PRELIMINARY DETERMINATION
ON PERMIT APPLICATION

Date of Mailing: November 12, 2015

Name of Applicant: Oldcastle Cement Materials Holding, Inc.

Source: Portland Cement Plant

Proposed Action: The Department of Environmental Quality (Department) proposes to issue a permit, with conditions, to the above-named applicant. The application was assigned Permit Application Number 0982-13.

Proposed Conditions: See attached.

Public Comment: Any member of the public desiring to comment must submit such comments in writing to the Air Quality Bureau (Bureau) of the Department at the above address. Comments may address the Department's analysis and determination, or the information submitted in the application. In order to be considered, comments on this Preliminary Determination are due by November 27, 2015. Copies of the application and the Department's analysis may be inspected at the Bureau's office in Helena. For more information, you may contact the Department.

Departmental Action: The Department intends to make a decision on the application after expiration of the Public Comment period described above. A copy of the decision may be obtained at the above address. The permit shall become final on the date stated in the Department's Decision on this permit, unless an appeal is filed with the Board of Environmental Review (Board).

Procedures for Appeal: The permittee may request a hearing before the Board. Any appeal must be filed before the final date stated above. The request for hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, Montana 59620.

For the Department,

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Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626

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JM:JP
Enclosure

MONTANA AIR QUALITY PERMIT

Issued to: Oldcastle Materials Cement Holdings, Inc.	MAQP: #0982-13
4070 Trident Road	Application Complete: 10/13/2015
Three Forks, MT 59752	Preliminary Decision Issues: 11/12/2015
	Department Decision's Issued:
	Permit Final:
	AFS #031-0005

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Oldcastle Materials Cement Holdings, Inc. (Oldcastle) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.701, *et seq.*, as amended, for the following:

Section I. Permitted Facilities

A. Plant Location

The Oldcastle Portland cement manufacturing facility is located in the Northeast ¼ of Section 9, Southeast ¼ of Section 4, Southwest ¼ of Section 3, and Northwest ¼ of Section 10, Township 2 North, Range 2 East, approximately 5 miles northeast of Three Forks in Gallatin County, Montana. A detailed listing of permitted equipment is contained in the permit analysis.

B. Current Permit Action

On June 23, 2015, the Department of Environmental Quality (Department) received a letter from Oldcastle Law Group requesting a name change from Holcim (US) Inc., to Oldcastle Materials Cement Holdings, Inc.

On August 18, 2015, Holcim requested that language regarding reporting limit day be changed from "By the 10th day of each month" to "By the 25th day of each month".

On October 13, 2015, the Department received an Application for an Air Quality Permit Modification from Bison Engineering, Inc. Oldcastle requested that the electro-static precipitator (ESP) be removed as the Best Available Control Technology (BACT) required for controlling particulate emissions from the kiln. This is because as of September 9, 2015, Oldcastle is now subject to the updated particulate matter emission limit of 0.07 pounds per ton of clinker produced as required by 40 CFR 63, Subpart LLL, also referred to as the PC MACT. This limit is much more stringent than the previous emission limit and Oldcastle installed a new fabric filter baghouse downstream of the ESP to ensure compliance. The new baghouse has demonstrated via performance testing that it alone will control particulate emissions to a level that complies with the PC MACT limit. The current permit action removes the ESP as the BACT requirement for the kiln and replaces it with the baghouse and corresponding emission limit.

Section II. Conditions and Limitations

A. Emission Control Requirements

Oldcastle shall install, operate, and maintain the following emission control equipment and practices, and all other emission control equipment and practices, as specified in the application for their Montana Air Quality Permit and all subsequent revisions.

1. Oldcastle shall operate and maintain a baghouse(s) to control emissions from the Finish Mill #2 sources listed below (ARM 17.8.752).

    a. A replacement air slide
    b. The clinker/gypsum feed belt via a booster fan
    c. The Finish Mill #2
    d. The bucket elevator
    e. The product separator

2. Oldcastle shall operate and maintain baghouse(s) to control emissions from the following coal and coke handling equipment (ARM 17.8.752).

    a. Screw conveyor from the coal/coke/crusher to the bucket elevator
    b. "Raw" coke storage silo
    c. Coke storage silo
    d. Two diverter valves
    e. Hammer mill
    f. Bucket elevator
    g. Coal storage silo
    h. Belt conveyor with weighing system at the base of the "raw" coke storage silo
    i. Coke grinding mill
    j. "Fine" coke storage silo, 220-ton

3. Oldcastle shall operate and maintain a baghouse to control kiln emissions (ARM 17.8.752).

4. Oldcastle shall operate and maintain a baghouse to control clinker cooler emissions (ARM 17.8.749).

5. Oldcastle shall operate and maintain baghouse(s) to control emissions from the rock silos (ARM 17.8.749).

6. Oldcastle shall operate and maintain baghouse(s) to control emissions from crushing and screening (ARM 17.8.749).

7. Oldcastle shall operate and maintain a baghouse to control emissions at the clinker belt conveyor (ARM 17.8.749).

8. Oldcastle shall operate and maintain baghouses to control cement kiln dust emissions from the components listed below (ARM 17.8.749).
    a. Cement kiln dust storage silo
    b. Cement kiln dust alleviator bin

9. Oldcastle shall operate and maintain a baghouse to control emissions from the Portland cement silos (ARM 17.8.749).

10. Oldcastle shall operate and maintain a baghouse to control emissions from the Finish Mill #4 system (ARM 17.8.749).

11. Oldcastle shall install, operate, and maintain a baghouse to control emissions from the pozzolan material storage silo (ARM 17.8.752).

12. Oldcastle shall install, use, and maintain enclosures around the pozzolan material system components listed below (ARM 17.8.752).

    a. Rotary feeder
    b. Weigh belt conveyor
    c. Screw line (conveyor)

13. Oldcastle shall use water spray, as necessary, to maintain compliance with the opacity limitation in Section II.C.12 when handling landfilled cement kiln dust (ARM 17.8.752).

14. Whenever process equipment is operating, Oldcastle shall use and maintain, as they were intended, conveyor covers, transfer point covers, or structural enclosures surrounding process equipment (ARM 17.8.749).

B. Operational Limitations

1. In the cement kiln, Oldcastle is authorized to burn up to 100% natural gas, up to 100% coal, up to 100% petroleum coke, or any combination of these fuels within the previously stated limits (ARM 17.8.749).

2. Oldcastle shall comply with the sulfur in fuel rule (ARM 17.8.322).

3. Oldcastle shall not use, in any rolling 12-month period, greater than 50,000 tons of pozzolan material in the system (ARM 17.8.752).

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

5. Oldcastle shall not handle, in any rolling 12-month period, greater than 85,000 tons of landfilled cement kiln dust (ARM 17.8.752).

6. Oldcastle shall limit kiln production to 425,000 tons of clinker during any rolling 12-month period (ARM 17.8.749).

7. Oldcastle shall limit clinker handling to 500,000 tons during any rolling 12-month period (ARM 17.8.749).

C. Emission Limitations

1. Oldcastle shall not cause or authorize to be discharged into the atmosphere from the kiln, any stack emissions that:

   a. Contain particulate matter in excess of 0.07 lb/ton of clinker produced (ARM 17.8.752),

   b. Contain NO_x emissions in excess of 1,568 lb/hr averaged over any rolling 30-day period, calculated from seven a.m. to seven a.m. on a daily basis (ARM 17.8.749), and

   c. Contain NO_X emissions in excess of 6.5 lb/ton of clinker produced, averaged over any rolling 30-day period. Periods of startup, shutdown, malfunction, emergencies, and normal operation shall be included in the rolling 30-day average calculation (Regional Haze FIP 40 CFR 52.1396), and

   d. Contain SO_2 emissions in excess of 124 lb/hr averaged over any rolling 30-day period, calculated from seven a.m. to seven a.m. on a daily basis (ARM 17.8.749), and

   e. Contain SO_2 emissions in excess of 1.3 lb/ton of clinker produced, averaged over any rolling 30-day period. Periods of startup, shutdown, malfunction, emergencies, and normal operation shall be included in the rolling 30-day average calculation (Regional Haze FIP 40 CFR 52.1396).

2. Oldcastle shall not cause or authorize to be discharged into the atmosphere any visible fugitive emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.308).

3. Oldcastle 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]).

4. Oldcastle 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 precaution limitation (ARM 17.8.749).

5. Oldcastle shall not cause or authorize to be discharged into the atmosphere visible emissions from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

6. Oldcastle shall not cause or authorize to be discharged into the atmosphere visible emissions from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

7. Oldcastle shall not cause or authorize the following to be discharged into the atmosphere, from the Finish Mill #2 baghouse.

    a. Particulate matter in excess of 0.02 gr/dscf (ARM 17.8.752), and

    b. Visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.340).

8. Oldcastle shall not cause or authorized the following to be discharged into the atmosphere from the coal/coke crusher baghouse(s) (formerly the coal/coke baghouse).

    a. Particulate matter in excess of 0.02 gr/dscf (ARM 17.8.752), and

    b. Visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.340).

9. Oldcastle shall not cause or authorized the following to be discharged into the atmosphere from the coke system baghouse.

    a. Particulate matter in excess of 0.02 gr/dscf (ARM 17.8.752), and

    b. Visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.340).

10. Oldcastle shall not cause or authorize the following to be discharged into the atmosphere from the pozzolan material silo baghouse (ARM 17.8.752).

    a. Particulate matter in excess of 0.02 gr/dscf, and

    b. Visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

11. Oldcastle shall comply with all applicable requirements of ARM 17.8.340, which references 40 CFR Part 60, Standards of Performance for New Stationary Sources.

    a. Subpart F - Standards of Performance for Portland Cement Plants shall apply to sources at Holcim including, but not limited to, the following:

        i. Finish Mill #2
        ii. Finish Mill #4
        iii. Storage Silos #26 through 30

    b. Oldcastle shall not cause or authorize to be discharged into the atmosphere from the Finish Mill #4, visible emissions that exhibit 10% opacity or greater, as required by Subpart F of 40 CFR Part 60 (ARM 17.8.340).

    c. Oldcastle shall not cause or authorize to be discharged into the atmosphere from the Finish Mill #2, visible emissions that exhibit 10% opacity or greater, as required by Subpart F of 40 CFR Part 60 (ARM 17.8.340).

d. Oldcastle shall not cause or authorize to be discharged into the atmosphere from Storage Silos #26 through 30, visible emissions that exhibit 10% opacity or greater, as required by, Subpart F of 40 CFR Part 60 (ARM 17.8.340).

12. Oldcastle shall not cause or authorize to be discharged into the atmosphere visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes when handling landfilled cement kiln dust (ARM 17.8.749).

13. Oldcastle shall comply with all applicable provisions of 40 CFR 63, Subpart LLL – National Emission Standards (NES) for Hazardous Air Pollutants (HAP) from the Portland Cement Manufacturing Industry. The Oldcastle Trident facility was designated an area source for the purposes of determining the applicability of Portland Cement Maximum Achievable Control Technology (PC MACT). (ARM 17.8.342 and 40 CFR 63, Subpart LLL).

14. Oldcastle shall comply with all applicable provisions of the Regional Haze FIP 40 CFR 52.1396 (Regional Haze FIP 40 CFR 52.1396).

D. Testing Requirements

1. Oldcastle shall conduct visible emission observations to assess compliance with the opacity limit in Section II.C.7 for the Finish Mill #2 baghouse at least once every 5 years or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.340).

2. Oldcastle shall conduct a performance source test on the Finish Mill #2 baghouse to determine compliance with the applicable particulate emission limit in Section II.C.7 at least once every 5 years or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105, ARM 17.8.340, and ARM 17.8.749).

3. Oldcastle shall conduct visible emission observations to assess compliance with the opacity limit in Section II.C.8 for the coal/coke crusher baghouse at least once every 5 years or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

4. Oldcastle shall conduct a performance source test on the coal/coke crusher baghouse to determine compliance with the applicable particulate emission limit in Section II.C.8 at least once every 5 years or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

5. Oldcastle shall conduct visible emission observations to assess compliance with the opacity limit in Section II.C.9 for the coke system baghouse at least once every 5 years or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

6. Oldcastle shall conduct a performance source test on the coke system baghouse to determine compliance with the applicable particulate emission limit in Section II.C.9 at least once every 5 years or according to another testing/ monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

7. Oldcastle shall conduct a performance source test on the kiln to determine compliance with the applicable particulate emission limit in Section II.C.1 at least once every 5 years or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

8. Oldcastle shall demonstrate compliance with NO_x and SO_2 emission limits in Section II. C.1 (b) and (c) by conducting source tests on the kiln for NO_x and SO_2 concurrently at least once every 5 years or according to another testing/monitoring schedule as may be approved by the Department. The source tests shall be conducted under conditions representative of Holcim's operating conditions (ARM 17.8.105 and ARM 17.8.749).

9. Oldcastle shall monitor its compliance with NO_x and SO_2 emission limits in Section II. C.1 (b) and (c) by CEMs. Subject to any presumption created by the compliance demonstration tests conducted under Section II.D.8 and the provisions of ARM 17.8.132, the data generated from the CEMs may be used in any subsequent proceeding regarding compliance with those emission limits. These CEMs must be operated while the kiln is operating and must measure the NO_x and SO_2 emissions, including the volumetric flowrate. These CEMs shall complete one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. The performance specification procedures conducted by Holcim must conform to 40 CFR part 60, Appendix B, Specification 2 and 6 and be approved by the Department. On-going quality assurance requirements must conform to 40 CFR Part 60, Appendix F.

10. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

11. The Department may require further testing (ARM 17.8.105).

E. Reporting Requirements

1. Oldcastle shall supply the Department with annual production information for all emission points, as required by, the Department in the annual emission inventory request. The request will include, but is not limited to, the amount of pozzolan material used, the amount of post-consumer recycled container glass used in the kiln, the amount of landfilled cement kiln dust handled, the amount of clinker produced in the kiln, and the amount of total product handled (ARM 17.8.749).

   Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. Oldcastle shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include ***the addition of a new emissions unit,*** change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be

submitted to the Department, 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)(d) (ARM 17.8.745).

3. Oldcastle shall document, by month, the amount of pozzolan material used in the pozzolan material system. By the 25th day of each month, Holcim shall total the amount of pozzolan material use during the previous 12-months to verify compliance with the limitation in Section II.B.3 The records compiled shall be maintained by Holcim as a permanent business record for at least 5-years following the date of the recording, shall be submitted to the Department upon request, and shall be available at the plant site for inspection by the Department (ARM 17.8.749).

4. Oldcastle shall document, by month, the amount of post-consumer recycled container glass used in the kiln. By the 25th day of each month, Holcim shall total the amount of recycled glass used in the kiln during the previous 12-months to verify compliance with the limitation in Section II.B.4 A written report of the compliance verification, including the previous 12-month totals of recycled glass used, shall be submitted annually to the Department no later than March 1 and may be submitted along with the annual emission inventory (ARM 17.8.749).

5. Oldcastle shall document, by month, the amount of landfilled cement kiln dust handled. By the 25th day of each month, Oldcastle shall total the amount of cement kiln dust handled during the previous 12-months to verify compliance with the limitation in Section II.B.5 A written report of the compliance verification, including the previous 12-month totals of landfilled cement kiln dust handled, shall be submitted annually to the Department no later than March 1 and may be submitted along with the annual emission inventory (ARM 17.8.749).

6. Oldcastle shall document, by month, the amount of kiln production. By the 25th day of each month, Oldcastle shall total the amount of kiln production during the previous 12-months to verify compliance with the limitation in Section II.B.6 A written report of the compliance verification, including the previous 12-month totals of kiln production, shall be submitted annually to the Department no later than March 1 and may be submitted along with the annual emission inventory (ARM 17.8.749).

7. Oldcastle shall document, by month, the amount of clinker handling. By the 25th day of each month, Oldcastle shall total the amount of clinker handling during the previous 12-months to verify compliance with the limitation in Section II.B.7 A written report of the compliance verification, including the previous 12-month totals of clinker handling, shall be submitted annually to the Department no later than March 1 and may be submitted along with the annual emission inventory (ARM 17.8.749).

8. Oldcastle shall document that conveyor covers, transfer point covers, or structural enclosures surrounding process equipment were maintained and in place during operation of process equipment. The records shall include all repair and maintenance activity to all conveyor covers, transfer point covers, or structural enclosures. The records must include, but are not limited to, the date, time, and action(s) taken for repair and maintenance (ARM 17.8.749).

9. Oldcastle shall provide to the Department reports from the CEMs for NO_x and SO_2, which conform to 40 CFR Section 60.7(c). Oldcastle shall provide these reports on a quarterly basis for the first year after the CEMs are operating and the performance specification procedures have been approved in writing by the Department and semi-annually thereafter (ARM 17.8.749).

Section III. General Conditions

A. Inspection – Oldcastle shall allow the Department's representatives access to the source at all times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Oldcastle fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Oldcastle of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The Department's decision on the application is not final unless 15 days have elapsed and there is no request for a hearing under this section. The filing of a request for a hearing postpones the effective date of the Department's decision until the conclusion of the hearing and issuance of a final decision by the Board.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Holcim may be grounds for revocation of this permit, as required by, that Section and rules adopted thereunder by the Board.

Montana Air Quality Permit (MAQP) Analysis
Oldcastle Cement Materials Cement Holdings, Inc.
MAQP #0982-13

I. Introduction/Process Description

A. Permitted Equipment

Oldcastle Materials Cement Holdings, Inc. (Oldcastle) operates the following equipment at the Trident facility located in the Northeast ¼ of Section 9, Southeast ¼ of Section 4, Southwest ¼ of Section 3, and Northwest ¼ of Section 10, Township 2 North, Range 2 East, approximately 5 miles northeast of Three Forks in Gallatin County, Montana.

Source Description	Control Equipment	Efficiency
Disturbed Area – Fugitive		
Drilling		
Blasting		
Limestone, Sand, Shale Removal		
Transfer, Conveying, and Screening		
Raw Material Storage Piles		
Haul Roads – Fugitives	dust suppression	85%
Primary Crusher	fabric filter	99%
Secondary Crusher	fabric filter	
Crusher Screen	fabric filter	99%
Raw Material Silo #1	fabric filter	99%
Raw Material Silos #2 and 3	fabric filter	99%
Raw Material Silos #4 and 5	fabric filter	99%
Raw Material Silos #6 and 7	fabric filter	99%
Coal/Coke Unload Fugitive		
Coal/Coke Transfer Handling Fugitive		
Coal Outside Storage Pile		
Coke Outside Storage Pile		
Coal/Coke Crusher	fabric filter	99%
Coal/Coke Silo – Bucket Elevator	fabric filter	99%
Coal/Coke Silo - Bin Vent	fabric filter	99%
Coke System Baghouse	fabric filter	99%
Fluid Coke Silo – Loading		
Fluid Coke Silo Unloading		
Kiln	fabric filter	
Sorbent Injection for Kiln Fabric Filter	sorbent silo bin vents (2)	
Alleviator Bin (Dust Scoop System)	fabric filter	
Clinker Cooler	fabric filter	99.8%
Inside Clinker Transfer	fabric filter	99.8%
Gypsum/Clinker Storage Silo	fabric filter	99%
Cement Kiln Dust Storage Load	fabric filter	99%
Cement Kiln Dust Storage Unloading	dust suppression	50%
Emergency Clinker Bins Loading	fabric filter	99%

Source Description	Control Equipment	Efficiency
Emergency Clinker Storage Silo 1		
Emergency Clinker Storage Silo 2		
Emergency Clinker Storage Silo 3		
Emergency Clinker Storage Silo 4		
#2 Finish Mill	fabric filter	99%
Clinker Transfer #2 Finish Mill	fabric filter	99%
#3 Finish Mill Transfer	fabric filter	99%
#3 Finish Mill	fabric filter	99%
Clinker Transfer #4 Finish Mill	fabric filter	99%
#4 Finish Mill Product Separator	fabric filter	99.8%
#4 Finish Mill Vent	fabric filter	99.8%
Masonry Storage Bins 1- 3	fabric filter	95%
Cement Storage Silos 4 – 5	fabric filter	99%
Cement Sack Machine #1	fabric filter	98%
Cement Sack Machine #2	fabric filter	98%
Cement Sack Machine #3	fabric filter	98%
Cement Sack Machine #4	fabric filter	98%
Cement Silos 1-7, 10, 11, 13	fabric filter	99%
Cement Silos #8, 9, 12	fabric filter	99%
Cement Transfer 1-13 to Bulk	fabric filter	99%
Cement Storage Silo 14-25	fabric filter	99%
Cement Storage Silo 26-30	fabric filter	99%
Bulk Cement Transfer and Truck Loadout 1	fabric filter	99%
Bulk Cement Transfer and Truck Loadout 2	fabric filter	99%
Bulk Cement Rail Car Loadout	fabric filter	99%
Bulk Cement Rail Car Loadout Bucket Elevator	fabric filter	
Diesel Fuel		
Gasoline		
Pozzolan Material Storage Silo	fabric filter	99%
Rotary Feeder	fabric filter	95%
Weighbelt Conveyor	fabric filter	95%
Screw Line (conveyor)	fabric filter	95%
Handling Landfilled Cement Kiln Dust	water spray	50%
Waste Oil Burner		
Emergency Generator		

B. Facility Description

Oldcastle operates a cement manufacturing plant at their Trident facility near Three Forks, Montana. Oldcastle operates 24 hours per day, 365 days per year. Raw materials, such as limestone, shale, and sandstone, are mined at the Trident site. The raw materials, as well as iron ore purchased from outside vendors, are crushed, screened, and stored in dedicated silos.

Measured amounts of each material are conveyed to the raw materials mill where water is added and the mixture is pulverized into a "fine" slurry. The slurry is sent to Trident's only kiln, where clinker is produced. The clinker is then sent to the clinker cooler and

cooled from approximately 2,500 °F to 150 °F. The clinker is then transferred to storage silos or alternative storage sites (usually covered) if the silos are full. Clinker is mixed with 5% gypsum and pulverized to produce Portland cement. The cement enters a high efficiency air separator and is sent to a dust collector. Cement from the dust collector is sent to a cement cooler via an air slide. The cooled cement is then pneumatically conveyed to cement storage silos.

C. Permit History

On April 27, 1971, the Ideal Cement Company received **Permit #282-072171**. This permit approved the construction of 10 pieces of control equipment, as follows:

1. An electrostatic precipitator to control kiln emissions – sized for 300,000 cfm @ 700 °F, 15 gr/acfm inlet, 0.15 gr/acfm outlet, and 99.9% efficiency.

2. A pulsejet type baghouse to control clinker cooler emissions – sized for 100,000 cfm @ 350 °F, 8.3: 1 air/cloth ratio, and Nomex bags.

3. Four Micro-pulsaire dust collectors on the rock silos as follows:

    - Two @ 7.4:1 air/cloth ratio, 843 ft^2 cloth area, Model IF124
    - Two @ 7.8:1 air/cloth ratio, 670 ft^2 cloth area

4. Two Micro-pulsaire dust collectors to control emissions from crushing and screening as follows:

    - Crushing – Micro-pulsaire model IFI-48, 7200-cfm capacity fan
    - Screening – Micro-pulsaire model IFI-24, 6400-cfm capacity fan

5. One small baghouse to control emissions at the clinker belt conveyor.

6. One small baghouse to control emissions at the dustbin near the precipitator.

On May 3, 1971, the Ideal Cement Company received **Permit #293-080471** to construct five pieces of equipment.

1. Primary Crusher, 450 tons per hour
2. Vibrating Screen, 6 ft x 12 ft, Missouri-Rodgers
3. Raw Mill, 11 ft x 34 ft, Bawl Mill, 2,000 hp, F.L. Smith
4. Kiln, 12 ft x 450 ft, Wet Process Rotary Kiln, F.L. Smith, 400 hp, kiln draft fan
5. Clinker Cooler, Folax Grates, F.L. Smith

Commitments to the construction of this equipment were made prior to August 17, 1971, so the equipment is not subject to New Source Performance Standards (NSPS) Subpart F.

On April 16, 1975, the Ideal Cement Company was issued **Permit #811-050475** to combust coal in their cement kiln.

On July 19, 1976, Ideal Basic Industries was issued **Permit #982** to construct four Portland cement storage silos. These silos were controlled by a baghouse.

On January 6, 1984, a modification to **Permit #811-050475** was issued to Ideal Basic Industries that allowed the gas/coal-fired cement kiln to burn a coal (75%)/coke (25%) combination fuel. However, as a result of increases in NO_x emissions observed from the August 1983 source tests, the Montana Department of Environmental Quality (Department) issued a letter on January 9, 1984, that stated they would grant a permit modification only if there were no increases in emissions. Therefore, additional NO_x source testing was completed in June and August 1985 and July 1986. Results of the July 1986 testing showed that a major permit modification was not required. On June 25, 1986, an application was submitted from Ideal Basic to burn up to 50% coke, but a permit action was not issued.

In 1990, Ideal Basic Industries changed its name to Holnam, Inc. (Holnam).

On August 9, 1990, Holnam submitted a **Permit Application #0982-01** for use of alternative fuels in the cement kiln. This permit application was withdrawn.

On November 22, 1993, Holnam submitted **Permit Application #0982-02** for replacement of sections of the cement kiln. The changes proposed in the application were determined to be maintenance and did not require a permit change.

Permit #0982-03 was issued to Holnam on July 29, 1995. Holnam proposed to: upgrade the existing cement Finish Mill #2 baghouse to a modern baghouse; replace the Finish Mill #2 air slide; replace two existing dust collectors on the coal/coke process with one unit; and construct a separate coke grinding, storage, and transport system with dust collection.

The Finish Mill #2 baghouse, which replaced an existing baghouse, controlled the emission units listed below.

1. A replacement air slide
2. The clinker/gypsum feed belt via a booster fan
3. The Finish Mill #2
4. The bucket elevator
5. The product separator

The air slide was totally enclosed and was necessary for the transport of cement from the elevator to the product separator (air separator).

The replacement of two existing dust collectors on the coal/coke baghouse controlled the equipment listed below.

1. A diverter valve at the top of the existing coal/coke storage silo
2. A 24-inch covered screw conveyor that transports the coke from the above diverter valve
3. A 290-ton "raw" coke storage silo
4. Two diverter valves
5. The hammermill

6. The bucket elevator
7. The coal/coke storage silo
8. The covered screw conveyor

The separate coke system transported coke on the existing path up to the point of delivery into the top of the coal/coke storage silo. At this point, the system incorporated a gate that discharged into a 290-ton capacity "raw" coke storage silo. Coal was diverted into the existing coal/coke storage silo. The proposed raw coke storage silo gravity fed onto a covered belt assembly, where the material was weighed before it was gravity fed into the coke grinding mill. The ground coke fines were then evacuated from the grinding mill via a 15,400-cfm fan that pneumatically transported the crushed coke to the proposed coke system baghouse where the gas and solid phases were separated. The ground, "fine" coke material discharged from this dust collector into a 220-ton "fine" coke storage silo. Pneumatic transport of the fine coke particles from this silo to the kiln hood was facilitated by a coke blower system.

The proposed coke system baghouse and fan controlled the equipment listed below.

1. A belt conveyor with weighing system at the base of the raw coke storage silo
2. A coke grinding mill
3. A 220-ton "fine" coke storage silo

The emission increase as a result of the changes was estimated at 10.84 ton/year of particulate matter.

Permit #0982-04 was issued on May 8, 1998. Holnam submitted a complete permit application on March 30, 1998. The application proposed a pozzolan material (fly ash) system that included the following new equipment: pozzolan material storage silo with bin vent dust collector, rotary feeder, weighbelt conveyor, and screw line (conveyor). Holnam intended to introduce pozzolan material at the finish mill to produce Holnam Performance Cement (HPC). Controlled PM-10 emissions from the equipment were approximately 2.10 tons per year. The permit also updated the compliance demonstrations and notifications that were completed and rule references that were outdated.

Permit #0982-03 had included conditions from Permits #282-072171, #293-080471, #811-050475, #982, and Modification #811-050475. Therefore, Permit #0982-04 also replaced these permits.

Permit Modification #0982-05 was issued on September 3, 1998, to allow Holnam to conduct a test burn that exceeded the operational limit to burn up to 25% petroleum coke. The amount of petroleum coke burned in the kiln was limited so that 15 tons per year of SO_2 was not exceeded; therefore, this test burn was completed according to ARM 17.8.705(1)(q).

However, as described in ARM 17.8.733(1)(c), the permit needed to be modified to allow the temporary burning of petroleum coke in excess of the permitted limitation. Holnam was required to comply with the sulfur-in-fuel requirements contained in ARM 17.8.322(6)(c) and to maintain records to demonstrate compliance with the petroleum coke limitation in Section II.F.1.b of Permit #0982-05. In addition, testing was required to determine emissions at the maximum rate of petroleum coke burned. Permit #0982-05 replaced Permit #0982-04.

Notification was received by the Department that test burning began on November 14, 1999, and concluded on November 14, 2000. Coke test burn air emission source testing was conducted November 1 through 4, 2000.

Permit #0982-06 was issued on January 24, 1999. The 99.9% control efficiency for removal of particulate emissions from the kiln exhaust using an electrostatic precipitator (ESP) in Section II.A.4 of the permit was removed. The change did not result in an increase in allowable particulate emission rates from the kiln. Permit #0982-06 replaced Permit #0982-05.

Holnam proposed (in **Permit Application #0982-07**) to use 800 ton/yr of post-consumer recycled container glass in the kiln and to handle 85,000 ton/year of landfilled cement kiln dust. Holnam submitted an emission inventory that identified 5.13 lb/year of emissions of HAPs being emitted as a result of using post-consumer recycled container glass. Holnam submitted a health risk assessment that demonstrated that this proposal constituted a negligible risk to human health and the environment. In addition, handling 85,000 ton/year of landfilled cement kiln dust involved moving landfilled dust from the landfill with a front-end loader to a truck. The cement kiln dust was sold for use in reclamation projects. Handling the cement kiln dust resulted in an emissions increase of approximately 23.8 tons per year of total particulate matter and 11.9 tons per year of PM_{10}. Permit #0982-07 replaced Permit #0982-06.

Permit #0982-08 was issued on December 29, 1999, to correct condition II.B.5, that was intended to limit the use of pozzolan material fed through the pozzolan material system. This is specific to the pozzolan material storage silo, rotary feeder, weighbelt conveyor, screw line, and bin vent dust collector, and not the entire facility. Also, condition II.E.3 was updated to reflect this correction. Permit #0982-08 replaced Permit #0982-07.

Permit #0982-09 was issued on October 20, 2000. On August 10, 2000, Holnam submitted a permit application to request federally enforceable permit conditions to limit potential particulate matter emissions. Holnam requested the federally enforceable conditions to ensure that the facility's potential emissions would be within the "area source" definition as defined in the Portland Cement Maximum Achievable Control Technology (PC MACT). Although this permit action could have been accomplished through a permit modification, an alteration was requested by Holnam to allow the public to comment on the permit. *De minimis* changes were also added to the permit (Department Decision) during the comment period. Permit #0982-09 replaced Permit #0982-08.

On April 6, 2001, Holnam submitted a complete permit application to the Department to request a change in the fuel mixture to provide additional operational flexibility at the Trident facility. Holnam was authorized to burn up to 100% natural gas, up to 100% coal, up to 25% coke, or any combination of these fuels for the kiln, providing the coke limit is not exceeded. This change of **Permit #0982-09** eliminated any limit on the amount of petroleum coke Holnam uses as a fuel in its kiln, but placed emissions limits on the amount of sulfur dioxide (SO_2) and nitrogen oxides (NO_x) emitted from the kiln. Holnam is required to monitor emissions of these pollutants through the use of continuous emissions monitors (CEMs).

On February 20, 2001, the Department received a letter from Holnam requesting a *de minimis* change to **Permit #0982-09** resulting from the recycling of cement kiln dust (CKD) directly back into the kiln. The Department agreed that emissions from the transfer of CKD would be a *de minimis* change to **Permit #0982-09**. Holnam, therefore, was not required to obtain a permit alteration to commence with this project.

On April 11, 2001, Holnam submitted a request to modify Preconstruction **Permit #0982-09** to change or modify language in the permit. In general, requests included removal of detailed equipment names and facility documentation requirements for pozzolan material, post-consumer recycled container glass, and amount of lime kiln dust handled from the "3rd day of each month" to the "10th day of each month."

On June 19, 2001, **Permit #0982-10** to increase coke from 25% to 50 %, was appealed by The Sierra Club, Montana's Against Toxic Burning, and Montana Environmental Information Center. The appeal of Permit #0982-10 was dismissed before the Montana Board of Environmental Review (BER) on November 16, 2001. Permit **#0982-10** was issued final with modifications on December 04, 2001.

On October 3, 2001, Holnam applied to amend **MAQP #0982-10** to allow for the use of waste tires for up to 15% of the total fuel heat input to the kiln on a Btu basis. On March 24, 2003, the Department issued a preliminary determination for **MAPQ #0982-11** pending finalization of an Environmental Impact Statement (EIS) regarding tire burning in the kiln. Utilization of waste tires as fuel, as of the date of this current permit issuance, has not been finalized.

On November 14, 2001, the Department received a letter from Holnam requesting a name change from Holnam, Inc. to Holcim (US) Inc. (Holcim) effective December 12, 2001.

On September 26, 2005, the Department received a letter from Holcim requesting concurrence that a proposed CKD recycling project would be considered *de minimis*. This 2005 dust scoop proposal from Holcim was a different CKD recycling project from the one approved and tested in 2001 (discussed above). The 2001 project tested a CKD-to-slurry system, which was not implemented due to the results of the test. The Department approved the proposed CKD dust scoop method as *de minimis*, and the project was implemented. Two new baghouses were proposed for the system; however, only one new baghouse was installed to control emissions from the project. The new baghouse, installed at the alleviator bin, is included in the list of emission units and in the permit conditions section. Negative pressure from the ESP was used in lieu of a second baghouse for control of CKD emissions.

On December 13, 2005, the Department officially denied a *de minimis* request from Holcim to operate a grizzly screen while the Dixie mill coal/coke crusher was undergoing repairs. Eventually, the Dixie mill was replaced by a roller crusher. References to the Dixie mill were removed from the permit, but the coal/coke crusher requirements were maintained.

In December 2008, the Department received a letter from Holcim describing a project with a *de minimis* increase in emissions. Three loadout spouts and three baghouses were replaced in the truck and rail loadouts, and a baghouse for a new rail car loadout bucket

elevator was added. The Department agreed that the modification to the loadouts met the definition of *de minimis*. The bucket elevator and baghouse added as part of this project were added to the list of emission units.

On January 28, 2013, the Department received a notification letter from Holcim regarding a *de minimis* change to the raw material crushing system. Holcim proposed to install a secondary crusher and associated baghouse with an increased potential to emit of 3.7 tons PM_{10}. The Department concurred that the project met the definition of *de minimis*. The equipment list is updated to include the secondary crusher and its baghouse. Permit conditions already require that crushing and screening operations be controlled.

In May 2014, the Department concurred that the proposed upgrades to meet the Portland Cement MACT met the definition of *de minimis* since the proposed new equipment would cause an increase in emissions of less than 5 tons of PM_{10} annually. (Overall plant emissions decreased due to the project, but those decreases were not included in order to simplify the analysis.) New emission units added as a result of the project were two silo bin vents for the new adsorbent injection system and a new polishing baghouse to control kiln emissions. The CKD baghouse was upgraded to handle increased exhaust flow, which results in an increase in potential emissions. An air-to-air heat exchanger was added upstream of the clinker cooler baghouse to allow for the elimination of the clinker cooler bypass. The heat exchanger is not an emitting unit, and addition of the heat exchanger resulted in decreased emissions at the clinker cooler. The de minimis approval letter indicated that Holcim should request that the new kiln baghouse and the two adsorbent silo bin vents be added to the list of emission units, and a permit condition to operate and maintain the kiln baghouse and adsorbent injection system be established.

A new kiln SO_2 emission limit was added to reflect a federally enforceable requirement established by the Regional Haze Federal Implementation Plan (40 CFR 52.1396). The emissions inventory presented in this analysis section was also revised to reflect the new limit.

On March 19, 2015, Bison Engineering, Inc. (Bison) submitted to the Department on behalf of Holcim a request to amend its MAQP to incorporate changes that have occurred since the most recent permit revision in 2001. A full listing of de minimis changes that have occurred since the 2001 permit revision are included below

Date of Submittal to Department	Project Name	Detail	Updates included in MAQP #0982-12
4/8/2004	Truck vacuum system	A vacuum system and small baghouse were added to control fugitive dust emissions generated during customer truck cleaning.	None- The project did not add any new emission sources; it was a discretionary project to reduce nuisance emissions from and existing small fugitive source.
8/13/2004	Pneumatic transport of CKD to Silo 22	Proposed baghouse to control transfer of CKD to existing Silo 22	None – The proposed work was not carried out. Modifications to this original proposal were clarified in a follow-up letter described below (11/29/2004)

Date of Submittal to Department	Project Name	Detail	Updates included in MAQP #0982-12
8/25/2004	Finish Mill materials unloading	A railcar vibrator was replaced with a railcar shaker to expedite the unloading of raw materials. Originally proposed 6/10/2003, this update added structural enclosures and a baghouse to the project.	None – The project did not add any new emission sources; it was a purely discretionary project to reduce nuisance emissions from an existing small fugitive source.
11/29/2004	Pneumatic transport of CKD to Silo 21 and Pozzolan System	A new baghouse was installed on Silo 21 with an estimated potential emissions increase of 3.9 tpy PM_{10}. Potential emissions from the existing Pozzolan Silo baghouse (5.7 tpy) were also included in the analysis.	None – The baghouse installed as part of this project was integral to the system and therefore considered process equipment, not control equipment. Further, both Silo 21 and the Pozzolan system have existing permit conditions requiring operation of a baghouse (Section II.A, Conditions 12, 13)

Date of Submittal to Department	Project Name	Detail	Updates included in MAQP #0982-12
8/9/2005	Finish Mill #2 baghouse replacement	Finish Mill #2 baghouse was replaced; the new baghouse has the same model number, manufacturer and specifications as the baghouse it replaces.	None – Condition exists in the permit already for a baghouse on the Finish Mill #2. Equipment change out was considered like-kind.
9/23/2005	Recycling of CKD – Installation of kiln 'dust scoop' system	Two new baghouses were proposed to control CKD emissions between the screw line and dust scoops. One baghouse was installed to control emissions at the alleviator bin. Negative pressure from the existing ESP was ultimately used to control dust emissions from the CKD pump instead of a second baghouse. Potential new emissions of 9 tpy PM_{10} were estimated for this project.	Yes – Added the alleviator bin baghouse to the equipment list in MAQP analysis. Added requirement to permit Section II.A.9 that Holcim operate and maintain a baghouse to control particulate emissions from the CKD alleviator bin.
11/18/2005	Repair of Dixie Mill; Grizzly Screen addition	A Grizzly screen was temporarily installed for sizing of solid fuels during mill repair	Yes – The Department required that the Grizzly screen be shut down. The Dixie Mill was ultimately replaced by a roller crusher.
5/4/2007	CKD unloading station dust collection	Fugitive dust from the CKD unloading station was rerouted via a suction port and hose to an existing CKD bin bucket elevator, which is controlled by an existing baghouse.	None- Potential new emissions from this project were zero and no new equipment was required.

Date of Submittal to Department	Project Name	Detail	Updates included in MAQP #0982-12
3/20/2008	Cement kiln burner pipe replacement	The kiln burner pipe was replaced with a more efficient burner pipe as part of the Best Available Retrofit Technology (BART) upgrade.	None – This repair on a closed system did not impact emissions. Kiln production rate was unaffected by the change and NOx emission theoretically decreased.
12/12/2008	Cement Loadout System	Existing loadout for trucks and railcars was replaced. A new elevator with its own baghouse was also added. Estimated potential emissions increase of 5.8 tpy of PM_{10}.	Yes – Bucket elevator and baghouse was added to the source description list in the MAQP permit analysis.
4/30/2010	Clinker Cooler Inlet	The Clinker Cooler inlet was modified to improve heat recovery. The project was expected to increase potential PM_{10} emissions by 1.3 tpy.	None- No new emitting units or control equipment were added as part of this project.

On May 28, 2010 the de minimis threshold changed from 15 tpy to 5 tpy.			
6/15/2011	NOx Reduction Trial	Urea was introduced into kiln for potential reduction of NOx.	None – No physical changes to existing systems were made and no emission increases were expected. The Department determined that Holcim was not required to make a de minimis change in this case.
08/10/11	Raw Material Crushing System	Secondary crusher proposed.	None – The proposed work was not completed. Work was carried out at a later date under a modified de minimis change (see 1/28/2013)
05/03/12	NESHAP trial	Adsorbent material was tested for mercury control. The project was completed over a week or two in May/June 2012.	None – This was a short-term trial conducted in anticipation of new control requirements under 40 CFR Part 63, Subpart LLL. (NESHAPs for the Portland Cement Manufacturing Industry)
01/28/13	Raw Material Crushing System	A secondary crusher and associated baghouse were installed. Estimated potential emissions increases of 3.7 tpy PM were anticipated.	Yes – This modification was added to the MAQP permit analysis. No changes to the permit terms and conditions were made as Section II.A already addresses control of emissions from crushing and screening.
3/20/13	PC MACT	Proposed Hg and additional PM control measures including elimination of the clinker cooler baghouse bypass	None – This action was not completed. The project was updated in 2014 (see 05/05/14).
08/06/13	Emergency Compressor	This compressor served as a temporary backup, a third-party rental that was used a very low number of hours.	None – No changes to equipment or plant operations were made. This installation resulted in negligible or no impact on emissions during its short duration on site.

Date of Submittal to Department	Project Name	Detail	Updates included in MAQP #0982-12
9/23/13	Clinker cooler Fan Addition	The clinker cooler was historically operated with five cooling air fans, but later reconfigured to operate with only three fans to conserve energy. This project added a fourth clinker cooler fan to improve cooling in anticipation of PC MACT changes.	None – No new emitting sources were added and use of this fan resulted in no new emissions.
05/05/14	PC MACT Revised	Two new sorbent silo bin vents, a new polishing baghouse, and an upgraded CKD baghouse were added. Estimated potential emissions of 2.3 tpy PM_{10} were anticipated due to the change.	Yes – requirement added to permit Section II.A.4 that, as of the compliance deadline of September 9, 2015, Holcim operate and maintain an adsorbent injection system, associated bin vents, and a polishing baghouse to control kiln emissions to reflect federally enforceable requirements of 40 CFR 63 Subpart LLL.
10/31/14	Fuel Tanks	Removal of three UST, installation of four AST. Estimated potential to emit 0.03 tpy VOC emissions using EPA tanks program 4.0.9d.	None – Since the tanks are insignificant emissions units, no permit conditions are required for these tanks.
3/9/15	Emergency Generator	Two existing emergency generators were replaced with a single new 470 hp diesel-fired emergency generator.	None- The new generator is certified Tier 3 and will operate less than 100 hours per year. The previous generators were not included in the MAQP but are identified in the operating permit as insignificant emission units. No additional permit conditions needed.

D. Current Permit Action

On June 23, 2015, the Department received a letter from Oldcastle Law Group requesting a name change from Holcim (US) Inc. to Oldcastle Materials Cement Holdings, Inc. (Oldcastle) effective August 1, 2015. On August 31, 2015, the Department received a letter of truth and accuracy signed by a responsible official.

On August 18, 2015, Holcim requested that language regarding reporting limit day be changed from "By the 10th day of each month" to "By the 25th day of each month".

On October 13, 2015, the Department received an Application for an Air Quality Permit Modification from Bison Engineering, Inc. Oldcastle requested that the electro-static precipitator (ESP) be removed as the BACT required for controlling particulate emissions from the kiln. This is because as of September 9, 2015, Oldcastle is now subject to the updated particulate matter emission limit of 0.07 pounds per ton of clinker produced as required by 40 CFR 63, Subpart LLL, also referred to as the PC MACT. This limit is much more stringent than the previous emission limit and Oldcastle installed a new fabric filter baghouse downstream of the ESP to ensure compliance. The new baghouse has demonstrated via performance testing that it alone will control particulate emissions to a level that complies with the PC MACT limit. The ESP has become redundant and unnecessary for Oldcastle to operate in compliance with current regulations. The current permit action removes the ESP as the BACT requirement for the kiln and replaces it with the baghouse and corresponding emission limit. **MAQP #0982-13** replaces MAQP #0982-12.

E. Additional Information

Additional information, such as applicable rules and regulations, BACT determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

   Oldcastle shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
6. ARM 17.8.221 Ambient Air Quality Standard for Visibility
7. ARM 17.8.222 Ambient Air Quality Standard for Lead
8. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

Oldcastle must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20 % for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate. (2) Under this rule, Oldcastle 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.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth the in this section.

6. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). Oldcastle is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts:

   a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:

   b. 40 CFR 60, Subpart F – Standards of Performance for Portland Cement Plants. The provisions of this Subpart are applicable to the following affected facilities in Portland cement plants: kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems. Sources subject to the requirements of this Subpart are applicable if the facility commences construction or modification of that source after August 17, 1971. This Subpart shall apply to sources at Oldcastle, including, but not limited to, the following:

      a. Finish Mill #2
      b. Finish Mill #4
      c. Storage Silos #26 through 30

      Finish Mill #4 replaced Finish Mill #1 in 1988 and the product storage silos were installed in 1976. Since commencement of construction occurred after August 17, 1971, for both of these sources, 40 CFR 60, Subpart F applies. The replacement of the air slide in the Finish Mill #2 system was considered a modification of the Finish Mill #2 system. Since this modification was proposed to occur after August 17, 1971, then 40 CFR Part 60, Subpart F was also considered applicable to Finish Mill #2.

7. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories. Oldcastle is considered a NESHAP-affected facility under 40 CFR Part 63 and is subject to the requirements of the following subparts.

a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a NESHAPs Subpart as listed below.

b. 40 CFR 63 Subpart LLL – National Emissions Standards for Hazardous Air Pollutants (HAPs) for The Portland Cement Manufacturing Industry. The Oldcastle Trident Plant must comply with all applicable requirements of this Subpart. On October 14, 1999, the Department received initial notification designating the Trident Plant a major source. Oldcastle completed testing for the facility to determine if emissions of HAPs and HCl could re-designate the facility as an area source. Results of the testing indicated that it was an area source for the purposes of determining the applicability of PC MACT.

D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Oldcastle submitted the appropriate permit application fee for the current permit action

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a facility to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant source that has the potential to emit more than 25 tons per year of any pollutant. Oldcastle has a PTE greater than 25 tons per year of carbon monoxide (CO), nitrogen oxides (NO_x), particulate matter (PM), particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}), and particulate matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$) therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. A Bison Engineering, Inc. submitted the required permit application for the current permit action on behalf of Oldcastle. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Bison submitted an affidavit of publication of public notice on behalf of Oldcastle for the October 29, 2015, issue of the Three Forks Herald, a newspaper of general circulation in the city of Three Forks, in Gallatin County, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that Holcim demonstrate compliance with applicable rules and standards before a permit can be issued. Furthermore, a permit may be issued with such conditions as are necessary to ensure compliance with all applicable rules and standards. Oldcastle has demonstrated compliance with applicable rules and standards as required for permit issuance.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized. Oldcastle was not required to submit a BACT analysis for the current permitting action because no new or altered sources are being addressed.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Oldcastle of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.101, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1-year after the permit is issued.

12. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

13. ARM 17.8.765 Transfer of Permit. (1) This rule states that an MAQP may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the Federal Clean Air Act (FCAA) that it would emit, except as this subchapter would otherwise allow.

Oldcastle is a major stationary source because it has the potential to emit more than 250 tons per year of a pollutant (excluding fugitive emissions). MAQP #0982-13 does not require Prevention of Significant Deterioration (PSD) review; however, in order to ensure that nitrogen oxides (NO_x) and sulfur dioxide (SO_2) emissions do not increase above significant levels, an emission limit has been established in prior permitting actions for SO_2 and NO_x.

G. ARM 17.8, Subchapter 12 - Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:

a. Potential to Emit (PTE) > 10 ton/year of any one HAP, PTE > 25 ton/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule.

b. PTE > 100 ton/year of any pollutant.

c. Sources with the PTE > 70 ton/year of PM-10 in a serious PM-10 nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #0982-13 for Oldcastle, the following conclusions were made:

a. The facility's PTE is greater than 100 tons/year for a pollutant.

b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year for all HAPs.

c. This source is not located in a serious PM_{10} nonattainment area.

d. This facility is subject to current NSPS (40 CFR 60 Subpart F and Subpart Y).

e. This facility is subject to a current MACT standard (40 CFR 63 Subpart LLL).

f. This source is not a Title IV affected source, nor a solid waste combustion unit.

g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that Oldcastle is a 'major source' of emissions as defined under Title V. The most recent Title V Operating Permit #OP0982-04 for this facility was issued by the Department on 2/26/15.

III. BACT Determination

A BACT determination is required for each new or modified source. Oldcastle shall install on the new or modified source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized. A BACT determination was required for the current permit action because the permit change is considered a permit modification."

On September 9, 2015, Oldcastle became subject to the new PM emission limit of the kiln in accordance with 40 CFR 63, Subpart LLL – National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry (PC MACT). The new limit is 0.07 lbs per ton of clinker produced. Oldcastle has installed a new fabric filter (baghouse) downstream of the ESP to ensure compliance with the new, more stringent federal limit for PM. Performance testing has demonstrated that the new baghouse operating by itself will control particulate emissions to a level that will comply with the PC MACT limit of 0.07 lbs per ton of clinker produced. A fabric filter baghouse is typically considered the best performing technology for the control of particulate emissions and is considered BACT; therefore, no further analysis is required. The Department concurs with Oldcastle's proposal that the current PC MACT limit of 0.07 lbs per ton of clinker of the kiln constitutes BACT.

The Department concurs with Oldcastle that the there is no need to operate the ESP in conjunction with the baghouse and that the baghouse alone, based on recent emissions testing, will satisfy the proposed BACT emissions limit. Furthermore, the energy requirement of the facility will be reduced by not operating the ESP.

IV. Emission Inventory

A. Potential Particulate Emissions

Emission Inventory Summary	Ton/Year
Total potential particulate emissions from Kiln	15

$$14.875\ \frac{Tons\ of\ PM}{year} = 425{,}000\frac{tons\ of\ clinker}{year}\ x\ 0.07\frac{lb\ of\ PM}{ton\ of\ clinker}\ x\ 0.0005\frac{ton}{lb}$$

A complete particulate emissions inventory for the Trident facility is available, upon request, from the Department.

B. Potential HAP Emissions

Emission Inventory Summary	Max. Ton/Year
Calculated potential HCl emissions	2.2
Calculated potential organic HAP emissions (VOC)	6.6
Calculated potential metal HAP emissions (1%PM)	0.11
Total calculated potential HAP emissions	**8.8**

Under MAQP #0982-13, the Trident facility was designated as an area source for the purpose of determining the applicability of Portland Cement Maximum Achievable Control Technology (PC MACT). In order to qualify as an area source, emissions from an individual HAP cannot exceed 10 ton/year and the combined HAP emissions cannot exceed 25 ton/year.

C. Potential Non-Particulate Emissions

	Ton/ Year	
Source	**NO_x**	**SO_x**
Cement Kiln	6,868	276

<u>Potential Nitrogen Oxide (NO_x) Kiln Emission Calculations</u>

Assumptions:
Maximum Kiln Throughput: 425,000 Tons of Clinker/yr {MAQP #0982-10}
425,000 Tons of Clinker/yr * 1 yr/8,760 hr = 49 Tons of Clinker/hr

Nitrogen Oxide (NO_x) Emission Factor: 32 lb of NO_x/Ton Clinker {Title V Application}

Calculations:
49 Tons Clinker/hr * 32 lb NO_x/Ton Clinker = 1,568 lb NO_x/hr = 6,868 Ton/yr

Potential Sulfur Dioxide (SO_x) Kiln Emission Calculations

Assumptions:
Maximum Kiln Throughput: 425,000 Tons of Clinker/yr {MAQP #0982-10}

Sulfur Dioxide (SO_2) Emission Factor: 1.3 lb of SO_2/Ton Clinker {Regional Haze FIP 40 CFR 52.1396}

Calculations:
425,000 Tons Clinker/yr * 1.3 lb SO_2/Ton Clinker = 276 Ton/yr

V. Existing Air Quality

Oldcastle's cement plant is located near the headwaters of the Missouri River in Gallatin County, Montana. Gallatin County is currently classified as attaining the National Ambient Air Quality Standards (NAAQS) for PM_{10}. The area's climate is semi-arid and the primary land utilization in the area is agricultural.

VI. Ambient Air Impact Analysis

The Department determined that no ambient air impact analysis was necessary for this permitting action because this action results in a large decrease in potential particulate emissions. Therefore, the Department believes this action will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department has conducted the following private property taking and damaging assessment.

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
	X	5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
	X	5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?

YES	NO	
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

VIII. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an Environmental Assessment is not required.

Analysis Prepared By: John P. Proulx
Date: 11/12/2015

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

DRAFT ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Oldcastle Materials Cement Holdings, Inc.
4070 Trident Road
Three Forks, MT 59752

Montana Air Quality Permit Number: 0982-13

Preliminary Determination Issued: November 12, 2015
Department Decision Issued:
Permit Final:

1. *Legal Description of Site*: The Oldcastle Materials Cement Holdings, Inc. (Oldcastle) facility is located in the Northeast ¼ of Section 9, Southeast ¼ of Section 4, Southwest ¼ of Section 3, and Northwest ¼ of Section 10, Township 2 North, Range 2 East, in Gallatin County, Montana.

2. *Description of Project*: Oldcastle requests that the electro-static precipitator (ESP) be removed from the Permitted Equipment Table and taken out of operation in favor of the more efficient baghouse for particulate emission control of the kiln. The installation of the baghouse was not required as part of a permit action and it is already constructed and in use in series with the ESP. This current permit action is to have the permit reflect the operation of the baghouse for particulate matter emission control in lieu of the ESP. It does not involve new construction of any facilities or demolition of existing facilities located on or around the Oldcastle facility.

3. *Objectives of Project*: The primary objective of the project is to decommission the ESP from operation at the Trident facility.

4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative consideres what would happen if there were no action taken by the permittee. If Oldcastle did not complete the proposed action, the facility would continue to operate the ESP and incure financial losses associated with power generation and consumption. The Department of Environmental Quality (Department) did not pursue the "no-action" alternative because Oldcastle demonstrated compliance with all applicable rules and regulations as required for permit issuance.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a BACT analysis, would be included in MAQP #0982-13.

6. *Regulatory Effects on Private Property*: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. *The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats				X		Yes
B	Water Quality, Quantity, and Distribution				X		Yes
C	Geology and Soil Quality, Stability and Moisture				X		Yes
D	Vegetation Cover, Quantity, and Quality				X		Yes
E	Aesthetics				X		Yes
F	Air Quality				X		Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources				X		Yes
H	Demands on Environmental Resource of Water, Air and Energy				X		Yes
I	Historical and Archaeological Sites				X		Yes
J	Cumulative and Secondary Impacts				X		Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS:
The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

There will be no impacts to terrestrial and aquatic life and habitats as there is no physical change to the surrounding environment associated with the current permit action.

B. Water Quality, Quantity and Distribution

The actions addressed in this permit would not result in a change in the amount or characteristics of surface water discharge or an alteration of the course or magnitude of any drainage system. Furthermore, this action would not result in a change in the quality or quantity of ground water. Therefore, no impacts to water quality, quantity, and/or distribution would occur from this permit action.

C. Geology and Soil Quality, Stability and Moisture

This project would not change the soil stability or geologic substructure or result in any increased disruption, displacement, erosion, compaction, or moisture loss, which would reduce productivity or fertility at or near the site. No unique geologic or physical features would be disturbed. Therefore, no impacts to geology and soil quality, stability, and moisture would occur from this permit action.

D. Vegetation Cover, Quantity, and Quality

There will be no impacts to vegetative cover, quanity, or quality associated with the current permit action.

E. Aesthetics

There will be no impacts to the aesthetics associated with the current permit action.

F. Air Quality

There will be minor impacts to air quality when the electro-static precipitator is taken offline and all emissions are routed to the main baghouse. These emissions are expected to remain the same but may increase, although the increase will be negligible.

The Clean Air Act, which was last amended in 1990, requires EPA to set NAAQS for pollutants considered harmful to public health and the environment (Criteria Pollutants: CO, NOx, Ozone, Lead, PM-10, SOx). The Clean Air Act established two types of NAAQS, Primary and Secondary. Primary Standards set limits to protect public health, including, but not limited to, the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary Standards set limits to protect public welfare, including, but not limited to, protection against decreased visibility, damage to animals, crops, vegetation, and buildings. MAQP #0982-13 contains conditions and limitations, which ensure compliance with all applicable air quality standards.

G. Unique Endangered, Fragile, or Limited Environmental Resource

The Montana Natural Heritage Program investigation results state that there are 10 animal species of concern and 1 plant species of concern. Issuance of this permit would have a no increase in potential emissions of non-criteria pollutants to the atmosphere near the facility and would not result in a minor threat to unique, endangered, fragile, or limited environmental resources.

H. Demands on Environmental Resource of Water, Air and Energy

There will be no impacts on the demands for environmental resources of water or air, however there will be a positive impact on the need for energy as the electro-static precipitator will no longer be in operation.

I. Historical and Archaeological Sites

The Department contacted the Montana Historical Society - State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the location of the facility. Because no structures would be expected to be removed or altered as a result of issuance of MAQP #0982-13, no impacts to known historically significant sites would be expected.

J. Cumulative and Secondary Impact

There would be no cumulative and secondary impacts from non-criteria emissions from this project to the vegetation, terrestrial habitats, and air quality.

8. *The following table summarizes the potential economic and social effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				X		Yes
B	Cultural Uniqueness and Diversity				X		Yes
C	Local and State Tax Base and Tax Revenue				X		Yes
D	Agricultural or Industrial Production				X		Yes
E	Human Health				X		Yes
F	Access to and Quality of Recreational and Wilderness Activities				X		Yes
G	Quantity and Distribution of Employment				X		Yes
H	Distribution of Population				X		Yes
I	Demands for Government Services				X		Yes
J	Industrial and Commercial Activity				X		Yes
K	Locally Adopted Environmental Plans and Goals				X		Yes
L	Cumulative and Secondary Impacts				X		Yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores

There will be no impacts to any structures and mores associated with the current permit action.

B. Cultural Uniqueness and Diversity

The project would not alter the cultural uniqueness or diversity of the community surrounding the facility.

C. Local and State Tax Base and Tax Revenue

The changes to Oldcastle's air quality permit would not adversely affect local or state tax bases or revenues.

D. Agricultural or Industrial Production

There will be no impacts to agricultural or industrial production associated with the current permit action.

E. Human Health

This permitting action would not result in a change in the quantity or quality of surface water or ground water; therefore, human health impacts from groundwater or surface water would not occur. In addition, this permitting action does not authorize any increase in potential criteria pollutant emissions. The Department reviewed Oldcastle's proposal to ensure that it complied with all applicable rules, regulations, and standards.

The Clean Air Act, which was last amended in 1990, requires EPA to NAAQS for pollutants considered harmful to public health and the environment (Criteria Pollutants: CO, NOx, Ozone, Lead, PM-10, SOx). The Clean Air Act established two types of NAAQS, Primary and Secondary. Primary Standards set limits to protect public health, including, but not limited to, the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary Standards set limits to protect public welfare, including, but not limited to, protection against decreased visibility, damage to animals, crops, vegetation, and buildings. MAQP #0982-13 contains conditions and limitations, which ensure compliance with all applicable air quality standards.

F. Access to and Quality of Recreational and Wilderness Activities

There will be no impacts to access or quality of recreational and wilderness activities associated with the current permit action because the current permit action would take place within an existing facility's boundaries.

G. Quantity and Distribution of Employment

This project would not result in any impacts to the quantity and distribution of employment at the facility or surrounding community.

H. Distribution of Population

This project would not involve any significant physical or operational change that would affect the location, distribution, density, or growth rate of the human population.

I. Demands for Government Services

The changes to Oldcastle's air quality permit would not result in a need for new or altered governmental services.

J. Industrial and Commercial Activity

Industrial production and commercial activity at the facility or in the neighboring area would not be altered by issuing MAQP #0982-13. The permit action would provide Oldcastle additional operational flexibility which would allow them to operate more efficiently.

K. Locally Adopted Environmental Plans and Goals

There are no locally adopted environmental plans and goals that would be affected by the current permit action.

L. Cumulative and Secondary Impacts

As a result of a minimal increase in non-criteria emissions, there would be no cumulative and secondary impacts from this project to human health.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the removal of an ESP from operation only. MAQP #0982-13 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Quality Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: John P. Proulx
Date: October 23, 2015