.749, and ARM 17.8.342).

C.6. Ash Grove shall operate, inspect, and maintain the baghouse in accordance with Appendix E to monitor compliance with Section III.C.3 (ARM 17.8.1213).

Recordkeeping

C.7. All compliance source test recordkeeping shall be performed in accordance with the test method used, the Montana Source Test Protocol and Procedures Manual, and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).

C.8. Ash Grove shall calculate and record the PM CPMS arithmetic average operating parameter in units of the operating limit on a 30-operating day rolling average basis, updated at the end of each kiln operating day. For any exceedance of the 30-process operating day PM CPMS average value from the established operating parameter, Ash Grove must:

a. Within 48 hours of the exceedance, visually inspect the APCD;

b. If inspection of the APCD identifies the cause of the exceedance, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and

c. Within 30 days of the exceedance or at the same time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the PM CPMS operating limit within 45 days. Ash Grove is not required to conduct additional testing for any exceedances that occur between the time of the original exceedance and the PM emissions compliance test required under this paragraph.

PM CPMS exceedances leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a presumptive violation of this condition (ARM 17.8.342 and 40 CFR 63, Subpart LLL).

C.9. Ash Grove shall maintain, on site, records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E. All inspection and maintenance records must be available to DEQ for inspection and must be submitted to DEQ upon request (ARM 17.8.1212).

Reporting

C.10. Ash Grove shall comply with all applicable reporting requirements contained in 40 CFR 63 Subpart LLL (ARM 17.8.1212 and 40 CFR Part 63).

C.11. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

C.12. The semiannual reporting shall provide the following (ARM 17.8.1212):

a. A summary of results of any source testing that was performed during that semiannual period; and

b. A summary of any instance that the baghouse was not operated and maintained as required by Section III.C.6.

D. EU003 – Conveyor/Primary Crushing (CPC)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
D.1, D.4, D.7, D.9, D.10	Opacity	7%	Method 9	Once during 5-year permit term	As required by the Protocol
D.2,D.5, D.7, D.9, D.10	Particulate Matter	0.02 gr/dscf	Method 5	Once during 5-year permit term	As required by the Protocol
D.3,D.6, D.8, D.9, D.10	Emissions Control Equipment	Operation and maintenance of emission control equipment	Operation and maintenance of baghouse	Semiannual	Semiannual

Conditions

D.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from any transfer point or belt conveyor or from any other affected facility any stack emissions that exhibit greater than 7 percent opacity (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

D.2. Particulate emissions from the dust collection system (DA-1) shall not exceed 0.02 gr/dscf (ARM 17.8.752).

D.3. Ash Grove shall operate and maintain emission control equipment when process equipment is operating (ARM 17.8.749).

Compliance Demonstration

D.4. A Method 9 test shall be performed once during the 5-year permit period to monitor compliance with the 7% opacity limit in Section III.D.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

D.5. A Method 5 or other DEQ approved test shall be performed once during the 5-year permit period to monitor compliance with the particulate emission limitation in Section III.D.2. The test methods and procedures shall be conducted in accordance with 40 CFR 60.675(b) and the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

D.6. Ash Grove shall inspect and maintain the baghouse in accordance with Appendix E of this permit to monitor compliance with Section III.D.3 (ARM 17.8.1213).

Recordkeeping

D.7. All source testing recordkeeping shall be performed in accordance with the Source Test Protocol and Procedures Manual and maintained on site (ARM 17.8.106 and ARM 17.8.1212).

D.8. Ash Grove shall maintain records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to DEQ for inspection and must be submitted to DEQ upon request (ARM 17.8.1212).

Reporting

D.9. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

D.10. The semiannual reporting shall provide a summary of results of any source testing that was performed during that semiannual period (ARM 17.8.1212).

E. EU004 – Fuel Conveyors (FC)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
E.1, E.3, E.4, E.5, E.6, E.7, E.8	Opacity	20%	Method 9	As required by DEQ and Section III.A.1	Semiannual
			Use and maintenance of structural enclosures and covers	Whenever process equipment is operating	Semiannual
E.2, E.4, E.5, E.6, E.7	Particulate Matter	$E=55.0p^{0.11}-40$	Use and maintenance of structural enclosures and covers	Whenever process equipment is operating	Semiannual

Conditions

E.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from the Fuel Conveyors that exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.340, 40 CFR 60, Subpart Y and ARM 17.8.304).

E.2. Pursuant to ARM 17.8.310, the particulate emissions from process weight shall not exceed the value calculated by $E=55.0p^{0.11}-40$, where E = rate of emission in pounds per hour and p = process weight rate in tons per hour (ARM 17.8.310).

Compliance Demonstration

E.3. As required by DEQ and Section III.A.1, Ash Grove shall conduct either a semiannual Method 9 source test or a weekly visual survey of visible emissions on the Fuel Conveyors. Under the visual survey option, once per calendar week, during daylight hours, Ash Grove shall visually survey the Fuel Conveyors for any visible emissions. If visible emissions are observed during the visual survey, Ash Grove must either conduct a Method 9 source test, or shut down the equipment for repairs. The Method 9 source test or source shutdown must begin within one hour of any observation of visible emissions. If visible emissions meet or exceed 15% opacity based on the Method 9 source test, Ash Grove shall immediately take corrective action to contain or minimize the source of emissions. If corrective actions are taken, then Ash Grove shall immediately conduct a subsequent visual survey (and subsequent Method 9 source test if visible emissions remain) to monitor compliance. The person conducting the visual survey shall record the results of the survey (including the results of any Method 9 source test performed) in a log, including any corrective action taken. Conducting a visual survey does not relieve Ash Grove of the liability for a violation determined using Method 9 (ARM 17.8.101(27)).

Method 9 source tests must be performed in accordance with the Montana Source Test Protocol and Procedures Manual, except that prior notification of the test is not required. Each observation period must be a minimum of 6 minutes unless any one reading is 20% or greater, then the observation period must be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period (ARM 17.8.1213).

E.4. Whenever process equipment is operating, Ash Grove shall use and maintain, as they were intended, all conveyor covers, transfer point cover, or structural enclosures surrounding process equipment to monitor compliance with Section III.E.1 and III.E.2 (ARM 17.8.1213).

Recordkeeping

E.5. If visual surveys are performed, Ash Grove shall maintain a log to verify that the visual surveys were performed as specified in Section III.E.3. Each log entry must include the date, time, results of survey (and results of subsequent Method 9, if applicable), and observer's initials. If any corrective action is required, the time, date, observer's initials, and any preventive or corrective action taken must be recorded in the log (ARM 17.8.1212).

E.6. Ash Grove shall maintain on site a log of all repair and maintenance activity to structural enclosures. The log must include, but is not limited to, the date, time, and action(s) taken. The maintenance log shall be maintained as a permanent business record for at least five years following the activity. The log shall be available to DEQ for inspection and must be submitted to DEQ upon request (ARM 17.8.106 and ARM 17.8.1212).

Reporting

E.7. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

E.8. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during the semiannual period (ARM 17.8.1212).

F. EU005 –Fuel Transfer (FT)

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration		Reporting Requirements
			Method	Frequency	
F.1, F.3, F.5, F.6, F.7, F.8	Opacity	20%	Method 9	As required by DEQ and Section III.A.1	Semiannual
F.2, F.4, F.5, F.6, F.7	Particulate Matter	$E=55.0p^{0.11}-40$	Use and maintenance of structural enclosure	Whenever process equipment is operating	Semiannual

Conditions

F.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from Fuel Transfer that exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.340, 40 CFR 60, Subpart Y. and ARM 17.8.304(2)).

F.2. Pursuant to ARM 17.8.310, the particulate emissions from process weight shall not exceed the value calculated by $E = 55.0p^{0.11}-40$, where E = rate of emission in pounds per hour and p = process weight rate in tons per hour (ARM 17.8.310).

Compliance Demonstration

F.3. As required by DEQ and Section III.A.1, Ash Grove shall conduct either a semiannual Method 9 source test or a weekly visual survey of visible emissions on the Fuel Transfer. Under the visual survey option, once per calendar week, during daylight hours, Ash Grove shall visually survey the Fuel Transfer for any visible emissions. If visible emissions are observed during the visual survey, Ash Grove must either conduct a Method 9 source test, or shut down the equipment for repairs. The Method 9 source test or source shutdown must begin within one hour of any observation of visible emissions. If visible emissions meet or exceed 15% opacity based on the Method 9 source test, Ash Grove shall immediately take corrective action to contain or minimize the source of emissions. If corrective actions are taken, then Ash Grove shall immediately conduct a subsequent visual survey (and subsequent Method 9 source test if visible emissions remain) to monitor compliance. The person conducting the visual survey shall record the results of the survey (including the results of any Method 9 source test performed) in a log, including any corrective action taken. Conducting a visual survey does not relieve Ash Grove of the liability for a violation determined using Method 9 (ARM 17.8.101(27)).

Method 9 source tests must be performed in accordance with the Montana Source Test Protocol and Procedures Manual, except that prior notification of the test is not required. Each observation period must be a minimum of 6 minutes unless any one reading is 20% or greater, then the observation period must be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time (ARM 17.8.1213).

F.4. During truck or rail car unloading, Ash Grove shall use and maintain the structural enclosure surrounding the hopper, dual flow feeder, and a portion of a conveyor belt CB-22 for monitoring pertaining to the particulate matter limit in Section III.F.2 (ARM 17.8.309).

Recordkeeping

F.5. If visual surveys are performed, Ash Grove shall maintain a log to verify that the visual surveys were performed as specified in Section III.F.3. Each log entry must include the date, time, results of survey (and results of subsequent Method 9, if applicable), and observer's initials. If any corrective action is required, the time, date, observer's initials, and any preventive or corrective action taken must be recorded in the log (ARM 17.8.1212).

F.6. Ash Grove shall maintain on site a log of all repair and maintenance activity to structural enclosures. The log must include, but is not limited to, the date, time, and action(s) taken. The maintenance log shall be maintained as a permanent business record for at least five years following the activity. The log shall be available to DEQ for inspection and must be submitted to DEQ upon request (ARM 17.8.106 and ARM 17.8.1212).

Reporting

F.7. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

F.8. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during the semiannual period (ARM 17.8.1212).

G. EU006 – Cement Kiln (KILN)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
G.1, G.13, G.14, G.27, G.30, G.39, G.42, G.43	Opacity	40%	Operation and maintenance of Pulse Jet Baghouse	Whenever process equipment is operating	Semiannual
			Method 9	As requested by DEQ	Semiannual
G.2, G.13, G.14, G.15, G.16, G.17, G.18, G.25, G.27, G.29, G.30, G.35, G.36, G.39, G.41, G.42, G.43	Filterable Particulate Matter	0.07 lb/ton of clinker based on a 30-day rolling average from the kiln during startup, shutdown, malfunction and normal operation	Operation and maintenance of Pulse Jet Baghouse	Whenever process equipment is operating	Semiannual
			Method 5	Annually	Semiannual
			CPMS	Ongoing	Semiannual
G.3, G.16, G.17, G.18, G.30, G.33, G.35, G.36, G.39, G.40, G.41, G.42, G.43	Sulfur Dioxide (SO_2)	2.0 lb/ton clinker (30-day rolling average) from the kiln during startup, shutdown, malfunction and normal operation	CEMS	Ongoing	Semiannual
		Semi-Dry Scrubbing Control			
G.4, G.5, G.30, G.33, G.35, G.36, G.39, G.40, G.41, G.42, G.43	Oxides of Nitrogen (NOx)	Operate Low NOx Burner Technology	CEMS	Ongoing	Semiannual
		Operate SNCR			
		7.5 lb/ton of clinker (30-day rolling average) from the kiln during startup, shutdown, malfunction and normal operation			
G.6, G.19, G.28, G.42, G.43	Operational Limit (glass)	800 tons/rolling 12-month period	Recordkeeping	When using glass	Semiannual
G.7, G.20, G.23, G.26, G.27, G.36, G.42, G.43	Dioxins/Furans	0.20 ng per dscm corrected to 7% Oxygen	Method 23	Every 30 Months	Semiannual
			Inspection of Combustion Components	Annual	Semiannual

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
G.8, G.21, G.26, G.30, G.34, G.35, G.36, G.39, G.42, G.43	Mercury	55 lbs per million tons of clinker (30-day rolling average)	40 CFR 63, Subpart LLL	40 CFR 63, Subpart LLL	40 CFR 63, Subpart LLL
G.9, G.10, G.22, G.26, G.30, G.36, G.39, G.42, G.43	Total Hydrocarbons (THC) or Total Organic HAP	THC 24 ppm or Organic Air Toxics – 12 ppmv	40 CFR 63, Subpart LLL	40 CFR 63, Subpart LLL	40 CFR 63, Subpart LLL
G.11, G.23, G.26, G.30, G.31, G.36, G.39, G.42	Operational Limit	Inlet temperature to PMCD	Continuous Monitor	Ongoing	Semiannual
G.12, G.24, G.26, G.30, G.42	Work Practices	Work Practices	40 CFR 63, Subpart LLL	40 CFR 63, Subpart LLL	40 CFR 63, Subpart LLL

Conditions

G.1. Ash Grove may not cause or authorize to be discharged into the atmosphere from the cement kiln any stack emissions that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304 and ARM 17.8.752).

G.2. Ash Grove shall install and operate baghouse control technology on the kiln exhaust and may not exceed a filterable PM emission rate of 0.07 lb/ton of clinker based on a 30-day rolling average from the kiln during startup, shutdown, malfunction, and normal operation (Consent Decree 57 and ARM 17.8.749).

G.3. Ash Grove shall install and operate Semi-Dry Scrubbing control technology on the kiln stack and comply with an SO_2 emission limit of 2.0 lb/ton of clinker based on a 30-day rolling average including startup, shutdown, and malfunction periods (Consent Decree 47 and ARM 17.8.749).

G.4. Ash Grove shall continuously operate low NOx burner technology on the kiln (Consent Decree 27 and ARM 17.8.749).

G.5. Ash Grove shall install and operate selective non-catalytic reduction (SNCR) control technology and comply with a NOx emission limit of 7.5 lb/ton of clinker based on a 30-day rolling average including startup, shutdown, and malfunction periods (Consent Decree 28 and ARM 17.8.749).

G.6. The amount of post-consumer recycled glass used by Ash Grove in the cement kiln shall be limited to 800 tons during any rolling 12-month period (ARM 17.8.752).

G.7. Ash Grove may not cause to be discharged into the atmosphere from the kiln, excluding hours of operation during startup and shutdown, any gases that contain dioxins and furans (D/F) in excess of (40 CFR 63, Subpart LLL, ARM 17.8.342, and ARM 17.8.749):

a. 0.20 nanograms per dry standard cubic meter (ng per dscm) ($8.7x10^{-11}$ grains per dry standard cubic feet (gr per dscf)) Toxic Equivalent (TEQ) corrected to 7% oxygen; and

b. 0.40 ng per dscm ($1.7x10^{-10}$ gr per dscf) TEQ corrected to 7% oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204° C (400° F) or less.

G.8. Ash Grove may not exceed emissions of 55 pounds of mercury per million tons of clinker from the main kiln stack averaged over 30 days of continuous monitoring excluding hours of operation of startup, and shutdown (40 CFR 63, Subpart LLL, ARM 17.8.342 and ARM 17.8.749).

G.9. Ash Grove may not exceed emissions of 24 parts per million by volume (ppmv) THC (measured as propane and corrected to 7% oxygen) from the main kiln stack averaged over 30 days of continuous monitoring excluding hours of operation of startup and shutdown (40 CFR 63, Subpart LLL, ARM 17.8.342, and ARM 17.8.749).

G.10. As an alternative to the THC limit in Section III.G.9, Ash Grove may comply with a 12 ppmv on a rolling 30-day average organic air toxic limit from the main kiln stack excluding hours of operation of startup and shutdown (40 CFR 63, Subpart LLL, ARM 17.8.342, and ARM 17.8.749).

G.11. Ash Grove shall utilize "work practices" for the existing kiln as identified in 40 CFR 63.1346(f), 40 CFR 63.1346(g), and 40 CFR 63.1348(b)(9) (40 CFR 63, Subpart LLL, ARM 17.8.342, and ARM 17.8.749).

G.12. Ash Grove shall operate the kiln such that the temperature of the gas at the inlet to the kiln particulate matter control device (PMCD) does not exceed the applicable temperature limit specified in 40 CFR 63.1346(b) (ARM 17.8.342 and 40 CFR 63, Subpart LLL).

Compliance Demonstration

G.13. Ash Grove shall inspect and maintain the Pulse Jet Baghouse in accordance with Appendix E of this permit to monitor compliance with the opacity and particulate limits in Section III.G.1 and Section III.G.2 (ARM 17.8.749).

G.14. Ash Grove shall perform a Method 9 test as requested by DEQ. The test methods shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

G.15. Ash Grove shall install, operate, and maintain a PM CPMS on the kiln and establish a Site-Specific Operating Limit (SSOL) for PM in accordance with the requirements of Appendix B of the Consent Decree and 40 CFR 63.1350(b) and (d). Ash Grove shall conduct the performance test using EPA Method 5 or Method 5I of Appendix A-3 of 40 CFR Part 60. The test methods shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual with the following exceptions: if demonstrating compliance with 40 CFR Part 52.1396, the test shall consist of three runs, with each run at least 120 minutes in duration and each run collecting a minimum sample of 60 dry standard cubic feet, per 40

CFR Part 52.1396. Condensable particulate matter is not included in Method 5 reporting and is not included in determining compliance. The compliance demonstration shall be an initial test and within 365 operating days thereafter. Ash Grove may employ the SSOL methodology in 40 CFR 63.1349(b) in lieu of this methodology (Consent Decree 56, 59, 60, ARM 17.8.342, and ARM 17.8.749).

G.16. Ash Grove shall record the hourly clinker production rates in accordance with the requirements found at 40 CFR 63.1350(d) (40 CFR 63, Subpart LLL, ARM 17.8.342, and ARM 17.8.749).

G.17. Ash Grove shall record the daily clinker production rates in accordance with the requirements found at 40 CFR 60.63(b) (ARM 17.8.340 and 40 CFR 52.1396).

G.18. Ash Grove shall install and operate a NOx CEMS and SO_2 CEMS at each stack from which the kiln directly discharges emissions. The CEMS shall be operated at all times during kiln operation except during CEMS breakdowns, repairs, calibration checks and zero and span adjustments (Consent Decree 32, 34, 51, 52, and ARM 17.8.749).

G.19. Ash Grove shall maintain a log of the amount of recycled glass used in the kiln each month. By the 25th day of each month, Ash Grove shall total the amount of recycled glass used in the kiln during the previous 12 months to monitor compliance with the limitation in Section III.G.6 (ARM 17.8.749 and ARM 17.8.1213).

G.20. Ash Grove shall monitor compliance with the D/F emission limit by conducting a performance test using Method 23 of Appendix A of 40 CFR 60. The performance test shall be conducted every 30 months. Ash Grove shall repeat the performance test for the kiln within 90 days of initiating any significant change in the feed or fuel from that used in the previous performance test (40 CFR 63.1349, ARM 17.8.342 and ARM 17.8.1213).

G.21. Ash Grove shall monitor compliance with the mercury limit in Section G.8 using a mercury CEMS or sorbent trap monitoring system as specified in 40 CFR 63.1350(k)(ARM 17.8.105, ARM 17.8.106, ARM 17.8.342, ARM 17.8.749, and 40 CFR 63, Subpart LLL).

G.22. Ash Grove shall demonstrate compliance with the THC limit (measured as propane and corrected to 7% oxygen) in Section III.G.9 or the alternative limit in Section III.G.10 in accordance with the requirements of 40 CFR 63.1350(i) or (j). (ARM 17.8.105, ARM 17.8.106, ARM 17.8.342, ARM 17.8.749, and 40 CFR 63, Subpart LLL).

G.23. Ash Grove shall install, calibrate, maintain and continuously operate a continuous monitor to record the temperature of the exhaust gases from the kiln upstream of the kiln PM control device for monitoring of D/F emissions. The calibration of all thermocouples and other temperature sensors shall be completed at least once every 3 months (40 CFR 63.1350, ARM 17.8.342 and ARM 17.8.1213).

G.24. Ash Grove shall conduct an inspection of the components of the kiln's combustion system at least once per year (40 CFR 63.1350 and ARM 17.8.1213).

Recordkeeping

G.25. Ash Grove shall maintain on site records of all inspection and maintenance activities performed on the Pulse Jet Baghouse in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to DEQ upon request (ARM 17.8.1212).

G.26. Ash Grove shall comply with all applicable recordkeeping and notification requirements contained in 40 CFR 63 Subpart LLL (ARM 17.8.342 and 40 CFR Part 63, Subpart LLL).

G.27. All test records must be maintained on site and submitted to DEQ in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).

G.28. Ash Grove shall maintain on site, records required by Section III. G.19 and submit the information to DEQ upon request (ARM 17.8.1212).

G.29. Ash Grove shall calculate and record the PM CPMS arithmetic average operating parameter in units of the operating limit on a 30-day operating day rolling average basis, updated at the end of each kiln operating day. For any exceedance of the 30-process operating day PM CPMS average value from the establish operating parameter, Ash Grove must:

a. Within 48 hours of the exceedance, visually inspect the APCD;

b. If inspection of the APCD identifies the cause of the exceedance, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and

c. Within 30 days of the exceedance or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or reestablish the PM CPMS operating limit within 45 days. Ash Grove is not required to conduct additional testing for any exceedances that occur between the time of the original exceedance and the PM emission compliance test required under this paragraph.

PM CPMS exceedances leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a presumptive violation of this condition (ARM 17.8.342 and 40 CFR 63, Subpart LLL).

G.30. Ash Grove shall calculate and record the 30-day operating day rolling emission rates of SO_2 and NOx in lb/ton of clinker produced including startup, shutdown, and malfunction periods, as the total of all hourly emissions data for the cement kiln in the preceding 30 days, divided by the total tons of clinker produced in that kiln during the same 30-day operating period, using the following equation (40 CFR Part 52.1396):

$$E_D = k \frac{1}{(n)} \sum_{i=1}^{n} C_i Q_i / P_i$$

Where:
E_D = 30 kiln operating day average emission rate of NOx or SO_2, lb/ton of clinker;
C_i = Concentration of NOx or SO_2 for hour i, ppm;

Q_i = volumetric flow rate of effluent gas for hour i, where Ci and Qi are on the same basis (either wet or dry), scf/hr;
P_i = total kiln clinker produced during production hour i, ton/hr;
k = conversion factor, 1.194 × 10E-7 for NOx and 1.660 × 10E-7 for SO_2; and.
n = number of kiln operating hours over 30 kiln operating days, n = 1 to 720

For each kiln operating hour for which Ash Grove does not have at least one valid 15-minute CEMS data value, Ash Grove must use the average emissions rate (lb/hr) from the most recent previous hour for which valid data are available. Hourly clinker production shall be determined by Ash Grove in accordance with the requirements found at 40 CFR 60.63(b). Ash Grove must operate the monitoring system and always collect data at all required intervals the kiln is operating, except for periods of monitoring system malfunction, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control devices (including, as applicable, calibration checks and zero and span adjustments) (40 CFR 52.1396, 40 CFR 60, Subpart F and ARM 17.8.340).

At the end of each kiln operating day, Ash Grove shall calculate and record a new 30-day rolling average SO_2 and NOx emission rate in lb/ton clinker from the arithmetic average of all valid hourly emission rates for the current kiln operating day and the previous 29 successive kiln operating days for each unit (40 CFR Part 52.1396).

a. Ash Grove shall maintain on site the following records for at least five years (40 CFR Part 52.1396 and ARM 17.8.1212):

b. All CEMS data, including the date, place, and time of sampling or measurement; parameters sampled or measured; and results.

c. All particulate matter stack test results.

d. All records of clinker production.

e. Records of quality assurance and quality control activities for emissions measuring systems including, but not limited to, any records required by 40 CFR Part 60, Appendix F, Procedure 1.

f. Records of all major maintenance activities conducted on emission units, air pollution control equipment, CEMS and clinker production measurement devices.

g. Any other records required by 40 CFR Part 60, Subpart F, or 40 CFR Part 60, Appendix F, Procedure 1.

G.31. Ash Grove shall maintain on site, records of calibration as required by Section III.G.23 (ARM 17.8.1212).

G.32. Ash Grove shall meet Regional Haze Requirements 40 CFR 52.1396 for recordkeeping, reporting, and equipment operation requirements as identified in 40 CFR 52.1396(h), 52.1396(i), and 52.1396(m), respectively (40 CFR 52.1396 and ARM 17.8.749)

G.33. Ash Grove shall use the CEMS required under Section III.G.18 to monitor and record the NOx and SO_2 emission rate in units of pounds of NOx and SO_2 per ton of clinker and shall

be installed, certified, calibrated, maintained, and operated in accordance with the applicable requirements of 40 CFR Part 60. For purposes of the NOx and SO_2 limits in Section III.G.3 and III.G.5, all emissions of NOx and SO_2 from the kiln stack shall be measured by CEMS. Emissions from the kiln (in pounds) shall be calculated for each Operating Day and the previous 29 Operating Days and the total divided by the sum of the clinker produced (in tons) that Operating Day and the previous 29 Operating Days and the resulting value compared to the limit. During any time when CEMS are inoperable and otherwise not measuring emissions, Ash Grove shall use the average emission rate (lb/hr) from the most recent previous hour for which valid data are available (Consent Decree 32, 34, 35, 36, 51, 52, 53, 54, and ARM 17.8.749).

G.34. Ash Grove shall calculate and record the 30-operating day rolling emission rates of mercury in lb/million ton of clinker produced, as specified in 40 CFR 63.1350(k) (ARM 17.8.342 and 40 CFR 63, Subpart LLL).

G.35. Ash Grove shall determine and record hourly and daily clinker production rates by either one of the two following methods:

a. Install, calibrate, maintain, and operate a permanent weight scale system to measure and record weight rates of the amount of clinker produced in tons of mass per hour. The system for measuring hourly clinker production must be maintained within 5 ± percent accuracy; or

b. Install, calibrate, maintain, and operate a permanent weight scale system to measure and record weight rates of the amount of feed to the kiln in tons of mass per hour. Ash Grove shall calculate hourly clinker production rates using a kiln-specific feed-to-clinker ratio based on reconciled clinker production determined for accounting purposes and recorded feed rates. This ratio should be updated no less frequently than once per month. If this ratio changes at clinker reconciliation, the new ratio must be used going forward, but it is not necessary to retroactively change clinker production rates previously estimated. The system for measuring hourly clinker production must be maintained within ±5 percent accuracy (Consent Decree 33, 63.1350, 52.1396 and ARM 17.8.749).

G.36. For each continuous monitoring system (CMS) required in this section, Ash Grove must develop, and submit to DEQ for approval upon request, a site-specific monitoring plan that addresses the following paragraphs "a" through "c". This site-specific monitoring plan, if requested, must be submitted at least 30 days before the initial performance evaluation of Ash Grove's CMS (ARM 17.8.749).

a. Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).

b. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

c. Performance evaluation procedures and acceptable criteria (e.g., calibrations).

Reporting

G.37. Ash Grove shall submit Method 9, Method 5, Method 6 or other DEQ approved test reports in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212)

G.38. Ash Grove shall comply with all applicable reporting and notification requirements contained in 40 CFR 63 Subpart LLL (ARM 17.8.342 and 40 CFR Part 63, Subpart LLL).

G.39. Ash Grove shall submit a summary report semiannually, which contains the information specified in 40 CFR 63.10(e)(3)(vi) and 40 CFR 63.1354. The summary report shall include the following (ARM 17.8.1212, ARM 17.8.342 and 40 CFR Part 63):

a. The company name and address of the affected source (40 CFR 63.10);

b. An identification of each hazardous air pollutant monitored at the affected source (40 CFR 63.10);

c. The beginning and ending dates of the reporting period (40 CFR 63.10);

d. A brief description of the process units (40 CFR 63.10);

e. The emission and operating parameter limitations specified in the relevant standard(s) (40 CFR 63.10);

f. The monitoring equipment manufacturer(s) and model number(s) (40 CFR 63.10);

g. The date of the latest CMS certification or audit (40 CFR 63.10);

h. The total operating time of the affected source during the reporting period (40 CFR 63.10);

i. An emission data summary (or similar summary if the owner or operator monitors control system parameters) (40 CFR 63.10);

j. A CMS performance summary (or similar summary if the owner or operator monitors control system parameters) (40 CFR 63.10);

k. A description of any changes in CMS, processes, or controls since the last reporting period (40 CFR 63.10);

l. The name, title, and signature of the responsible official who is certifying the accuracy of the report (40 CFR 63.10);

m. The date of the report (40 CFR 63.10);

n. All exceedances of maximum control device inlet gas temperature limits (40 CFR 63.1354);

o. All failures to calibrate thermocouples and other temperature sensors (40 CFR 63.1354);

p. Notification of failure to conduct any combustion system component inspections conducted within the reporting period. (40 CFR 63.1354); and

q. All failures to comply with any provision of the Operation and Maintenance Plan (40 CFR 63.1354).

G.40. Ash Grove shall submit excess emissions reports for SO_2 and NOx emissions exceeding the limits in Sections III.G.3 and III.G.5. Reports shall be submitted semiannually, no later than the 30th day following the end of each semiannual period, respectively. The excess emissions reports shall be submitted to DEQ as well as to the Director, Office of Enforcement, Compliance and Environmental Justice, U.S. Environmental Protection Agency, Region 8, and shall include the following:

a. The magnitude, date(s), and duration of each period of excess emission,

b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the unit,

c. The nature and cause of a malfunction (if known),

d. The corrective action taken, or preventative measures adopted,

e. CEMS performance reports including dates and duration of each period during which the CEMS was inoperative, reason(s) why the CEMS was inoperative, steps taken to prevent recurrence, and CEMS repairs or adjustments, and

f. A statement indicating when no excess emissions have occurred or the CEMS has not been inoperative, repaired, or adjusted during the reporting period.

If installation of additional emission controls is necessary to comply with the SO_2 and NOx emissions limitations under this rule, compliance is extended to October 18, 2017 (within five years of the effective date of this rule) in accordance with 40 CFR Part 52.1396 (40 CFR Part 52.1396).

G.41. Ash Grove shall comply with all applicable reporting and notification requirements contained in Section XIV of the Consent Decree (Consent Decree Section XIV and ARM 17.8.1212).

G.42. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

G.43. The semiannual monitoring report shall provide the following (ARM 17.8.1212 and 40 CFR Part 52.1396):

a. A summary of results of any source testing that was performed during that semiannual period; and

b. The results of any CEMS performance tests required by 40 CFR Part 60, Appendix F, Procedure 1.

H. EU007 – Product Separator and Cement Coolers (PSC)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
H.1, H.4, H.7, H.8, H.9, H.10, H.11	Opacity	40%	Method 9	Once during 5-year permit term	As required by Protocol
H.2, H.5, H.8, H.9, H.10, H.11	Particulate Matter	0.02 gr/dscf	Method 5	Once during 5-year permit term	As required by Protocol
H.3, H.6, H.7, H.10, H.11	Emission Control Equipment	Operation and maintenance of emission control equipment	Operation and maintenance of baghouse	Whenever process equipment is operating	Semiannual

Conditions

H.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304).

H.2. Particulate emissions from the dust collection system (DA-9 East) shall not exceed 0.02 gr/dscf (ARM 17.8.752).

H.3. Ash Grove shall operate and maintain emissions control equipment when process equipment is operating (ARM 17.8.749).

Compliance Demonstration

H.4. Ash Grove shall perform a Method 9 test once during the 5-year permit period to monitor compliance with the 40% opacity limit in Section III.H.1. The test shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

H.5. A Method 5 or other DEQ approved test shall be performed once during the 5-year permit period to monitor compliance with the particulate emission limit in Section III.H.2. The test shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

H.6. Ash Grove shall operate, inspect, and maintain a baghouse in accordance with Appendix E to monitor compliance with Section III.H.3 (ARM 17.8.1213).

Recordkeeping

H.7. Ash Grove shall maintain on site records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E. All

inspections and maintenance records must be available to DEQ for inspection and must be submitted to DEQ upon request (ARM 17.8.1212).

H.8. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).

Reporting

H.9. All test reports shall be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).

H.10. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

H.11. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during the semiannual period (ARM 17.8.1212).

I. EU008 –Road Dust (RD)

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
I.1, I.3,I.5, I.6, I.7, I.8	Opacity	20%	Visual Survey	Weekly	Semiannual
I.2, I.4, I.5, I.6, I.7, I.8	Airborne Particulate Matter	Reasonable Precautions	Water and/or chemical dust suppressants	As needed	Semiannual

Conditions

I.1. Ash Grove may not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of airborne particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.308(1)).

I.2. Ash Grove shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308(2)).

Compliance Demonstration

I.3. Once per calendar week, during daylight hours, Ash Grove shall visually survey active roads for any sources of excessive emissions. If visible emissions are observed during the visual survey, Ash Grove shall immediately take corrective action to contain or minimize the source of emissions. If corrective actions are taken, then Ash Grove shall immediately conduct a subsequent visual survey. The person conducting the visual survey shall record the results of the survey in a log, including any corrective action taken. Conducting a visual survey does not relieve Ash Grove of the liability for a violation determined using Method 9 (ARM 17.8.101(27) and ARM 17.8.1213).

I.4. Ash Grove shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation (ARM 17.8.752).

Recordkeeping

I.5. Ash Grove shall maintain on site a weekly log recording the results of the visual surveys. The log shall include, but is not limited to, the date, time, observer(s), observer(s) location, the area being surveyed, and the results of the visual survey(s). If any preventative or corrective action is required, the time, date, and a description of the action taken must be included in the log. The log shall be maintained as a permanent business record for at least five years following the activity. The log shall be available to DEQ for inspection and must be submitted to DEQ upon request (ARM 17.8.1212).

I.6. If visual surveys are performed, Ash Grove shall maintain a log to verify that the visual surveys were performed as specified in Section III.I.3. Each log entry must include the date, time, results of survey (and results of subsequent Method 9, if applicable), and observer's initials. If any corrective action is required, the time, date, observer's initials, and any preventive or corrective action taken must be recorded in the log (ARM 17.8.1212).

Reporting

I.7. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

I.8. The semiannual monitoring report shall provide a summary of the log of any preventative and corrective actions as required by Section III.I.5 (ARM 17.8.1212).

J. EU009 –Storage Loadout – B (SLB)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
J.1, J.2, J.3, J.4, J.6, J.7, J.8, J.9	Opacity	40%	Method 9	As required by DEQ and Section III.A.1	As required by the Protocol
			O&M of baghouse	Whenever process equipment is operating	Semiannual
J.2, J.4., J.5., J.6., J.7, J.8, J.9	Particulate Matter	$E=55.0P^{0.11}-40$	Method 5	As required by DEQ and Section III.A.1	As required by the Protocol
			O&M of baghouse	Whenever process equipment is operating	Semiannual

Conditions

J.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304).

J.2. Pursuant to ARM 17.8.310, the particulate emissions from process weight shall not exceed the value calculated by $E=55.0P^{0.11}-40$, where E = rate of emission in pounds per hour and P = process weight rate in tons per hour (ARM 17.8.310).

Compliance Demonstration

J.3. As required by DEQ and Section III.A.1, a Method 9 opacity test shall be performed in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

J.4. Ash Grove shall inspect and maintain a baghouse (DA-15) in accordance with Appendix E to monitor the opacity limit in Section III.J.1 and Section III.J.2 (ARM 17.8.1213).

J.5. As required by DEQ and Section III.A.1, Ash Grove shall perform a Method 5 test or another approved test to monitor compliance with the particulate emissions limit in Section III.J.2. The test shall be performed in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

Recordkeeping

J.6. Ash Grove shall maintain on site records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to DEQ for inspection and must be submitted to DEQ upon request (ARM 17.8.1212).

J.7. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).

Reporting

J.8. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

J.9. The semiannual reporting shall provide a summary of any source testing performed during the reporting period (ARM 17.8.1212).

K. EU010 – Stone Transfer (ST)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
K.1., K.2., K.3., K.4., K.5	Opacity	20%	Method 9	As required by DEQ and Section III.A.1	Semiannual

Conditions

K.1. Ash Grove may not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of airborne particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater over six consecutive minutes (ARM 17.8.308).

Compliance Demonstration

K.2. Ash Grove shall perform a Method 9 test on transfer points as requested by DEQ and Section III.A.1 to monitor compliance with Section III.K.1. The test and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

Recordkeeping

K.3. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).

Reporting

K.4. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

K.5. The semiannual reporting shall provide a summary of any source testing that was performed during the annual period (ARM 17.8.1212).

L. EU011 – Transfer Belt Conveyors (TBC)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
L.1, L.3, L.5, L.6, L.7, L.8, L.9	Opacity	40%	Method 9	As required by DEQ and Section III.A.1	As required by the Protocol
			Operation and maintenance of baghouse	Whenever process equipment is operating	Semiannual
L.2, L.4, L.5, L.6, L.7, L.8, L.9	Particulate Matter	$E=55.0P^{0.11}-40$	Method 5	As required by DEQ and Section III.A.1	As required by the Protocol
			Operation and maintenance of baghouse	Whenever process equipment is operating	Semiannual

Conditions

L.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304).

L.2. The particulate emissions from process weight shall not exceed the value calculated by $E=55.0 * P^{0.11}-40$, where E is the rate of emissions in pounds/hour and P is the process weight rate in tons/hour (ARM 17.8.310).

Compliance Demonstration

L.3. As required by DEQ and Section III.A.1, a Method 9 opacity test shall be performed in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

L.4. Ash Grove shall inspect and maintain a baghouse (DA-4) in accordance with Appendix E to monitor the opacity limit in Section III.L.1 (ARM 17.8.1213).

L.5. As required by DEQ and Section III.A.1, Ash Grove shall perform a Method 5 test or another approved test to monitor compliance with the particulate emissions limit in Section III.L.2. The test shall be performed in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

Recordkeeping

L.6. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).

L.7. Ash Grove shall maintain on site records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to DEQ for inspection and must be submitted to DEQ upon request (ARM 17.8.1212).

Reporting

L.8. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

L.9. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during the semiannual period (ARM 17.8.1212).

M. EU012 – Transfer/Convey to Ball Mill (TBM)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration		Reporting Requirements
			Method	Frequency	
M.1, M.3, M.5, M.6, M.7, M.8, M.9	Opacity	40%	Method 9	As required by DEQ and Section III.A.1	As required by the Protocol

			Operation and Maintenance of baghouse	Whenever process equipment is operating	Semiannual
M.2, M.4, M.5, M.6, M.7, M.8, M.9	Particulate Matter	$E=55.0P^{0.11}-40$	Method 5	As required by DEQ and Section III.A.1	As required by DEQ
			Operation and maintenance of baghouse	Whenever process equipment is operating	Semiannual

Conditions

M.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304).

M.2. The particulate emissions from process weight shall not exceed the value calculated by $E=55.0 * P^{0.11}-40$, where E is the rate of emissions in pounds/hour and P is the process weight in tons/hour (ARM 17.8.310).

Compliance Demonstration

M.3. As required by DEQ and Section III.A.1, Ash Grove shall conduct a Method 9 opacity test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

M.4. As required by DEQ and Section III.A.1, Ash Grove shall conduct a Method 5 test or another DEQ approved test to monitor compliance with the particulate emissions limit in Section III.M.2. The test shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

M.5. Ash Grove shall inspect and maintain the baghouse (DA-6) in accordance with Appendix E of this permit to monitor compliance with the limits in Sections III.M.1 and III.M.2 (ARM 17.8.1213).

Recordkeeping

M.6. All source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).

M.7. Ash Grove shall maintain on site records of all inspection and maintenance activities performed on the baghouse in accordance with Appendix E of this permit. All inspection and maintenance records shall be available to DEQ for inspection and shall be submitted to DEQ upon request (ARM 17.8.1212).

Reporting

M.8. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

M.9. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during the semiannual period (ARM 17.8.1212).

N. EU013 – Transfer to/from Finish Mill (TFM)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
N.1, N.5, N.10, N.12, N.13, N.14	Opacity	40%	Method 9	Every 2 years	As required by the Protocol
N.2, N.6, N.10, N.12, N.13, N.14	Particulate Matter	0.02 gr/dscf	Method 5	Every 2 years	As required by the Protocol
N.3, N.7, N.9, N.13, N.14	Emission Control Equipment	Operation and maintenance of emission control equipment	Operation and maintenance of particulate control device	Whenever process equipment is operating	Semiannual
N.4, N.8, N.11, N.14	PM CAM Plan	ARM 17.8.1506	Provisions from CAM Plan, Appendix F	Ongoing	Semiannual

Conditions

N.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304).

N.2. Particulate emissions from the dust collection system (DA-9 West) shall not exceed 0.02 gr/dscf (ARM 17.8.752).

N.3. Ash Grove shall operate and maintain emission control equipment when process equipment is operating (ARM 17.8.749).

N.4. Ash Grove shall provide a reasonable assurance of compliance with emission limitations or standards for the anticipated range of operations at the Finish Mill House Particulate Control Device for PM (ARM 17.8.1504).

Compliance Demonstration

N.5. Ash Grove shall perform a Method 9 test every two years to monitor compliance with the opacity limit in Section III.N.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

N.6. Ash Grove shall conduct a Method 5 or another DEQ approved test every two years to monitor compliance with the particulate emission limit in Section III.N.2. The test shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

N.7. Ash Grove shall operate, inspect, and maintain a particulate control device in accordance with Appendix E of this permit to monitor compliance with Section III.N.3 (ARM 17.8.1213).

N.8. Ash Grove shall monitor compliance by following the Compliance Assurance Monitoring (CAM) Plan (Appendix F). The CAM Plan, written by Ash Grove in accordance with ARM 17.8.1504 is summarized in Appendix F and is available in full upon request by DEQ or the facility (ARM 17.8.1503 and ARM 17.8.1213).

Recordkeeping

N.9. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).

N.10. Ash Grove shall maintain on site records of all inspection and maintenance activities performed on the particulate control device in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to DEQ for inspection and must be submitted to DEQ upon request (ARM 17.8.1212).

N.11. Ash Grove shall prepare and keep data in accordance with 40 CFR Part 64 and the CAM Plan, Appendix F of this permit (ARM 17.8.1212 and 40 CFR Part 64).

Reporting

N.12. Any compliance source test reports must be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).

N.13. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

N.14. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of results of any source testing that was performed during the semiannual period; and

b. Any reporting required by 40 CFR Part 64 (CAM), Appendix F, as applicable, during that semiannual period.

O. EU014 – Transfer to Limestone Silos (TLS)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
O.1, O.3, O.5, O.6, O.7, O.8, O.9	Opacity	40%	Method 9	As required by DEQ and Section III.A.1	As required by the Protocol
			Operation and maintenance of baghouse	Whenever process equipment is operating	Semiannual
O.2,O.4, O.5, O.6, O.7, O.8, O.9	Particulate Matter	$E=55.0P^{0.11}-40$	Method 5	As required by DEQ and Section III.A.1	As required by the Protocol
			Operation and maintenance of baghouse	Whenever process equipment is operating	Semiannual

Conditions

O.1. Ash Grove may not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304).

O.2. The particulate emissions from process weight shall not exceed the value calculated by $E=55.0 * P^{0.11} – 40$, where E is the rate of emissions in pounds/hour and P is the process weight rate in tons/hour (ARM 17.8.310).

Compliance Demonstration

O.3. As required by DEQ and Section III.A.1, Ash Grove shall perform a Method 9 opacity test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

O.4. As required by DEQ and Section III.A.1, Ash Grove shall perform a Method 5 or another DEQ approved test to monitor compliance with the particulate emissions limit in Section III.O.2. The test shall be conducted in accordance with the Montana Source Test Protocol and Procedures (ARM 17.8.106 and ARM 17.8.1213).

O.5. Ash Grove shall inspect and maintain the baghouse (DA-5) in accordance with Appendix E of this permit to monitor compliance with the limits in Sections III.O.1 and III.O.2 (ARM 17.8.1213).

Recordkeeping

O.6. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual and shall be maintained on site (ARM 17.8.106).

O.7. Ash Grove shall maintain on site records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to DEQ for inspection and must be submitted to DEQ upon request (ARM 17.8.1212).

Reporting

O.8. The annual compliance certification must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

O.9. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during the semiannual period (ARM 17.8.1212).

P. EU015 – Wind Erosion (WE) – (from quarry activities)

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
P.1, P.2, P.3, P.4, P.5	Airborne Particulate Matter	20%	Method 9	As required by DEQ and Section III.A.1	Annually

Conditions

P.1. Ash Grove may not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of airborne particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.308(1)).

Compliance Demonstration

P.2. Ash Grove shall perform a Method 9 test as required by DEQ and Section III.A.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1213).

Recordkeeping

P.3. Ash Grove shall maintain on site any Method 9 test report. The test report shall be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).

Reporting

P.4. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

P.5. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during that semiannual period (ARM 17.8.1212).

Q. EU016 – 105-hp Auxiliary Kiln Drive (Stationary Diesel) Engine (AUXE)

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
Q.1, Q.2, Q.3, Q.4, Q.5	Engine Maintenance	Inspection and Maintenance	40 CFR 63, Subpart ZZZZ	40 CFR 63, Subpart ZZZZ	Semiannual

Conditions

Q.1. Ash Grove shall comply with inspection, maintenance, and operation requirements for the 105-hp Auxiliary Kiln Drive Engine including (ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ):

a. Changing oil and filter every 1,000 hours of operation or annually, whichever comes first;

b. Inspecting air cleaner every 1,000 hours of operation or annually, whichever comes first and replacing as necessary;

c. Inspecting all hoses and belts every 500 hours of operation or annually, whichever comes first and replacing as necessary; and

d. Minimizing the engine's time spent at idle and minimize the engine's startup time to a period of time needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time, the non-startup emission limitations apply.

Compliance Demonstration

Q.2. Ash Grove shall maintain compliance with the described requirements in Section III.Q.1 (ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

Recordkeeping

Q.3. Ash Grove shall keep records of the maintenance conducted on the 105-hp Auxiliary Kiln Drive Engine to demonstrate that the 105-hp Auxiliary Kiln Drive Engine was operated and maintained according to the Ash Grove maintenance plan (ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

Reporting

Q.4. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

Q.5. The semiannual monitoring report shall provide a summary of results of any source testing that was performed during that semiannual period (ARM 17.8.1212).

R. EU017 – Gasoline Dispensing (GD)

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
R.1, R.2, R.3, R.4, R.5	Gasoline Dispensing	40 CFR 63, Subpart CCCCCC	40 CFR 63, Subpart CCCCCC	40 CFR 63, Subpart CCCCCC	Semiannual

Conditions

R.1. When handling gasoline dispensing, Ash Grove shall take measures to (ARM 17.8.342 and 40 CFR 63, Subpart CCCCCC):

a. Minimize gasoline spills;

b. Clean up spills as expeditiously as practical;

c. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; and

d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

Compliance Demonstration

R.2. Ash Grove shall maintain compliance with the described requirements in Section III.R.1 (ARM 17.8.342 and 40 CFR 63, Subpart CCCCCC).

Recordkeeping

R.3. Ash Grove shall maintain records as described in 40 CFR 63.11125, as applicable (ARM 17.8.342 and 40 CFR 63, Subpart CCCCCC).

Reporting

R.4. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

R.5. The semiannual monitoring report shall provide a summary of results of any deviations from 40 CFR 63, Subpart CCCCCC (ARM 17.8.1212).

S. EU018 – Product Loadout 2 (PLO2)

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
S.1, S.2 S.4, S.6, S.7, S.8, S.9	Opacity	10%	Method 22 and Method 9	40 CFR 60 Subpart F and As Required by DEQ and Section III.A.1	Semi-Annual
S.3, S.5, S.8, S.9	Emission Control Equipment	Operation and maintenance of baghouse	Operation and maintenance of baghouse	Maintenance Log	Semi-Annual

Conditions

S.1. Ash Grove shall comply with all applicable standards, limitations, and the reporting, record keeping, and notification requirements of 40 CFR 60, Subpart F (Standards of Performance for Portland Cement Plants) which include, but are not limited to the following (ARM 17.8.340 and 40 CFR 60, Subpart F):

a. Ash Grove shall not cause or authorize emissions to be discharged into the outdoor atmosphere from the DCL loadout spout's baghouse for truck loading from belt conveyor (BC-0)'s that exhibit an opacity of 10% or greater averaged over six consecutive minutes.

Compliance Demonstration

S.2. Ash Grove shall maintain compliance with the applicable monitoring requirements of 40 CFR 60, Subpart F. 40 CFR 60, Subpart F currently indicates at §60.64(b)(3) that an affected source subject to the 10% opacity limit must follow the appropriate monitoring procedures in §63.1350(f) which include (ARM 17.8.340 and 40 CFR 60 Subpart F):

a. Conduct a monthly 10-minute visible emissions performance test using Method 22. The performance test must be conducted while the affected source is in operation.

b. If no visible emissions are observed in six consecutive monthly tests, the frequency of performance testing may decrease from monthly to semi-annually. If visible emissions are observed during any semi-annual test, resume performance testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

c. If no visible emissions are observed during the semi-annual tests, the frequency of performance testing may decrease from semi-annually to annually. If visible emissions are observed during any annual performance test, resume performance testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

d. If visible emissions are observed during any Method 22 performance test, conduct 30 minutes of opacity observations, recorded at 15-second intervals, in accordance with Method 9. The Method 9 performance test must begin within 1 hour of any observation of visible emissions.

e. If visible emissions are observed during any Method 22 visible emissions test, Ash Grove must initiate, within one-hour, the corrective actions specified in the operation and maintenance plan in accordance with Appendix E.

S.3. Ash Grove shall continuously operate, inspect, and maintain the baghouse in accordance with Appendix E of this permit to monitor compliance with Section III.S.2 (ARM 17.8.1213).

Recordkeeping

S.4. Ash Grove shall maintain compliance with the applicable recordkeeping requirements of 40 CFR 60, Subpart F (ARM 17.8.340 and 40 CFR 60, Subpart F).

S.5. Ash Grove shall maintain, on site, records of all observations, inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to DEQ for inspection and must be submitted to DEQ upon request (ARM 17.8.1212).

Reporting

S.6. Ash Grove shall maintain compliance with the applicable reporting requirements of 40 CFR 60, Subpart F (ARM 17.8.340 and 40 CFR 60, Subpart F).

S.7. Any compliance source test reports must be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).

S.8. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

S.9. The semiannual monitoring report shall provide (ARM 17.8.1212):

a. A summary of results of any source testing that was performed during the semiannual period;

b. A summary of the date, times, and corrective actions associated with any monitoring that showed visible emissions; and

c. A summary of any instance that the baghouse was not operated and maintained as required by Section III.S.2.

T. EU019 – Secondary Crusher (SC)

Condition(s)	Pollutant/ Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
T.1, T.3, T.5, T.6, T.7, T.8, T.9	40 CFR 60, Subpart OOO	40 CFR 60, Subpart OOO	40 CFR 60, Subpart OOO	40 CFR 60, Subpart OOO	40 CFR 60, Subpart OOO
T.2, T.4, T.6, T.5, T.8, T.9	Emissions Control Equipment	Operation and maintenance of baghouse	Operation and maintenance of baghouse in accordance with Appendix E	Maintenance Log	Semiannual

Conditions

T.1. Ash Grove shall comply with all applicable standards, limitations, and the reporting, recordkeeping, and notification requirements of 40 CFR 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

T.2. Ash Grove shall continuously operate and maintain emission control equipment when process equipment is operating (ARM 17.8.749).

Compliance Demonstration

T.3. Ash Grove shall comply with all applicable monitoring and compliance demonstration requirements of 40 CFR 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

T.4. Ash Grove shall inspect and maintain the baghouse in accordance with Appendix E of this permit to monitor compliance with Section III.T.2 (ARM 17.8.1213).

Recordkeeping

T.5. Ash Grove shall comply with all applicable recordkeeping requirements of 40 CFR 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

T.6. Ash Grove shall maintain records of all inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to DEQ for inspection and must be submitted to DEQ upon request (ARM 17.8.1212).

Reporting

T.7. Ash Grove shall comply with all applicable reporting and notification requirements of 40 CFR 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

T.8. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

T.9. The semiannual reporting shall provide a summary of results of any source testing that was performed during that semiannual period (ARM 17.8.1212).

U. EU018 – Product Loadout 2 (PLO2)

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method	Compliance Demonstration Frequency	Reporting Requirements
U.1, U.2 U.4, U.6, U.7, U.8, U.9	Opacity	10%	Method 22 and Method 9	40 CFR 60 Subpart F and As Required by DEQ and Section III.A.1	Semi-Annual
U.3, U.5, U.8, U.9	Emission Control Equipment	Operation and maintenance of baghouse	Operation and maintenance of baghouse	Maintenance Log	Semi-Annual

Conditions

U.1. Ash Grove shall comply with all applicable standards, limitations, and the reporting, record keeping, and notification requirements of 40 CFR 60, Subpart F (Standards of Performance for Portland Cement Plants) which include, but are not limited to the following (ARM 17.8.340 and 40 CFR 60, Subpart F):

a. Ash Grove shall not cause or authorize emissions to be discharged into the outdoor atmosphere from the DCL loadout spout's baghouse for truck loading from belt conveyor (BC-0)'s that exhibit an opacity of 10% or greater averaged over six consecutive minutes.

Compliance Demonstration

U.2. Ash Grove shall maintain compliance with the applicable monitoring requirements of 40 CFR 60, Subpart F. 40 CFR 60, Subpart F currently indicates at §60.64(b)(3) that an affected source subject to the 10% opacity limit must follow the appropriate monitoring procedures in §63.1350(f) which include (ARM 17.8.340 and 40 CFR 60 Subpart F):

a. Conduct a monthly 10-minute visible emissions performance test using Method 22. The performance test must be conducted while the affected source is in operation.

b. If no visible emissions are observed in six consecutive monthly tests, the frequency of performance testing may decrease from monthly to semi-annually. If visible emissions are observed during any semi-annual test, resume performance testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

c. If no visible emissions are observed during the semi-annual tests, the frequency of performance testing may decrease from semi-annually to annually. If visible emissions are observed during any annual performance test, resume performance testing on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

d. If visible emissions are observed during any Method 22 performance test, conduct 30 minutes of opacity observations, recorded at 15-second intervals, in accordance with Method 9. The Method 9 performance test must begin within 1 hour of any observation of visible emissions.

e. If visible emissions are observed during any Method 22 visible emissions test, Ash Grove must initiate, within one-hour, the corrective actions specified in the operation and maintenance plan in accordance with Appendix E.

U.3. Ash Grove shall continuously operate, inspect, and maintain the baghouse in accordance with Appendix E of this permit to monitor compliance with Section III.U.2 (ARM 17.8.1213).

Recordkeeping

U.4. Ash Grove shall maintain compliance with the applicable recordkeeping requirements of 40 CFR 60, Subpart F (ARM 17.8.340 and 40 CFR 60, Subpart F).

U.5. Ash Grove shall maintain, on site, records of all observations, inspection and maintenance activities performed on the baghouse in accordance with the requirements in Appendix E of this permit. All inspection and maintenance records must be available to DEQ for inspection and must be submitted to DEQ upon request (ARM 17.8.1212).

Reporting

U.6. Ash Grove shall maintain compliance with the applicable reporting requirements of 40 CFR 60, Subpart F (ARM 17.8.340 and 40 CFR 60, Subpart F).

U.7. Any compliance source test reports must be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).

U.8. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

U.9. The semiannual monitoring report shall provide (ARM 17.8.1212):

d. A summary of results of any source testing that was performed during the semiannual period;

e. A summary of the date, times, and corrective actions associated with any monitoring that showed visible emissions; and

f. A summary of any instance that the baghouse was not operated and maintained as required by Section III.U.2.

SECTION IV. NON-APPLICABLE REQUIREMENTS

Air Quality Administrative Rules of Montana (ARM) and Federal Regulations identified as not applicable to the facility or to a specific emissions unit at the time of the permit issuance are listed below (ARM 17.8.1214). The following list does not preclude the need to comply with any new requirements that may become applicable during the permit term.

A. Facility-Wide

The following table contains non-applicable requirements that are administrated by the Air Quality Bureau of the Department of Environmental Quality.

Rule Citation	Reason
ARM 17.8.320 ARM 17.8.321 ARM 17.8.323 ARM 17.8.331 through 333 ARM 17.8.1601 *et seq.* ARM 17.8.1701 *et seq.* ARM 17.8.1801 *et seq.*	These rules are not applicable because the facility is not listed in the source category cited in the rule.
ARM 17.8.1106 to 1107 ARM 17.8.1110 to 1111	These rules do not apply because no changes have been made at the facility that would trigger these procedural requirements.
40 CFR 60, Subparts C, Ca, Cb, Cc, Cd, Ce, Cf 40 CFR 60, Subparts D, Da, Db, Dc 40 CFR 60, Subparts E, Ea, Eb, Ec 40 CFR 60, Subparts G, H, I, J, Ja 40 CFR 60, Subparts K, Ka, Kb 40 CFR 60, Subparts L-X 40 CFR 60, Subpart Z 40 CFR 60, Subparts AA-EE 40 CFR 60, Subparts GG-HH 40 CFR 60, Subparts KK-NN 40 CFR 60, Subparts PP-XX 40 CFR 60, Subparts AAA-BBB 40 CFR 60, Subpart DDD 40 CFR 60, Subparts FFF-LLL 40 CFR 60, Subpart NNN 40 CFR 60, Subparts PPP-XXX 40 CFR 60, Subparts AAAA-FFFF 40 CFR 60, Subparts IIII-MMMM 40 CFR 60, Subparts OOOO, OOOOa 40 CFR 60, Subparts QQQQ, TTTT 40 CFR 60, Subpart UUUUa 40 CFR 60, Appendix G, I 40 CFR 61, Subparts B-F	These requirements are not applicable because the facility is not an affected source as defined in these regulations.

40 CFR 61, Subparts H-L 40 CFR 61, Subparts N-R 40 CFR 61, Subpart T 40 CFR 61, Subparts V-W 40 CFR 61, Subpart Y 40 CFR 61, Subpart BB 40 CFR 61, Subpart FF 40 CFR 63, Subparts F-J 40 CFR 63, Subparts L-O 40 CFR 63, Subparts Q-U 40 CFR 63, Subparts W-Y 40 CFR 63, Subparts AA-EE 40 CFR 63, Subparts GG- YY 40 CFR 63, Subparts CCC-EEE 40 CFR 63, Subparts GGG-JJJ 40 CFR 63, Subparts MMM-RRR 40 CFR 63, Subparts TTT-VVV 40 CFR 63, Subpart XXX 40 CFR 63, Subpart AAAA 40 CFR 63, Subparts CCCC-KKKK 40 CFR 63, Subparts MMMM-YYYY 40 CFR 63, Subparts AAAAA-NNNNN 40 CFR 63, Subparts PPPPP-UUUUU 40 CFR 63, Subpart WWWWW 40 CFT 63, Subparts YYYYY-ZZZZZ 40 CFR 63, Subpart BBBBBB 40 CFR 63, Subparts DDDDDD-HHHHHH, 40 CFR 63, Subpart JJJJJJ 40 CFR 63, Subparts LLLLLL-TTTTTT 40 CFR 63, Subparts VVVVVV-ZZZZZZ 40 CFR 63, Subparts AAAAAAA-EEEEEEE 40 CFR 63, Subpart HHHHHHH 40 CFR 63, Appendices B-E 40 CFR 68 40 CFR 72-78 40 CFR 85-97 (83 and 84 are reserved)	

B. Emission Units

The permit application identified applicable requirements: non-applicable requirements for individual or specific emission units were not listed. DEQ has listed all non-applicable requirements in Section IV.A, these requirements relate to each specific unit, as well as facility wide.

C. Streamlining Provisions

As requested in the Title V permit application, DEQ has determined that pursuant to ARM 17.8.1212, that several permit conditions were able to be streamlined as described in the March 5, 1996, EPA Memorandum titled, "White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program". Similar permit conditions as required by 40 CFR 63, Subpart LLL (Portland Cement MACT), the Ash Grove Consent Decree (Consent Decree in United States v. Ash Grove Cement Co., Case No. 2:13-cv-02299-JTM-DJW, doc. 27 (D. Kan. 8/14/13), as amended by doc. 28 on 10/16/15) and the Regional Haze Federal Implementation Plan provisions were simplified by taking the most stringent condition and including only that permit condition within the permit. The conditions which have been "subsumed" are described below.

Streamlined Rule Citation	Subsumed Rule	Reason
Consent Decree 57 and ARM 17.8.749; Ash Grove shall install and operate baghouse control technology on the kiln exhaust and may not exceed a filterable PM emission rate of 0.07 lb/ton of clinker based on a 30-day rolling average from the kiln during startup, shutdown, malfunction and normal operation.	Until September 9, 2015 (effective date of 40 CFR 63 Subpart LLL), Ash Grove shall not cause or authorize to be discharged into the atmosphere from the cement kiln any stack emissions which contain particulate matter in excess of the amount allowed by the following equations (in III.G.2.(a) and (b)). This emission limitation shall apply at all times, including startups, shutdowns, emergencies and malfunctions (ARM 17.8.310, ARM 17.8.752, and 40 CFR Part 52.1396): a. If the process weight rate of the kiln is less than or equal to 30 tons per hour, then the emission limit shall be calculated using E=4.10p0.67 where E = rate of emission in pounds per hour and p = process weight rate in tons per hour. b. If the process weight rate of the kiln is greater than 30 tons per hour, then the emission limit shall be calculated using E = 55.0p0.11- 40, where E = rate of emission in pounds per hour and P = process weight rate in tons per hour.	Consent Decree is more stringent than the process weight rule.
Same as above	Ash Grove may not exceed a PM emission rate of 0.07 lb/ton of clinker produced from the kiln stack excluding startup and shutdown periods based on an annual Method 5 stack performance test and a PM continuous parametric monitoring system (PM CPMS). Condensable particulate matter is not included in	Consent Decree is more stringent than 40 CFR Part 52.1396.

Streamlined Rule Citation	Subsumed Rule	Reason
	Method 5 reporting and is not included in determining compliance. For all reporting under 40 CFR 63 Subpart LLL, Startup means the period starting when a shutdown kiln first begins firing fuel and ending when it begins producing clinker. Startup "begins" when a shutdown kiln turns on the induced draft fan and begins firing fuel in the main burner. Startup "ends" when feed is being continuously introduced into the kiln for at least 120 minutes or when the feed rate exceeds 60 percent of the kiln design limitation rate, whichever occurs first (40 CFR 63 Subpart LLL, ARM 17.8.342 and ARM 17.8.749).	
Consent Decree 47 and ARM 17.8.749: By September 10, 2014, Ash Grove shall install and operate Semi-Dry Scrubbing control technology on the kiln stack and shall demonstrate compliance with an SO_2 emission limit of 2.0 lb/ton of clinker based on a 30-day rolling average including, startup, shutdown, and malfunction periods by the 210th operating day after September 10, 2014, (Consent Decree 47and ARM 17.8.749).	Ash Grove shall apply a sulfur dioxide control process (the kiln) to remove the sulfur dioxide from the gases emitted by burning of fuel of any sulfur content which results in an emission of sulfur in pounds per hour not in excess of the pounds per hour of sulfur that would have been emitted by burning fuel of the sulfur content indicated without such a cleaning device (ARM 17.8.322).	Consent Decree is the most stringent condition. Compliance with the Consent Decree limit assures compliance with this limit as well.
Same as above.	Ash Grove may not exceed a sulfur dioxide (SO2) emission rate of 11.5 lb/ton of clinker no later than April 17, 2013 (180 days following October 18, 2012). Ash Grove shall limit SO_2 emissions from the kiln during startup, shutdown, malfunction, emergencies, and normal operation to 11.5 lb/ton of clinker produced based on a 30-day rolling average. An SO_2 Continuous Emission Monitoring system (CEMS) shall be maintained, calibrated, and operated at all times to demonstrate compliance with the emission limit and shall satisfy CEMS requirements under 40 CFR 52. (Regional Haze FIP 40 CFR 52.1396 and ARM 17.8.749).	Consent Decree is the most stringent condition. Compliance with the Consent Decree limit assures compliance with this limit as well.
Consent Decree 27 and ARM 17.8.749. Ash Grove shall install	Ash Grove may not exceed a NOx emissions rate of 7.5 lb/ton of	Consent Decree is the most stringent condition.

Streamlined Rule Citation	Subsumed Rule	Reason
and operate by September 10, 2014, selective non-catalytic reduction (SNCR) control technology, and demonstrate compliance with the 7.5 lb/ton of clinker based on a 30-day rolling average including startup, shutdown, and malfunction periods, beginning by the 30th operating day after 9/10/2014	clinker no later than October 18, 2017. Ash Grove shall limit NOx emissions from the kiln during startup, shutdown, malfunction, emergencies, and normal operation to 7.5 lb/ton of clinker produced based on a 30-day rolling average. Commencing on October 18, 2017, Ash Grove shall maintain, calibrate, and operate a NOx CEMS at all times to demonstrate compliance with the emission limit and shall satisfy CEMS requirements under 40 CFR 52 (Regional Haze FIP 40 CFR 52.1396 and ARM 17.8.749).	Compliance with the Consent Decree limit assures compliance with this limit as well.
Ash Grove shall install, operate, and maintain a PM CPMS on the kiln and establish a Site-Specific Operating Limit (SSOL) for PM in accordance with the requirements of Appendix B of the Consent Decree and 40 CFR 63.1350(b) and (d). Ash Grove shall conduct the performance test using EPA Method 5 or Method 5I of Appendix A-3 of 40 CFR Part 60. The test methods shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual with the following exceptions: If demonstrating compliance with 40 CFR Part 52.1396, the test shall consist of three runs, with each run at least 120 minutes in duration and each run collecting a minimum sample of 60 dry standard cubic feet, per 40 CFR Part 52.1396. Condensable particulate matter is not included in Method 5 reporting and is not included in determining compliance. The compliance demonstration shall be an initial test and within 365 operating days thereafter. Ash Grove may employ the SSOL methodology in 40 CFR 3.1349(b) in lieu of this methodology (Consent Decree 56, 59, 60, and ARM 17.8.749).	Within 60 days of the compliance deadline and at least once per calendar year thereafter, Ash Grove shall perform a Method 5 stack test to monitor compliance with the particulate matter limit in Section III.G.2. The test methods shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual with the following exceptions: the test shall consist of three runs, with each run at least 120 minutes in duration and each run collecting a minimum sample of 60 dry standard cubic feet. The average of the results of three test runs shall be used by the owner/operator for demonstrating compliance (ARM 17.8.106, ARM 17.8.1213, and 40 CFR Part 52.1396).	Consent Decree requirement contains the most stringent monitoring condition. Compliance with the Consent Decree assures compliance with the subsumed condition. The Regional Haze requirement contains specific run times and volumes, while the PC MACT requirement specifies that that no condensable PM emissions are included in the Method 5 tests or in determining compliance. These two conditions have been included in the modified permit condition.

Streamlined Rule Citation	Subsumed Rule	Reason
Ash Grove shall install and operate a NOx CEMS and SO_2 CEMS at each stack from which the kiln directly discharges emissions. The CEMS shall be operated at all times during kiln operation except during CEMS breakdowns, repairs, calibration checks and zero and span adjustments (Consent Decree 32, 34, 51, 52, and ARM 17.8.749).	Ash Grove shall, at all times after April 17, 2013 (180 days following October 18, 2012), maintain, calibrate, and operate a continuous emissions monitoring system (CEMS) in full compliance with the requirements found at 40 CFR 60.63 (f) and (g) to accurately measure and record concentration by volume of SO_2 and NOx emissions into the atmosphere. If installation of additional emission controls is necessary to comply with the SO_2 and NOx emissions limitations under this rule, compliance is extended to October 18, 2017 (within five years of the effective date of this rule) in accordance with 40 CFR Part 52.1396. The CEMS shall be used in combination with data on actual clinker production to monitor compliance with the limits in Section III.G.2 and III.G.3 (40 CFR Part 52.1396).	The Consent Decree requirements contains the most stringent NOx and SO_2 monitoring condition, Compliance with the Consent Decree condition assures compliance with the subsumed conditions.

SECTION V. GENERAL PERMIT CONDITIONS

A. Compliance Requirements

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(a)-(c)&(e), §1206(6)(c)&(b)

1. The permittee must comply with all conditions of the permit. Any noncompliance with the terms or conditions of the permit constitutes a violation of the Montana Clean Air Act, and may result in enforcement action, permit modification, revocation and reissuance, or termination, or denial of a permit renewal application under ARM Title 17, Chapter 8, Subchapter 12.

2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. If appropriate, this factor may be considered as a mitigating factor in assessing a penalty for noncompliance with an applicable requirement if the source demonstrates that both the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations, and that such health, safety, or environmental impacts were unforeseeable and could not have otherwise been avoided.

4. The permittee shall furnish to DEQ, within a reasonable time set by DEQ (not to be less than 15 days), any information that DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to DEQ copies of those records that are required to be kept pursuant to the terms of the permit. This subsection does not impair or otherwise limit the right of the permittee to assert the confidentiality of the information requested by DEQ, as provided in 75-2-105, MCA.

5. Any schedule of compliance for applicable requirements with which the source is not in compliance with at the time of permit issuance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it was based.

6. For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis unless a more detailed plan or schedule is required by the applicable requirement or DEQ.

B. Certification Requirements

ARM 17.8, Subchapter 12, Operating Permit Program §1207 and §1213(7)(a)&(c)-(d)

1. Any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12, shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

2. Compliance certifications shall be submitted by February 15 of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. Each certification must include the required information for the previous calendar year (i.e., January 1 – December 31).

3. Compliance certifications shall include the following:

   a. The identification of each term or condition of the permit that is the basis of the certification

   b. The identification of the method(s) or other means used by the owner or operator for determining the status of compliance with each term and condition during the certification period, consistent with ARM 17.8.1212

   c. The status of compliance with each term and condition for the period covered by the certification, *including whether compliance during the period was continuous or intermittent* (based on the method or means identified in ARM 17.8.1213(7)(c)(ii), as described above)

   d. Such other facts as DEQ may require to determine the compliance status of the source

4. All compliance certifications must be submitted to the Environmental Protection Agency, as well as to DEQ, at the addresses listed in the Notification Addresses Appendix C of this permit.

C. Permit Shield

ARM 17.8, Subchapter 12, Operating Permit Program §1214(1)-(4)

1. The applicable requirements and non-federally enforceable requirements are included and specifically identified in this permit and the permit includes a precise summary of the requirements not applicable to the source. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements and any non-federally enforceable requirements as of the date of permit issuance.

2. The permit shield described in 1 above shall remain in effect during the appeal of any permit action (renewal, revision, reopening, or revocation and reissuance) to the Board of Environmental Review (Board), until such time as the Board renders its final decision.

3. Nothing in this permit alters or affects the following:

   a. The provisions of Sec. 7603 of the FCAA, including the authority of the administrator under that section

   b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance

   c. The applicable requirements of the Acid Rain Program, consistent with Sec. 7651g(a) of the FCAA

d. The ability of the administrator to obtain information from a source pursuant to Sec. 7414 of the FCAA

e. The ability of DEQ to obtain information from a source pursuant to the Montana Clean Air Act, Title 75, Chapter 2, MCA

f. The emergency powers of DEQ under the Montana Clean Air Act, Title 75, Chapter 2, MCA

g. The ability of DEQ to establish or revise requirements for the use of Reasonably Available Control Technology (RACT) as defined in ARM Title 17, Chapter 8. However, if the inclusion of a RACT into the permit pursuant to ARM Title 17, Chapter 8, Subchapter 12, is appealed to the Board, the permit shield, as it applies to the source's existing permit, shall remain in effect until such time as the Board has rendered its final decision.

4. Nothing in this permit alters or affects the ability of DEQ to take enforcement action for a violation of an applicable requirement or permit term demonstrated pursuant to ARM 17.8.106, Source Testing Protocol.

5. Pursuant to ARM 17.8.132, for the purpose of submitting a compliance certification, nothing in these rules shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance. However, when compliance or noncompliance is demonstrated by a test or procedure provided by permit or other applicable requirements, the source shall then be presumed to be in compliance or noncompliance unless that presumption is overcome by other relevant credible evidence.

6. The permit shield will not extend to minor permit modifications or changes not requiring a permit revision (see Sections I & J).

7. The permit shield will extend to significant permit modifications and transfer or assignment of ownership (see Sections K & N).

D. Monitoring, Recordkeeping, and Reporting Requirements
ARM 17.8, Subchapter 12, Operating Permit Program §1212(2)&(3)

1. Unless otherwise provided in this permit, the permittee shall maintain compliance monitoring records that include the following information:

a. The date, place as defined in the permit, and time of sampling or measurement

b. The date(s) analyses were performed

c. The company or entity that performed the analyses

d. The analytical techniques or methods used

e. The results of such analyses

f. The operating conditions at the time of sampling or measurement

2. The permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. All monitoring data, support information, and required reports and summaries may be maintained in computerized form at the plant site if the information is made available to DEQ personnel upon request, which may be for either hard copies or computerized format. Strip-charts must be maintained in their original form at the plant site and shall be made available to DEQ personnel upon request.

3. The permittee shall submit to DEQ, at the addresses located in the Notification Addresses Appendix C of this permit, reports of any required monitoring by February 15 and August 15 of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. The monitoring report submitted on February 15 of each year must include the required monitoring information for the period of July 1 through December 31 of the previous year. The monitoring report submitted on August 15 of each year must include the required monitoring information for the period of January 1 through June 30 of the current year. All instances of deviations from the permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official, consistent with ARM 17.8.1207.

E. Prompt Deviation Reporting

ARM 17.8, Subchapter 12, Operating Permit Program §1212(3)(b)

The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. To be considered prompt, deviations shall be reported to DEQ within the following timeframes (unless otherwise specified in an applicable requirement):

1. For deviations which may result in emissions potentially in violation of permit limitations:

    a. An initial phone notification (or faxed or electronic notification) describing the incident within 24 hours (or the next business day) of discovery: and,

    b. A follow-up written, faxed, or electronic report within 30 days of discovery of the deviation that describes the probable cause of the reported deviation and any corrective actions or preventative measures taken.

2. For deviations attributable to malfunctions, deviations shall be reported to DEQ in accordance with the malfunction reporting requirements under ARM 17.8.110; and

3. For all other deviations, deviations shall be reported to DEQ via a written, faxed, or electronic report within 90 days of discovery (as determined through routine internal review by the permittee).

Prompt deviation reports do not need to be resubmitted with regular semiannual (or other routine) reports but may be referenced by the date of submittal.

F. Emergency Provisions

The Environmental Protection Agency (EPA) has removed the "emergency" affirmative defense provisions from the Clean Air Act's (CAA) title V operating permit program regulations. These provisions established an affirmative defense that sources could have asserted in enforcement cases brought for noncompliance with technology-based emission limitations in operating permits, provided that the exceedances occurred due to qualifying emergency circumstances. These provisions, which have never been required elements of state operating permit programs, are being removed because they are inconsistent with the EPA's interpretation of the enforcement structure of the CAA. Each state which has emergency provisions within their title V operating permit programs will need to remove the language and provisions in title V operating permits at their next renewal or during normal permit revisions. The emergency provisions formerly located in this section are no longer applicable to this Title V operating permit.

Montana DEQ will be removing the following language from its Operating Permit Program but effectively immediately the following provisions are no longer valid due to EPA's removal of the emergency provisions.

ARM 17.8.1214 (Numbered Items 5 thru 8)

(5) An emergency constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the conditions of (6) and (7) are met.

(6) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(a) an emergency occurred, and that the permittee can identify the cause(s) of the emergency;

(b) the permitted facility was at the time being properly operated;

(c) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(d) the permittee submitted notice of the emergency to the department within two working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirements of ARM 17.8.1212(3) (c). This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(7) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

(8) The provisions in (5) through (7) are in addition to any emergency, malfunction or upset provision contained in any applicable requirement.

G. Inspection and Entry

ARM 17.8, Subchapter 12, Operating Permit Program §1213(3)&(4)

1. Upon presentation of credentials and other requirements as may be required by law, the permittee shall allow DEQ, the administrator, or an authorized representative (including an authorized contractor acting as a representative of DEQ or the administrator) to perform the following:

a. Enter the premises where a source required to obtain a permit is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit

c. Inspect at reasonable times any facilities, emission units, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit

d. As authorized by the Montana Clean Air Act and rules promulgated thereunder, sample or monitor, at reasonable times, any substances, or parameters at any location for the purpose of assuring compliance with the permit or applicable requirements

2. The permittee shall inform the inspector of all workplace safety rules or requirements at the time of inspection. This section shall not limit in any manner DEQ's statutory right of entry and inspection as provided for in 75-2-403, MCA.

H. Fee Payment

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(f) and ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation, and Open Burning Fees §505(3)-(5) (STATE ONLY)

1. The permittee must pay application and operating fees, pursuant to ARM Title 17, Chapter 8, Subchapter 5.

2. Annually, DEQ shall provide the permittee with written notice of the amount of the fee and the basis for the fee assessment. The air quality operation fee is due 30 days after receipt of the notice unless the fee assessment is appealed pursuant to ARM 17.8.511. If any portion of the fee is not appealed, that portion of the fee that is not appealed is due 30 days after receipt of the notice. Any remaining fee, which may be due after the completion of an appeal, is due immediately upon issuance of the Board's decision or upon completion of any judicial review of the Board's decision.

3. If the permittee fails to pay the required fee (or any required portion of an appealed fee) within 90 days of the due date of the fee, DEQ may impose an additional assessment of 15% of the fee (or any required portion of an appealed fee) or $100, whichever is greater, plus interest on the fee (or any required portion of an appealed fee), computed at the interest rate established under 15-31-510(3), MCA.

I. Minor Permit Modifications

ARM 17.8, Subchapter 12, Operating Permit Program §1226(3)&(11)

1. An application for a minor permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation, or deletion, and may reference any required information that has been previously submitted.

2. The permit shield under ARM 17.8.1214 will not extend to any minor modifications processed pursuant to ARM 17.8.1226.

J. Changes Not Requiring Permit Revision

ARM 17.8, Subchapter 12, Operating Permit Program §1224(1)-(3), (5)&(6)

1. The permittee is authorized to make changes within the facility as described below, provided the following conditions are met:

   a. The proposed changes do not require the permittee to obtain an air quality preconstruction permit under ARM Title 17, Chapter 8, Subchapter 7;

   b. The proposed changes are not modifications under Title I of the FCAA, or as defined in ARM Title 17, Chapter 8, Subchapters 8, 9, or 10;

   c. The emissions resulting from the proposed changes do not exceed the emissions allowable under this permit, whether expressed as a rate of emissions or in total emissions;

   d. The proposed changes do not alter permit terms that are necessary to enforce applicable emission limitations on emission units covered by the permit; and

   e. The facility provides the administrator and DEQ with written notification at least seven days prior to making the proposed changes.

2. The permittee and DEQ shall attach each notice provided pursuant to 1.e above to their respective copies of this permit.

3. Pursuant to the conditions above, the permittee is authorized to make Sec. 502(b)(10) changes, as defined in ARM 17.8.1201(30), without a permit revision. For each such change, the written notification required under 1.e above shall include a description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

4. The permittee may make a change not specifically addressed or prohibited by the permit terms and conditions without requiring a permit revision, provided the following conditions are met:

   a. Each proposed change does not weaken the enforceability of any existing permit conditions;

   b. DEQ has not objected to such change;

   c. Each proposed change meets all applicable requirements and does not violate any existing permit term or condition; and

   d. The permittee provides contemporaneous written notice to DEQ and the administrator of each change that is above the level for insignificant emission units as defined in ARM 17.8.1201(22) and 17.8.1206(3), and the written notice

describes each such change, including the date of the change, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

5. The permit shield authorized by ARM 17.8.1214 shall not apply to changes made pursuant to ARM 17.8.1224(3) and (5) but is applicable to terms and conditions that allow for increases and decreases in emissions pursuant to ARM 17.8.1224(4).

K. Significant Permit Modifications

ARM 17.8, Subchapter 12, Operating Permit Program §1227(1), (3)&(4)

1. The modification procedures set forth in 2 below must be used for any application requesting a significant modification of this permit. Significant modifications include the following:

   a. Any permit modification that does not qualify as either a minor modification or as an administrative permit amendment

   b. Every significant change in existing permit monitoring terms or conditions

   c. Every relaxation of permit reporting or recordkeeping terms or conditions that limit DEQ's ability to determine compliance with any applicable rule, consistent with the requirements of the rule or

   d. Any other change determined by DEQ to be significant

2. Significant modifications shall meet all requirements of ARM Title 17, Chapter 8, including those for applications, public participation, and review by affected states and the administrator, as they apply to permit issuance and renewal, except that an application for a significant permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation or deletion.

3. The permit shield provided for in ARM 17.8.1214 shall extend to significant modifications.

L. Reopening for Cause

ARM 17.8, Subchapter 12, Operating Permit Program §1228(1)&(2)

This permit may be reopened and revised under the following circumstances:

1. Additional applicable requirements under the FCAA become applicable to the facility when the permit has a remaining term of 3 or more years. Reopening and revision of the permit shall be completed no later than 18 months after promulgation of the applicable requirement. No reopening is required under ARM 17.8.1228(1)(a) if the effective date of the applicable requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms or conditions have been extended pursuant to ARM 17.8.1220(12) or 17.8.1221(2);

2. Additional requirements (including excess emission requirements) become applicable to an affected source under the Acid Rain Program. Upon approval by the administrator, excess emission offset plans shall be deemed incorporated into the permit;

3. DEQ or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit; or

4. The administrator or DEQ determines that the permit must be revised or revoked and reissued to ensure compliance with the applicable requirements.

M. Permit Expiration and Renewal

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(g), §1220(11)&(12), and §1205(2)(d)

1. This permit is issued for a fixed term of five years.

2. Renewal of this permit is subject to the same procedural requirements that apply to permit issuance, including those for application, content, public participation, and affected state and administrator review.

3. Expiration of this permit terminates the permittee's right to operate unless a timely and administratively complete renewal application has been submitted consistent with ARM 17.8.1221 and 17.8.1205(2)(d). If a timely and administratively complete application has been submitted, all terms and conditions of the permit, including the application shield, remain in effect after the permit expires until the permit renewal has been issued or denied.

4. For renewal, the permittee shall submit a complete air quality operating permit application to DEQ not later than six months prior to the expiration of this permit, unless otherwise specified. If necessary to ensure that the terms of the existing permit will not lapse before renewal, DEQ may specify, in writing to the permittee, a longer time period for submission of the renewal application. Such written notification must be provided at least 1 year before the renewal application due date established in the existing permit.

N. Severability Clause

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(i)&(l)

1. The administrative appeal or subsequent judicial review of the issuance by DEQ of an initial permit under this subchapter shall not impair in any manner the underlying applicability of all applicable requirements, and such requirements continue to apply as if a final permit decision had not been reached by DEQ.

2. If any provision of a permit is found to be invalid, all valid parts that are severable from the invalid part remain in effect. If a provision of a permit is invalid in one or more of its applications, the provision remains in effect in all valid applications that are severable from the invalid applications.

O. Transfer or Assignment of Ownership
ARM 17.8, Subchapter 12, Operating Permit Program §1225(2)&(4)

1. If an administrative permit amendment involves a change in ownership or operational control, the applicant must include in its request to DEQ a written agreement containing a specific date for the transfer of permit responsibility, coverage, and liability between the current and new permittee.

2. The permit shield provided for in ARM17.8.1214 shall not extend to administrative permit amendments.

P. Emissions Trading, Marketable Permits, Economic Incentives
ARM 17.8, Subchapter 12, Operating Permit Program §1226(2)

Notwithstanding ARM 17.8.1226(1) and (7), minor air quality operating permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in the Montana State Implementation Plan or in applicable requirements promulgated by the administrator.

Q. No Property Rights Conveyed
ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(d)

This permit does not convey any property rights of any sort, or any exclusive privilege.

R. Testing Requirements
ARM 17.8, Subchapter 1, General Provisions §105

The permittee shall comply with ARM 17.8.105.

S. Source Testing Protocol
ARM 17.8, Subchapter 1, General Provisions §106

The permittee shall comply with ARM 17.8.106.

T. Malfunctions
ARM 17.8, Subchapter 1, General Provisions §110

The permittee shall comply with ARM 17.8.110.

U. Circumvention
ARM 17.8, Subchapter 1, General Provisions §111

The permittee shall comply with ARM 17.8.111.

V. Motor Vehicles
ARM 17.8, Subchapter 3, Emission Standards §325

The permittee shall comply with ARM 17.8.325.

W. Annual Emissions Inventory

ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation and Open Burning Fees §505 (STATE ONLY)

The permittee shall supply DEQ with annual production and other information for all emission units necessary to calculate actual or estimated actual amount of air pollutants emitted during each calendar year. Information shall be gathered on a calendar-year basis and submitted to DEQ by the date required in the emission inventory request, unless otherwise specified in this permit. Information shall be in the units required by DEQ.

X. Open Burning

ARM 17.8, Subchapter 6, Open Burning §604, 605 and 606

The permittee shall comply with ARM 17.8.604, 605 and 606.

Y. Montana Air Quality Permits

ARM 17.8, Subchapter 7, Permit, Construction and Operation of Air Contaminant Sources §745 and 764 (

1. Except as specified, no person shall construct, install, alter, or use any air contaminant source or stack associated with any source without first obtaining a permit from DEQ or Board. A permit is not required for those sources or stacks as specified by ARM 17.8.744(1)(a)-(k).

2. The permittee shall comply with ARM 17.8.743, 744, 745, 748, and 764.

3. ARM 17.8.745(1) specifies de minimis changes as construction or changed conditions of operation at a facility holding an air quality preconstruction permit issued under Chapter 8 that does not increase the facility's potential to emit by more than 5 tons per year of any pollutant, except

    a. Any construction or changed condition that would violate any condition in the facility's existing air quality preconstruction permit, or any applicable rule contained in Chapter 8 is prohibited, except as provided in ARM 17.8.745(2);

    b. Any construction or changed conditions of operation that would qualify as a major modification under Subchapters 8, 9 or 10 of Chapter 8;

    c. Any construction or changed condition of operation that would affect the plume rise or dispersion characteristic of emissions that would cause or contribute to a violation of an ambient air quality standard or ambient air increment as defined in ARM 17.8.804;

    d. Any construction or improvement project with a potential to emit more than 5 tons per year may not be artificially split into smaller projects to avoid air quality preconstruction permitting; or

    e. Emission reductions obtained through offsetting within a facility are not included when determining the potential emission increase from construction or

changed conditions of operation unless such reductions are made federally enforceable.

4. Any facility making a de minimis change pursuant to ARM 17.8.745(1) shall notify DEQ if the change would include a change in control equipment, stack height, stack diameter, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change and must include the information requested in ARM 17.8.745(1).

Z. National Emission Standard for Asbestos
40 CFR, Part 61, Subpart M

The permittee shall not conduct any asbestos abatement activities except in accordance with 40 CFR 61, Subpart M (National Emission Standard for Hazardous Air Pollutants for Asbestos).

AA. Asbestos
ARM 17.74, Subchapter 3, General Provisions and Subchapter 4, Fees

The permittee shall comply with ARM 17.74.301, *et seq*., and ARM 17.74.401, *et seq*. (State only)

BB. Stratospheric Ozone Protection – Servicing of Motor Vehicle Air Conditioners
40 CFR, Part 82, Subpart B

If the permittee performs a service on motor vehicles and this service involves ozone-depleting substance/refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR 82, Subpart B.

CC. Stratospheric Ozone Protection – Recycling and Emission Reductions
40 CFR, Part 82, Subpart F

The permittee shall comply with the standards for recycling and emission reductions in 40 CFR 82, Subpart F, except as provided for MVACs in Subpart B:

1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156;

2. Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158;

3. Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technical certification program pursuant to §82.161;

4. Persons disposing of small appliances, MVACs and MVAC-like (as defined at §82.152) appliances must comply with recordkeeping requirements pursuant to §82.166;

5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156; and

6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

DD. Emergency Episode Plan

The permittee shall comply with the requirements contained in Chapter 9.7 of the State of Montana Air Quality Control Implementation Plan.

Each major source emitting 100 tons per year located in a Priority I Air Quality Control Region, shall submit to DEQ a legally enforceable Emergency Episode Action Plan (EEAP) that details how the source will curtail emissions during an air pollutant emergency episode. The industrial EEAP shall be in accordance with DEQ's EEAP and shall be submitted according to a timetable developed by DEQ, following Priority I reclassification.

EE. Definitions

Terms not otherwise defined in this permit or in the Definitions and Abbreviations Appendix B of this permit, shall have the meaning assigned to them in the referenced regulations.

APPENDICES

Appendix A. INSIGNIFICANT EMISSION UNITS

Disclaimer: The information in this appendix is not State or Federally enforceable, but is presented to assist Ash Grove, the permitting authority, inspectors, and the public.

Pursuant to ARM 17.8.1201(22)(a), an insignificant emission unit means any activity or emissions unit located within a source that: (i) has a potential to emit less than five tons per year of any regulated pollutant; (ii) has a potential to emit less than 500 pounds per year of lead; (iii) has a potential to emit less than 500 pounds per year of hazardous air pollutants listed pursuant to Sec. 7412 (b) of the FCAA; and (iv) is not regulated by an applicable requirement, other than a generally applicable requirement that applies to all emission units subject to Subchapter 12.

List of Insignificant Activities:

The following table of insignificant sources and/or activities was provided by Ash Grove. Because there are no requirements to update such a list, the emission units and/or activities may change from those specified in the table.

Emissions Unit ID		Description
IEU01	CCP	Coal/Coke Preparation
IEU02	CDA	Clinker Drag Conveyor A
IEU03	CDB	Clinker Drag Conveyor B
IEU04	CSA	Transfer to/from Cement Storage Silos A
IEU05	CSB	Transfer to/from Cement Storage Silos B
IEU07	DT	Dust Return System
IEU08	EC	Clinker Bucket Conveyor
IEU09	LS	Lime Silo
IEU11	PST	Petroleum Storage Tanks
IEU12	QA	Quarry Activities
IEU13	RT	Raw Material Transfer
IEU14	SC	Slag/Silica/Clinker Conveyors
IEU15	SLA	Storage Loadout A
IEU16	SLM	Specialty Bin
IEU17	SLN	Storage Loadout at New Silos
IEU18	TFS	Transfer from Silos
IEU19	TSC	Transfer/Secondary Crushing
IEU20	VE	Vehicle Emissions
IEU21	OFH	Used Oil Fired Heater

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Appendix B. DEFINITIONS and ABBREVIATIONS

"Act" means the Clean Air Act, as amended, 42 U.S. 7401, *et seq*.

"Administrative permit amendment" means an air quality operating permit revision that:

(a) Corrects typographical errors

(b) Identifies a change in the name, address or phone number of any person identified in the air quality operating permit, or identifies a similar minor administrative change at the source

(c) Requires more frequent monitoring or reporting by Ash Grove

(d) Requires changes in monitoring or reporting requirements that DEQ deems to be no less stringent than current monitoring or reporting requirements

(e) Allows for a change in ownership or operational control of a source if DEQ has determined that no other change in the air quality operating permit is necessary, consistent with ARM 17.8.1225 or

(f) Incorporates any other type of change that DEQ has determined to be similar to those revisions set forth in (a)-(e), above

"Applicable requirement" means all of the following as they apply to emission units in a source requiring an air quality operating permit (including requirements that have been promulgated or approved by DEQ or the administrator through rule making at the time of issuance of the air quality operating permit, but have future-effective compliance dates, provided that such requirements apply to sources covered under the operating permit):

(a) Any standard, rule, or other requirement, including any requirement contained in a consent decree or judicial or administrative order entered into or issued by DEQ, that is contained in the Montana state implementation plan approved or promulgated by the administrator through rule making under Title I of the FCAA

(b) Any federally enforceable term, condition or other requirement of any air quality preconstruction permit issued by DEQ under Subchapters 7, 8, 9 and 10 of this chapter, or pursuant to regulations approved or promulgated through rule making under Title I of the FCAA, including parts C and D

(c) Any standard or other requirement under Sec. 7411 of the FCAA, including Sec. 7411(d)

(d) Any standard or other requirement under Sec. 7412 of the FCAA, including any requirement concerning accident prevention under Sec. 7412(r)(7), but excluding the contents of any risk management plan required under Sec. 7412(r)

(e) Any standard or other requirement of the acid rain program under Title IV of the FCAA or regulations promulgated thereunder

(f) Any requirements established pursuant to Sec. 7661c(b) or Sec. 7414(a)(3) of the FCAA

(g) Any standard or other requirement governing solid waste incineration, under Sec. 7429 of the FCAA

(h) Any standard or other requirement for consumer and commercial products, under Sec. 7511b(e) of the FCAA

(i) Any standard or other requirement for tank vessels, under Sec. 7511b(f) of the FCAA

(j) Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the FCAA, unless the administrator determines that such requirements need not be contained in an air quality operating permit

(k) Any national ambient air quality standard or increment or visibility requirement under part C of Title I of the FCAA, but only as it would apply to temporary sources permitted pursuant to Sec. 7661c(e) of the FCAA or

(l) Any federally enforceable term or condition of any air quality open burning permit issued by DEQ under Subchapter 6

"DEQ" means the Montana Department of Environmental Quality.

"Excess Emissions" means any visible emissions from a stack or source, viewed during the visual surveys, that meets or exceeds 15% opacity (or 30% opacity if associated with a 40% opacity limit) during normal operating conditions.

"Emissions unit" means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant, or any pollutant listed under Sec. 7412(b) of the FCAA. This term is not meant to alter or affect the definition of the term "unit" for purposes of Title IV of the FCAA.

"FCAA" means the Federal Clean Air Act, as amended.

"Federally enforceable" means all limitations and conditions which are enforceable by the administrator, including those requirements developed pursuant to 40 CFR Parts 60 and 61, requirements within the Montana state implementation plan, and any permit requirement established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I, including operating permits issued under an EPA approved program that is incorporated into the Montana state implementation plan and expressly requires adherence to any permit issued under such program.

"Fugitive emissions" means those emissions that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

"General air quality operating permit" or **"general permit"** means an air quality operating permit that meets the requirements of ARM 17.8.1222, covers multiple sources in a source category, and is issued in lieu of individual permits being issued to each source.

"Hazardous air pollutant" means any air pollutant listed as a hazardous air pollutant pursuant to Sec. 112(b) of the FCAA.

"Non-federally enforceable requirement" means the following as they apply to emission units in a source requiring an air quality operating permit:

(a) Any standard, rule, or other requirement, including any requirement contained in a consent decree, or judicial or administrative order entered into or issued by DEQ, that is not contained in the Montana state implementation plan approved or promulgated by the administrator through rule making under Title I of the FCAA

(b) Any term, condition or other requirement contained in any air quality preconstruction permit issued by DEQ under Subchapters 7, 8, 9 and 10 of this chapter that is not federally enforceable

(c) Does not include any Montana ambient air quality standard contained in Subchapter 2 of this chapter

"Permittee" means the owner or operator of any source subject to the permitting requirements of this subchapter, as provided in ARM 17.8.1204, that holds a valid air quality operating permit or has submitted a timely and complete permit application for issuance, renewal, amendment, or modification pursuant to this subchapter.

"Regulated air pollutant" means the following:

(a) Nitrogen oxides or any volatile organic compounds

(b) Any pollutant for which a national ambient air quality standard has been promulgated

(c) Any pollutant that is subject to any standard promulgated under Sec. 7411 of the FCAA

(d) Any Class I or II substance subject to a standard promulgated under or established by Title VI of the FCAA or

(e) Any pollutant subject to a standard or other requirement established or promulgated under Sec. 7412 of the FCAA, including but not limited to the following:

(i) Any pollutant subject to requirements under Sec. 7412(j) of the FCAA. If the administrator fails to promulgate a standard by the date established in Sec. 7412(e) of the FCAA, any pollutant for which a subject source would be major shall be considered to be regulated on the date 18 months after the applicable date established in Sec. 7412(e) of the FCAA

(ii) Any pollutant for which the requirements of Sec. 7412(g)(2) of the FCAA have been met but only with respect to the individual source subject to Sec. 7412(g)(2) requirement

"Responsible official" means one of the following:

(a) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars) or

(ii) The delegation of authority to such representative is approved in advance by DEQ

(b) For a partnership or sole proprietorship: a general partner or the proprietor, respectively

(c) For a municipality, state, federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a regional administrator of the environmental protection agency).

(d) For affected sources: the designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the FCAA or the regulations promulgated thereunder are concerned, and the designated representative for any other purposes under this subchapter.

Abbreviations:

ARM	Administrative Rules of Montana
ASTM	American Society of Testing Materials
BACT	Best Available Control Technology
BDT	bone dry tons
BTU	British Thermal Unit
CFR	Code of Federal Regulations
CO	carbon monoxide
D/F	dioxins and furans
DEQ	Department of Environmental Quality
dscf	dry standard cubic foot
dscfm	dry standard cubic foot per minute
EEAP	Emergency Episode Action Plan
EPA	U.S. Environmental Protection Agency
EPA Method	Test methods contained in 40 CFR 60, Appendix A
EU	emissions unit
FCAA	Federal Clean Air Act
gr	grains
HAP	hazardous air pollutant
IEU	insignificant emissions unit
Mbdft	thousand board feet
MCA	Montana Code Annotated
Method 5	40 CFR 60, Appendix A, Method 5
Method 9	40 CFR 60, Appendix A, Method 9
MMbdft	million board feet
MMBTU	million British Thermal Units
MVAC	motor vehicle air conditioner
NOx	oxides of nitrogen
NO_2	nitrogen dioxide
O_2	oxygen
Pb	lead
PM	particulate matter
PM10	particulate matter less than 10 microns in size
psi	pounds per square inch
scf	standard cubic feet
SIC	Source Industrial Classification
SO_2	sulfur dioxide
SOx	oxides of sulfur
tpy	tons per year
U.S.C.	United States Code
VE	visible emissions
VOC	volatile organic compound

Appendix C. NOTIFICATION ADDRESSES

Compliance Notifications:

Montana Department of Environmental Quality
Air, Energy, & Mining Division
Air Quality Bureau
P.O. Box 200901
Helena, MT 59620-0901
DEQ-ARMB-Admin@mt.gov

Enforcement and Compliance Assurance Division
Air Enforcement Branch
US EPA Region VIII, Montana Office
10 West 15th Street, Suite 3200
Helena, MT 59626

Permit Modifications:

Montana Department of Environmental Quality
Air, Energy, & Mining Division
Air Quality Bureau
P.O. Box 200901
Helena, MT 59620-0901
DEQ-ARMB-Admin@mt.gov

Air and Radiation Program
Permit and Monitoring Branch
US EPA Region VIII 8P-AR
1595 Wynkoop Street
Denver, CO 80202-1129

Appendix D. AIR QUALITY INSPECTOR INFORMATION

Disclaimer: The information in this appendix is not State or Federally enforceable, but is presented to assist Ash Grove, permitting authority, inspectors, and the public.

1. **Direction to Plant:**

   Exit Interstate 15 at the Montana City exit. Proceed east on Highway 518 for approximately 1 mile. The facility is located directly south of Highway 518.

2. **Safety Equipment Required:**

   a. All inspectors will be required to wear hard hats at all times when in the plant area. Hard hats will be furnished by the inspector and are to be maintained in good repair.

   b. Protective eye equipment will be used. Eye protection is mandatory in all plant areas. Safety glasses will meet or exceed ANSI Standard Z-87.

   c. Respirators and other personal equipment are to be used where needed and all such equipment will be provided by the inspector.

   d. Steel-toed safety boots shall be worn by all inspectors.

   e. Hearing protection with a minimum noise reduction rating of 24 DBA is mandatory in posted areas.

3. **Facility Plot Plan:**

   A copy of the facility Plot Plan is on file with DEQ or may be received by contacting an Ash Grove representative.

Appendix E. Pollution Control Device Inspection and Maintenance Plan

ASH GROVE CEMENT COMPANY
MONTANA CITY PLANT

Pollution Control Device Inspection and Maintenance Plan

Title V Air Operating Permit
#OP2005-13

March 10, 2023
Revision 4

Overview

Ash Grove Cement Company operates a Portland Cement pyropressing plant east of Montana City, Montana. The plant is located approximately 3 miles south of East Helena on a portion of the Boulder Batholith along Prickly Pear Creek.

Contained in this document is the Air Pollution Control Equipment and Maintenance Plan (Plan) that outlines the equipment used, general control equipment inspection information, and maintenance schedule for the facility's dust control and collection systems.

Provisions For Changing The Plan

The requirements of the Plan may be changed if both Ash Grove Cement Company and the Montana Department of Environmental Quality (DEQ) mutually agree in writing to any changes. Changes to the Plan cannot be implemented until both Ash grove Cements Company and the Department agree in writing.

1.0 Pollution Control Device Equipment Information

The required control equipment information is contained in Appendix A

2.0 Inspection and Maintenance Schedule

Ash Grove will perform checks of the following dust control device inspections and maintenance and record any changes done to the equipment.

2.1. Daily Check

Check exhaust for visible emission during daylight hours.

Regardless of the emission limit on the unit, plant dust control systems should operate with essentially no visible emissions. If visible emissions are observed, Ash Grove will investigate the issue to determine the reason for the excess visible emissions. Possible actions can include, but are not limited to:

- Checking differential pressure (DP) loss and/or fan static pressure or fan amps (on Programmable Logic Controller (PLC) – or control room operations screen)
- Checking compressed air system for leakage or damage, if applicable.
- Shutting down the operating equipment and performing an internal inspection of filter bags or cartridges.

2.2. Quarterly Checks (*Performed during shutdown only)

2.2.1. Check hoppers for:

- Proper heater operation (if applicable)
- Proper level alarm system (if applicable)

- Proper vibrator operation (if applicable)
- Exterior Corrosion
- Air leakage

2.2.2. Check rotary valves
2.2.3. Check screw conveyor*
2.2.4. Check DP Transmitters for proper operation

2.3. Annual Checks

2.3.1. Collector Items for:
- Proper ducting to and from fabric or cartridge filters
- Good condition of exterior shell
- Good condition of doors including seals
- No hopper damage
- Screw conveyor, or other air locking system functionality

2.3.2. Pulse-Jets for:
- Good condition of inlet diffuser or blast plate
- No damage of air pulse diaphragms
- Functionality of solenoid(s) that activate pulse-pipes (i.e. check cleaning sequence, cycle times)
- Pulse-pipe alignment and clamps
- Proper connection of compressed air lines including oilers and filters

2.3.3. Reverse air for:
- Proper reverse air fan operation
- Placement of dampers
- Good condition of damper drive systems
- Proper bag/cartridge tension and suspension
- Good condition of inlet diffuser or blast plate

2.3.4. Check bags or cartridge filters for:
- Proper fastening, tension, when applicable, hanging, and excess particle accumulation
- Possible leaks (i.e. holes, tears, etc.)

2.3.5. Check fan items for:
- Corrosion and material buildup
- Good fan bearings
- Bearing lubrication
- Good condition of fan housing

2.3.6. Check airlocks for:
- Good rotary feeder rotor condition
- Good rotor bearing condition
- No damage to drive sprocket
- No damage to driven sprocket

- Good condition of drive chain
- Proper lubrication

2.3.7. Check electrical and instrumentation:
- Fan motor
- Airlock motor
- Magnehelic gauge tubing and enclosures (where applicable)

3.0 Documentation

3.1. Daily Observations

Ash Grove Cement Company will record identification information for the dust collectors, the date and time of inspection, the inspector's name, and if excess visible emissions are observed, the corrective action shall be recorded. Daily inspections are performed, and records kept as identified in the appropriate Standard Operating Procedure (SOP).

3.2. Quarterly and Annual Inspections

Ash Grove Cement Company shall record identification information for the dust collectors, the date and time of inspection, the inspector(s) name(s), and the items inspected for each piece of pollution control equipment. The report will state whether maintenance or repairs were warranted. If maintenance is performed, Ash Grove Cement Company will record the date(s) of the maintenance activity and the item(s) repaired or replaced.

3.3. Component Failure Record

Ash Grove Cement Company will keep records of component failure(s) that are discovered during daily or annual inspections or that become apparent at any other time. The action taken upon discovery of a component failure will be recorded.

3.4. Record Retention

Pursuant to ARM 17.8.1212(s)(b), Ash Grove Cement Company will retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report or application.

Appendix A – Dust Collector Information

Dust Collector Designation	Plant Location	Title V EU ID	Manufacturer	Model No.	Serial No.	Rated Capacity (acfm)	Airlock Information	D/P Gauge (Y/N)	Cleaning Type	No. of Filters	Filter Material	# Modules	Air/Cloth Ratio	Exit Gas Temp
DA-1	Primary	CPC	Norblo	1994	DA-1	10,500	Rotary Valve	Yes	Pulse Jet	144	Polyester	1	3:1	Ambient
DA-2	BC-4 Area	SC	GE Electric	650-U	DA-2	1,000	Open	Yes	Pulse Jet	18	Polyester	1	2.6:1	Ambient
DA-3	Secondary	TSC	Norblo	BA-14	DA-3	6,000	Screw Conveyor	Yes	Pulse Jet	144	Polyester	1	2.1:1	Ambient
DA-4	Bin-2 Silo Tops	TBC	Norblo	BA-14	962-67	8,960	Open	No	Reverse Air	324	Polyester	3	1.3:1	Ambient
DA-5	Bin-5 Silo Tops	TLS	Norblo	BA-14	965-152CR	8,960	Open	Yes	Pulse Jet	200	Polyester	1	2.4:1	Ambient
DA-6	Raw Feeder Floor	TBM	Norblo	BA-14	962-64	7,480	Screw Conveyor	Yes	Pulse Jet	144	Polyester	1	2.2:1	Ambient
DA-8	Finish Feeder Floor	TFS	Norblo	BA-14	962-147CR	5,280	Screw Conveyor	Yes	Pulse Jet	144	Polyester	1	1.7:1	Ambient
DA-9E	Mill Room	PSC	BHA	09-2075	100-2073	9,200	Rotary Valve	Yes	Pulse Jet	144	Polyester	1	3.9:1	Ambient
DA-9W	Mill Room	TFM	BHA	09-2075	100-2073	14,311	Rotary Valve	Yes	Pulse Jet	216	Pleated Polyester Cartridges	1	2.7:1	225°F
DA-12	Valve House	CSA	Norblo	962-6C	DA-12	3,370	Open	No	Pulse Jet	108	Polyester	1	2.1:1	Ambient
DA-13	Silo Tops	CDC	Norblo	964-186	73-20387-325	4,300	Open	Yes	Pulse Jet	96	Nomex	1	4.3:1	Ambient
DA-14	South Packer	SLA	Norblo	BA-12	962-69	3,300	Screw Conveyor	No	Rapper	324	Polyester	3	1.1:1	Ambient
DA-15	North Packer	SLB	Norblo	BA-124	962-71	7,480	Screw Conveyor	No	Rapper	216	Polyester	3	1.6:1	Ambient
DA-16	Specialty Bin	SLM	Norblo	963-239CCR	DA-16	6,000	FG	No	Rapper	216	Polyester	2	1.8:1	Ambient
DA-17	Silo #13 Bottom	SLN	Norblo	964-187	DA-17	6,000	Screw Conveyor	Yes	Pulse Jet	60	Polyester	3	3.0:1	Ambient
DA-18	Silo #11 Top	CSB	Norblo	BA-14	964-186	6,000	Open	No	Reverse Air	216	Polyester	2	2.0:1	Ambient
DA-19	Clinker East	PL-O1	DCE	Unknown	DA-19	1,000	Open	No	Pulse Jet	12	Polyester	1	3.2:1	Ambient
DA-20	Clinker West	PL-02	DCE	Unknown	DA-20	1,000	Open	No	Pulse Jet	12	Polyester	1	3.2:1	Ambient
DA-21	Separator	FM	Fuller	Unknown	98-15030336	35,850	Rotary Valve	Yes	Pulse Jet	855	Nomex	1	2.2:1	174°F
DA-23	Cooler Vent	CLC	Mpul	289S-10-TRH	DA-23	34,800	Rotary Valve	Yes	Pulse Jet	1156 Total	Nomex	4	3.3:1	Varies
416.BFA – .BFF	Kiln	Kiln	Dustex	6136-16-17	NA	200,000	Rotary Valve	Yes	Pulse Jet	1632	Fiberglass PTFE membrane	6	3.2:1	< 500 F
416.BF3	Lime Silo	LS	Dustex	4205-5-5	DS201124414	1,000	None	Yes	Pulse Jet	25	Polyester	1	5.3:1	Ambient
416.BF4	Dust Bin	DL	Dustex	4205-6-6	DS201124414	1,00	None	Yes	Pulse Jet	36	Polyester	1	5.5:1	<200 F
416.BF5	DustMaster	DL	WAMCO	FC1J03PR	11-FC-12-0003240	125	None	Yes	Pulse Jet	3	Polyester	1	5:1	<200 F
416.BF6	Loadout Spout Dust	DL	DCL	CFM330	21207541	1,400	None	No	Pulse Jet	1	Polyester	1	4.2	<200 F
410.LS1	Loadout Spout BC-0	PL02	DCL	CFM330	217160202	1,800	None	No	Pulse Jet		Polyester	1	5.47:1	Ambient

Appendix F. CAM Plan – Transfer to/from Finish Mill

Monitoring Approach – Particulate Control Device	
I. Indicator	Particulate Control Device Filter Differential Pressure
Measurement Approach	Inlet and outlet of the particulate control device is monitored using a differential pressure transducer. The signal from the pressure transducer is recorded using a data acquisition system.
II. Indicator Range[1]	An excursion is defined as a daily average differential pressure of below 2 or above 8 inches of water pressure. An excursion triggers an inspection and possible corrective action.
III. Performance Criteria	
A. Data Representativeness	Pressure drop across the particulate control device is measured across the tube sheet. The minimum accuracy of the device is ±1 inch water pressure
B. Verification of Operational Status	
C. QA/QC Practices and Criteria	N/A
D. Monitoring Frequency	Pressure transducer is calibrated in accordance with manufacturer's recommendations and inspection quarterly for proper operation.
E. Data Collection Procedures	Pressure drop is continuously monitored and recorded. Data is stored in the plant histories and is accessed by the data acquisition system.
F. Averaging Period	A data acquisition system measures pressure drop continuously
	24-hour

[1]The above indicator ranges are a 24-hour average pressure range. Short-term spikes above or below this average do not necessarily indicate upset conditions. After cleaning, there may be a period of time required for the dust collector cartridges to build up a coating. During this period of time, the particulate control device differential pressure may be out of range.

Although a complete hard copy of Ash Grove's Transfer to/from Finish Mill Particulate Control Device CAM plan is not included in Appendix F of the permit, the contents of Ash Grove's CAM plan remain as applicable requirements as stated in the Title V Operating Permit #OP2005-12. To receive a hard copy of Ash Grove's Finish Transfer to/from Finish Mill Particulate Control Device CAM plan, please contact one of the following:

The Department of Environmental Quality
Air, Energy & Mining Division
Air Quality Bureau
1520 E. Sixth Ave.
P.O. Box 200901
Helena, Montana 59620-0901
Bureau Phone (406) 444-3490
DEQ-ARMB-Admin@mt.gov

OR

Ash Grove Cement Plant.
Montana City Plant
100 MT Highway 518
Clancy, MT 59634
Phone (406) 442-8855