West Virginia Department of Environmental Protection
Division of Air Quality

Fact Sheet

For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-00300006-2012**
Application Received: **June 29, 2010**
Plant Identification Number: **03-54-003-00006**
Permittee: **Capitol Cement Corporation**
Facility Name: **Martinsburg**
Mailing Address: **1826 South Queen Street, Martinsburg, WV 25401**

Physical Location:	Martinsburg, Berkeley County, West Virginia
UTM Coordinates:	243.50 km Easting • 4369.00 km Northing • Zone 18
Directions:	Take south Queen Street Exit off of WV State Route 45 at Martinsburg. The facility is 0.5 miles south to the end of Queen Street.

Facility Description

Capitol Cement Corporation (Capitol) owns and operates a cement manufacturing plant, which is characterized by SIC Codes 3241 and 1422. The plant operates a preheater/precalciner (PH/PC) kiln system that uses primary coal and petcoke. The PH/PC kiln produces cement clinker, an intermediary product of cement, which is then ground into finished cement. The nominal capacity of the plant is 2,212,890 short tons (stons) per year of clinker. Capitol uses approximately 292,110 stons of coal annually and fly ash from electric power plants. Capitol also has the ability to burn petroleum hydrocarbon contaminated soils that were generated onsite in the PH/PC cement kiln. The facility has the potential to operate twenty-four~~s~~ (24) hours a day, seven (7) days per week, and fifty-two (52) weeks per year.

Title V Permit Minor Modification – R30-00300006-2006 (MM01)

According to the original September 2009 application for the minor modification of permit R30-00300006-2006, and the Engineering Evaluation for permit R14-026C, the changes associated with this permitting action are summarized as follows:

1. **Existing Kiln No. 7** is no longer being proposed to be part of the plant modernization project. Existing Kiln No. 7 will be decommissioned along with existing Kiln No. 8 and existing Kiln No. 9. The plant will now only operate the new Preheater/Precalciner kiln system.

2. **Addition of an SO_2 semi-dry scrubber system** is now proposed to be constructed and operated as part of the design of the new preheater/precalciner (PH/PC) kiln system. The SO_2 scrubber was required based on a revised engineering study of the expected "worst case" SO_2 emission analysis using actual expulsion test data of the kiln feed while assuming a "worst case" SO_2 emission production scenario that reflected the new PH/PC kiln producing 100 percent low alkali cement. With the addition of the SO_2 scrubber, the Plant will have a SO_2 net emission decrease (-1,356.0 tons per year[1]) and be below the NSR SO_2 significant emission increase threshold of +40 tons per year. With the addition of the SO_2 scrubber, a scrubber reagent, consisting of calcium hydroxide lime (i.e., hydrated lime) will be brought in by truck utilizing plant haul roads. The scrubber reagent will be off loaded from the truck to a new scrubber reagent storage silo which will be equipped with a baghouse to control fugitive particulate emissions. The scrubber reagent will then be pumped to a mixing vessel where it will be mixed with water to create a slurry and then piped to the existing gas conditioning tower where new spray nozzles will inject droplets of the reagent into the kiln exhaust gas stream. These droplets will absorb SO_2 before the water droplets evaporate and form dry particulate matter which will then be removed by the existing new kiln fabric filter baghouse.

3. Only one **new air heater** is proposed that will provide process heat to the two proposed new Finish Mills. No new air heater will be required for the one existing finish mill that will be a part of the new project. In PSD Construction Permit No. R14-026A, each of the three finish mills had their own new dedicated air heater.

4. **Engineering design changes** impacting PM and PM_{10} air emission sources which were made since the submittal of the previous PSD Permit Application, are now represented as part of the Application and reflect the engineering design of the "as built" Plant. Specifically, changes to PM and PM_{10} air emission sources include:

    a. The re-location of the raw material storage silos, new finish mills, and cement storage silo;
    b. Changes to the final location, number, and design characteristics of the previously permitted new and existing dust collectors; and
    c. Changes to some of the previously permitted fugitive PM and PM_{10} air emission sources which include plant haul roads.

    The permittee will be adding a new dry flyash handling and storage system. The dry flyash will serve as an alternate raw material and will provide the necessary silica, iron and alumina required for the production of clinker by the new PH/PC kiln. The dry flyash will replace the use of quarried shale. Use of dry flyash is expected to provide the plant with an environmental benefit since the dry flyash contains significantly less organic matter and pyritic sulfur than is contained in the shale. Use of the dry flyash is expected to result in lower emissions of VOC and SO_2 when the dry flyash is substituted for shale as a raw material.

    As the result of all the changes as reflected in the Application, the Plant will still have a PM and PM_{10} net emission decrease (-342.1 tons per year and -103.1 tons per year, respectively[2]) and will be well below the NSR PM and PM_{10} significant emission increase thresholds of +25 and +15 tons per year, respectively. Table 1-1 of the application provides a summary of the PM and PM_{10} air emission sources which have been modified, are new, or have been eliminated since issuance of PSD Construction Permit No. R14-026A. As shown by Table 1-1 of the application, the engineering changes of the "as built" plant reflect the final engineering design of the Plant compared to the original Application which reflected the preliminary engineering design.

[1] Information previously submitted by the permittee indicated a 7.98 tpy decrease.
[2] Information previously submitted by the permittee indicated decreases of 680.13 tpy and 341.56 tpy for PM and PM_{10}, respectively.

Additionally, it should be noted that in the application for R14-026C, the permittee requested changes to their permitted SO_2 emission limits. However, after discussions with the company it has been decided that those requested changes will not be implemented in R14-026C or R14-026D. During the 180 day shakedown period for the new kiln Capitol will perform testing and will resubmit that request if and when they believe it is still necessary.

According to the application, it is expected that the modernization will result in improved environmental performance of the Plant, in addition to non-environmental benefits.

Title V Permit Minor Modification – R30-00300006-2006 (MM02)

The permittee submitted a Class II Administrative Update combined with Title V Minor Modification Application dated July 2011. However, the DAQ stamp indicates the application was received on October 3, 2011. The purpose of the Class II Administrative Update is to permit the proposed Reburn Hopper System to be constructed at the Plant. The permittee proposed to add a new fugitive source to account for emissions for the addition of a reburn hopper to the preheater/precalciner system. The reburn hopper will be used to reclaim various materials (i.e., brick, sweeper dust, clinker, etc.) back into the kiln system. As a result of the changes described above, the permittee requested that the TSP and PM_{10} emission limits for the Plant and Group 3 Fugitive Sources be revised.

Title V Permit Renewal

The renewal will incorporate (i) the changes associated with the minor modifications MM01 and MM02 (outlined above); (ii) a determination regarding the applicability of 40 C.F.R. Part 64 (CAM) to the facility; (iii) amendments to 40 C.F.R. 63 Subpart LLL; and (iv) multiple updates and revisions necessary at the time of this renewal.

Changes in the permit associated with minor modifications (both MM01 and MM02) and renewal are discussed in Part One and Part Two, respectively, of the Determinations and Justifications section of this Fact Sheet.

Emissions Summary

Table A below summarizes the (i) potential emissions of the facility; (ii) the expected change in the potential emissions covered by the minor modifications (MM01 and MM02); and (iii) the potential emissions after the proposed changes are made and incorporated into the operating permit.

Table A

Pollutant	Current [a] (tpy)	MM01 Net Change (tpy)	MM02 Net Change (tpy)	MM01 & MM02 Net Proposed [d] (tpy)
Carbon Monoxide (CO)	4,493.0	-57.02	0	4,435.98
Nitrogen Oxides (NO_x)	3,704.2	300.89 [b]	0	4,005.09
Particulate Matter (PM_{10})	642.2	-72.36	+14.46	584.3
Total Particulate Matter (TSP)	992.1	-98.47	+25.17	918.8
Sulfur Dioxide (SO_2)	5,702.6	5,096.21 [c] (without scrubber)	-3,366.0	7,432.81 (without scrubber)
		2,171.0 (with scrubber)	-3,366.0[e]	4,507.6 (with scrubber)

Pollutant	Current [a] (tpy)	MM01 Net Change (tpy)	MM02 Net Change (tpy)	MM01 & MM02 Net Proposed [d] (tpy)
Volatile Organic Compounds (VOC)	159.4	-3.44	0	155.96
Lead (Pb)	2.7	-1.9	-0.72	0.08

a *The current PTEs are the allowables (i.e., permit limits in condition 5.1.2. of current Title V permit) since there were no controls on the former (and now decommissioned) equipment.*

b *This NOx PTE value is transcribed from Attachment S of the application for this permitting action. However, according to the PSD Netting Analysis Summary included with the application (Section 3, Table 3-2), the net change in actual emissions is expected to decrease by 2,135.05 TPY. Therefore, according to the application, this NO_x change does not trigger PSD permitting requirements*

c *This SO_2 PTE increase excludes the new scrubber control device, and is based upon recent testing performed by the permittee.*

d *The potential emissions due to the minor modifications also represent the potential emissions associated with the renewal, and are also provided in the renewal application.*

e *The MM02 net change in SO_2 is calculated from information supplied by the permittee in comments on the pre-draft permit. According to the comment #45, the MM01 and MM02 net change for SO_2 is a decrease of 1,195.0 tpy. The same comment states that the proposed SO_2 PTE is 4,507.6 tpy (which is also the facility's limit).*

Potential emissions of HAPs in the renewal application are 1.02 TPY of Fluorides. No other HAPs were listed. The permittee also provided the potential emissions of CO_2 as 1,921,943.00 TPY in the renewal application.

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 4,435.98 tpy of CO; 4,005.09 tpy of NO_x; 584.3 tpy of PM_{10}; 4,507.6 tpy of SO_2; and 155.96 tpy of VOC. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Capitol Cement Corporation is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR13	Construction permit requirements
	45CSR14	PSD permitting requirements
	45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40 C.F.R. Part 60
	45CSR30	Operating permit requirements
	45CSR34	Emission Standards for HAPs
	40 C.F.R. 60 Subpart Y	NSPS Coal Preparation and Processing Plants
	40 C.F.R. 60 Subpart OOO	NSPS Nonmetallic Mineral Processing Plants
	40 C.F.R. 63 Subpart LLL	NESHAPs MACT Portland Cement Mfg.
State Only:	45CSR4	No objectionable odors

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit *(if any)*
R14-026A	October 12, 2005	Superseded by R14-026B
R14-026B	October 11, 2006	Superseded by R14-026C
R14-026C	January 27, 2010	Superseded by R14-026D
R14-026D	March 26, 2010	Superseded by R14-026E
R14-026E	June 24, 2011	Superseded by R14-026F
R14-026F	August 17, 2011	Superseded by R14-026G
R14-026G	November 9, 2011	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

The following discussion is divided into two parts in order to distinguish and account for (1) the changes associated with the minor modification MM01 and MM02; and (2) the changes associated with the renewal of the Title V permit. The language “current” or “current permit” refer to R30-00300006-2006, unless otherwise specified. Part Part of MM01 required the deleting of current permit Section 4.0 in its entirety, which would have “moved up” current Section 5.0 to become Section 4.0.

PART ONE – MINOR MODIFICATIONS MM01 AND MM02 OF THE TITLE V PERMIT R30-00300006-2006

Minor Modification MM01

The permittee submitted a Title V Minor Modification (MM01) Revision application (dated September 2009, and received by DAQ on 9/08/2009) to include the requirements and changes associated with permit application R14-026C. Also to be accounted for was the decommissioning of Kilns #7, #8, and #9. Other changes encompass applicable requirements of NSPS Subparts Y and OOO.

I. **Permits R14-026C and R14-026D**

Until this permitting action, the Title V permit contained the requirements of R14-026A (issued on October 12, 2005). Permit R14-026A has been superseded by Permit R14-026B (issued on October 11, 2006). Revision R14-026C, which precipitated this permitting action, was issued on January 27, 2010. The following Table B sets forth the changes in the Title V permit in order to incorporate the requirements of R14-026C, with one exception. On March 26, 2010, DAQ issued revision R14-026D to address a Class I Administrative Amendment to decrease the PH/PC kiln opacity limit from 20% to 10% in condition A.15., which will be further discussed herein. This is the only difference between R14-026C and R14-026D. Where necessary, cross-referencing among permit conditions are changed to reflect the numbering within

the renewal permit, and each instance will not be discussed below. Note that some of the changes discussed in Table B below are affected by subsequent changes in permit R14-026E, which are discussed in Part Two, Section VI, of this Fact Sheet. Such requirements are noted with an asterisk (*) in Table B.

Table B

R14-026D	Title V Cond.	Discussion of Changes
A.1.	4.1.1.	The clinker production limit was revised, and the word "short" was added to specify the type of tons.
A.2.	4.1.2.	A row was added for PM2.5, and all other pollutant limits were revised.*
A.3.	4.1.3.	Inserted into renewal permit.
A.4.	4.1.4.	Inserted into renewal permit.
A.5.	4.1.9.	a. The emission limit for the Secondary Crusher Dust Collector (CD02.01) was revised. b. The number "1" was stricken at the end of the emission unit description of the New Crushing System D\C (CD37.04).* c. The emission point descriptions of CD37.06 and CD38.01 were revised. d. The emission limits were revised for multiple fugitive emission sources. e. Several fugitive emission sources were added to the table. f. Several point and fugitive emission sources and their limits were stricken in the table since they are no longer listed in the underlying permit condition. g. The point source table column headings were revised to match the underlying permit. h. The combined limits at the end of the condition were modified.*
A.6.	4.3.2.	Inserted into renewal permit.
A.7.	4.1.13.	a. Several emission sources were added to the table.* b. Several CD Descriptions were revised. c. Several CDs and their limits were stricken in the table since they are no longer listed in the underlying permit condition. d. Several CDs and their limits were stricken and relocated within the table. e. Several fugitive emission source limits were revised.* f. Multiple CDs and their fugitive limits were stricken in the table since they are no longer listed in the underlying permit condition. g. The combined limits at the end of the condition were modified.* h. Added "45CSR§7-4.1." to the citation of authority since this is also an applicable requirement which is streamlined by the more stringent requirement of the underlying permit.
None	4.1.14.	This condition is stricken and marked "Reserved" since the underlying permit no longer contains the requirement.
A.8.	4.1.15.	Revised the citation of authority.
A.9.	4.1.16.	Revised the citation of authority.
A.10.	4.1.17.	Revised the condition language and the citation of authority.
A.11.	4.1.18.	Revised the citation of authority.
A.11.(a)	4.1.18.(a)	Revised the condition language.
A.11.(b)	4.1.18.(b)	Revised the condition language.
A.11.(c)	4.1.18.(c)	Revised the condition language.
A.11.(e)	4.1.18.(e)	Revised the condition language.
A.11.(f)	4.1.18.(f)	Revised the condition language.
A.11.(g)	4.1.18.(g)	Revised the condition language.
A.12.	4.1.20.	This condition is stricken since it is no longer in the underlying permit, and becomes a convenient location to insert this new underlying requirement.
A.13.	4.1.19.	Revised the condition language and changed the limit.
A.14.	4.1.21.	Revised the condition language and the citation of authority.

R14-026D	Title V Cond.	Discussion of Changes
A.15.	4.1.22.	a. Revised the condition language and the citation of authority. b. Revised the annual NO_x limit. c. Revised the annual VOC limit. d. Revised the annual SO_2 limit. e. Revised the annual and hourly TSP limits. f. Revised the annual and hourly PM_{10} limits. g. Revised the Pb limit. h. Revised Averaging Times where appropriate to match underlying permit language. i. Revised Source descriptions where appropriate to match underlying permit language. j. Revised the PH/PC kiln system opacity limit from 20% to 10%. The change is made due to an EPA determination that 10% is the appropriate limit for a combined kiln/clinker cooler stack under 40 C.F.R. 63 Subpart LLL.
None	4.1.23.	This condition is stricken and marked "Reserved" since the underlying permit no longer contains the requirement.
A.16.	4.1.24.	a. Revised the description of CD42.04. b. Strikeout two CDs since no longer contained in underlying permit. c. Revised the descriptions of CD42.02, CD42.03, and CD43.02. d. Added CD42.01*, CD42.05, CD42.06, and CD42.07. e. The combined limits at the end of the condition were modified.* f. Added "45CSR§7-4.1." to the citation of authority since this is also an applicable requirement which is streamlined by the more stringent requirement of the underlying permit.
A.17.	4.1.25.	Revised the condition language* and the citation of authority.
A.18.	4.1.39.	a. Revised the point source CD descriptions. b. Added a new row for CD43.13. c. Deleted the Group 4 fugitive source emission limits table. d. The combined limits for TSP and PM_{10} at the end of the condition were modified.* e. Revised the citation of authority.
A.19.	4.3.12.	The Title V condition incorrectly referred to 4.1.35. (An SO2 compliance requirement). This was corrected to refer to 4.1.39. The citation of authority was also revised.
A.20.	4.1.40.	a. There are no Group 5 point sources in the underlying permit; therefore, these are stricken in the Title V. b. Multiple fugitive sources have the description revised; emission limits changed; or new sources have been added to the table. c. The combined limits for TSP and PM10 at the end of the condition were modified. d. Revised the citation of authority. Added "45CSR§7-4.1." to the citation of authority since this is also an applicable requirement which is streamlined by the more stringent requirement of the underlying permit.
A.21.	4.3.13.	The citation of authority was revised.
A.22.	4.1.43.	a. The point source table was revised to reflect the table in the underlying permit. b. The fugitive source table was revised to reflect the table in the underlying permit. c. The combined limits for TSP and PM_{10} at the end of the condition were modified.* d. Revised the citation of authority. Added "45CSR§7-4.1." to the citation of authority since this is also an applicable requirement which is streamlined by the more stringent requirement of the underlying permit.
A.23.	4.3.16.	The citation of authority was revised.

R14-026D	Title V Cond.	Discussion of Changes
A.24.	4.1.44.	a. Revised the description of the mill in the first sentence of the condition. b. Revised all of the emission limits. c. Revised the citation of authority.
None	4.1.45.	This condition is stricken and marked "Reserved" since the underlying permit no longer contains the requirement.
A.25.	4.1.46.	Revised the Finish Mill descriptions and the MDHI limit. Corrected the language "Finish Mills 1 and 1 air heater" in the second sentence.
A.26.	4.1.47.	a. Revised information in the table to match underlying permit.* b. Eliminated requirements for fugitive sources. c. The combined limits for TSP and PM_{10} at the end of the condition were modified. The language was also modified.* d. Revised the citation of authority. Added "45CSR§7-4.1." to the citation of authority since this is also an applicable requirement which is streamlined by the more stringent requirement of the underlying permit.
A.27.	4.3.17.	The citation of authority was revised.
A.28.	4.1.48.	a. Revised the information contained in the point source table.* b. Revised the information contained in the fugitive source table. Rather than editing all of the various sources already contained in the table, all entries in the table were stricken, and all of the sources listed in the underlying permit were added.* One correction was made in the fugitive source table. The underlying permit lists EP42.06.01 twice (for both unpaved and paved Lime Deliveries). However, according to Attachment S of the application, the Lime Deliveries (paved) should be EP42.06.02. Considering that an unpaved road and a paved road would likely not be the same emission source, and that the underlying permit language appears to have been a copy-and-paste editing error, this correction has been made in the proposed permit. c. The combined limits for TSP and PM_{10} at the end of the condition were modified.* d. Revised the citation of authority. Added "45CSR§7-4.1." to the citation of authority since this is also an applicable requirement which is streamlined by the more stringent requirement of the underlying permit.
A.29.	4.3.18.	The citation of authority was revised.
B.1.	4.1.12.	Added this underlying requirement regarding NSPS Subpart OOO to the citation of authority. Added the emission groups (i.e., grouping of Em. Unit IDs) to the citation of authority.
B.2.	4.1.26. through 4.1.28.	This underlying requirement sets out several applicable requirements from 45CSR5. The Title V conditions also set forth 45CSR5 requirements. However, the Title V conditions must be updated to cite B.2. of the current permit R14-026C.
B.3.	3.1.10.	Since the Title V condition pertains to 45CSR§7-3.1., it should cite B.3. The citation of authority has been revised. Note that there is no condition B.4. in permit R14-026C.
	3.1.15.	Since the Title V condition pertains to 45CSR§7-5.1., it should cite B.3. The citation of authority has been revised.
	3.1.16.	Since the Title V condition pertains to 45CSR§7-5.2., it should cite B.3. The citation of authority has been revised.
	4.1.33.	This underlying requirement sets out several applicable requirements from 45CSR7. The Title V condition also sets forth 45CSR7 requirements. However, the Title V condition incorrectly cites B.2. of the PSD permit (which concerns 45CSR5) rather than B.4. of the then-current PSD permit R14-026A. The citation is corrected in the Title V to

R14-026D	Title V Cond.	Discussion of Changes
		B.3.
None	4.3.10.	This Title V condition formerly set forth condition B.14. of superseded permit R14-026B. However, this requirement is not contained in the current permit R14-026C; therefore, it is stricken and reserved in the Title V.
B.8.	4.1.10.	This underlying condition sets forth certain applicable NSPS Subpart OOO requirements; thus, the underlying requirement is added to the citation in Title V condition 4.1.10. since it does not already cite B.8. Note that B.8. will not be cited in Title V condition 4.3.4. since §60.675(b) is not specifically mentioned in R14-026C, condition B.8. B.1. of the underlying permit does reference the NSPS; therefore, it will be cited at condition 4.3.4.
B.8.	4.1.11.	Add the emission groups (i.e., grouping of Em. Unit IDs) to the citation of authority.
B.10.	4.1.5.	Added the emission groups (i.e., grouping of Em. Unit IDs) to the citation of authority.
B.11.	4.2.4.	The language THC is added to the first sentence to match the underlying permit.
B.12.	4.2.5.	Revised the condition language to eliminate kiln #7 and the clinker coolers.
B.14.	4.3.7.	a. Revised the condition language. b. Revised the citation of authority.
B.15.	4.4.2.	a. Revised the condition language to only reference conditions 4.1.1. (R14-026C, A.1.) and 4.1.19. (R14-026C, A.13.). Also revised to mention the new PH/PC kiln. b. Revised the citation of authority.
B.16.	4.4.3.	Revised the citation of authority.
B.17.	4.3.11.	a. Revised the condition language to match underlying permit. b. Revised the citation of authority.

II. **Revisions due to Decommissioning of Kilns No. 7, No. 8, and No. 9**

Multiple permit conditions apply to existing Kilns No. 7, No. 8, and No. 9, which are identified by Emission Unit IDs EP10.01, EP11.01, and EP12.01, respectively. Also associated with these Kilns are all the equipment contained in Groups 006, 007, and 012, respectively. Further, Clinker Cooler #8 (EP11.02) and #9 (EP12.02), Dust Scoop (EP13.08), and #5, #6, #7, #8, #9, and #10 Raw Mills (EP09.01) of source group 009, 010, 011, and 013 and emission point ID(s) CD11.02, CD13.08, Stack 007, Stack 008, Stack 010, and Stack 011 are removed from the permit section 4.0. According to the application, these kilns are being decommissioned; therefore, the emission units and associated control devices will be removed from the permit (including subsection 1.1.) and the requirements can no longer be applied to the decommissioned emission units. Table C below sets out the affected Title V permit conditions, several of which are already affected by the changes discussed in Sections I and VIII of this Fact Sheet.

Table C

Current Condition	Renewal Condition	Discussion of Changes
3.2.12.	3.2.12.	Removed references to the Kilns #7, #8, and #9.
3.5.11.(9)(i)	3.5.11.(9)(i)	This condition is modified to remove the reference to stricken Sections 4.1.7. and 4.1.8.
4.0 (Heading)	4.0	Stricken and replace with current section 5.0.
4.1.x.	4.1.x.	Replaced with contents of 5.1.x.
4.2.x.	4.2.x.	Replaced with contents of 5.2.x.
4.3.x.	4.3.x.	Replaced with contents of 5.3.x.
4.4.x.	4.4.x.	Replaced with contents of 5.4.x.
4.5.x.	4.5.x.	Replaced with contents of 5.5.x.
4.6.1.	4.6.x.	Replaced with compliance plans as appropriate.

Current Condition	Renewal Condition	Discussion of Changes
5.0 (Heading)	4.0	The references to Kiln #7, Clinker Cooler #7, and associated equipment and stacks are removed. The heading is revised to describe the new PH/PC kiln and related equipment.
5.1.1.	4.1.1.	The citation of authority if revised to remove reference to Kiln #7.
5.1.14.	4.1.14.	The condition exclusively applies to Kiln #7; therefore the condition is stricken and marked "Reserved."
5.1.17.	4.1.17.	The condition mentions Kiln #7. The language is modified to match the underlying permit requirements as already discussed in Section I. of this Fact Sheet.
5.1.18.	4.1.18.	The citation of authority if revised to remove reference to Kiln #7.
5.1.20.	4.1.20.	The condition exclusively applies to Kiln #7; therefore the condition is stricken and replaced with A.12. of R14-026C (see Table B).
5.1.21.	4.1.21.	The language is modified to match the underlying permit requirements as already discussed in Section I. of this Fact Sheet.
5.1.23.	4.1.23.	The condition exclusively applies to Kiln #7; therefore the condition is stricken and marked "Reserved."
5.1.24.	4.1.24.	CD10.01 and CD10.02 are stricken as already discussed in Section I. of this Fact Sheet.
5.1.31.	4.1.31.	The citation of authority language "**45CSR13, R13-1674C, Kiln #7 (EP10.01),**" is stricken since permit R13-1674C does not set forth any requirement of 45CSR10, and Kiln #7 is decommissioned.
5.1.33.	4.1.33.	Strike out Kiln #7 and its limits in the table. The citation of authority if revised to remove reference to Kiln #7.
5.1.35.	4.1.35.	EP10.01 (i.e., Kiln #7) will be stricken from the citation of authority.
5.1.36.	4.1.36.	The citation of authority if revised to remove reference to Kiln #7.
5.1.37.	4.1.37.	The condition exclusively applies to Kiln #7 and its clinker cooler #7; therefore the condition is stricken and marked "Reserved."
5.1.38.	4.1.38.	This condition will be stricken in its entirety since the underlying permits are no longer applicable. Refer to the detailed discussion in Section VII of this Fact Sheet.
5.2.2.	4.2.2.	EP10.01 (i.e., Kiln #7) will be stricken from the citation of authority.
5.2.5.	4.2.5.	The language is modified to match the underlying permit requirements as already discussed in Section I. of this Fact Sheet.
5.2.7.	4.2.7.	Permit R14-026C was added to the citation of authority since it only mentioned "B.5." A review of the conditions B.5. in both underlying permits clarified which permit should be cited. Kiln #7 was stricken from the citation of authority.
5.3.5.	4.3.5.	The citation of authority if revised to remove reference to Kiln #7.
5.3.6.	4.3.6.	The citation of authority if revised to remove reference to Kiln #7.
5.3.7.	4.3.7.	The language is modified to match the underlying permit requirements as already discussed in Section I. of this Fact Sheet. The citation of authority if revised to remove reference to Kiln #7.
5.3.8.	4.3.8.	This condition is stricken in its entirety and "Reserved" since it exclusively applies to Kiln #7.
5.3.10.	4.3.10.	This condition is stricken and "Reserved" as already discussed in Section I. of this Fact Sheet.
5.3.11.	4.3.11.	The citation of authority if revised to remove reference to Kiln #7.
5.4.8.	4.4.8.	The citation of authority if revised to remove reference to Kiln #7.
5.4.9.	4.4.9.	The citation of authority if revised to remove reference to Kiln #7.
5.5.5.	4.5.5.	This condition is stricken and "Reserved" as already discussed in Section II. of this Fact Sheet.
5.5.6.	4.5.6.	The citation of authority if revised to remove reference to Kiln #7.
Appendix A	No change	The existing 45CSR10 Monitoring Plan for kilns #7, #8, and #9 is stricken from the permit since these emission units are decommissioned. A plan for

Current Condition	Renewal Condition	Discussion of Changes
		the PH/PC kiln was not submitted with the application. This writer asked the permittee why a plan was not submitted. The permittee responded (3/9/2010 email) that a plan will be submitted no later than April 2, 2010. This writer received a 45CSR10 monitoring plan for the PH/PC kiln on 3/22/10, and it has been inserted in the Title V as Appendix A.

III. **Revisions to Emission Units Table**

The Emission Units table (proposed permit subsection 1.1.) has been revised to reflect new/proposed equipment; decommissioned equipment; and engineering design changes; all of which are consistent with information presented primarily in the application (i.e., Attachment S), and also as ascertainable in permit R14-026C. Not a few row entries are relocated within the table to match Attachment S of the application. Thus, simply because a row of information is stricken does not necessarily mean it is not in the proposed permit. That information may be relocated within the table. The following is a list of changes within the table that require some explanation or additional details to clarify the changes.

a. EP39.07.01 (under EU2 section of table) has been added as a new row since it is entirely new information at its location within the table. This approach is unlike that of the permittee's suggested language, which essentially copied the existing row for EP39.07 (Pyrite Silo), placed the copy after EP39.04.01, and revised parts of the row contents. The existing row for the Pyrite Silo has been stricken.
b. CD39.01 (under EU2 section of table) has been stricken in its current row, but relocated within the table to follow EP39.08.01. This method of relocating the control device is used to maintain clarity and document the change in order of equipment within the table. This approach is unlike that of the permittee's suggested language, which relocated CD39.01 to the new position, and then apparently replaced its former position in the table with new CD39.04. The change in the permit also accounts for the revised emission unit description.
c. EP39.07.02, EP39.07.03, EP39.08.02, and EP39.08.03 (under EU2 section of table) have been added as a new row since they are entirely new information at their locations within the table. This approach is unlike that of the permittee's suggested language, which essentially copied the existing rows for Pyrite Silo Feeder (PSF), Conveyor (C6), Sand Silo (SS), and Sand Silo Feeder (SSF) and relocated and edited them under EP39.02.02. The existing rows for PSF, C6, SS, and SSF have been stricken.
d. EP40.03 Surge Pile (SP3) is relocated to follow CD39.05 (under EU2 section of table). The description is also revised to match the language submitted in Attachment S of the application. The TPY capacity is not written since the emission point is a split, not the actual pile itself.
e. EP40.01 Split (SPT4), Hopper (HP1), and EP40.02 Bucket Elevator (BE2) have been stricken in their current rows, but relocated within the table to follow EP40.01.01. This method of relocating the control device is used to maintain clarity and document the change in order within the table. This approach is unlike that of the permittee's suggested language, which relocated the emission units and modified most of the information within their respective rows.
f. EP40.04.02 Raw Mill (RM1) is a new row before Conveyor (C8) and EP40.04 RM1 is stricken. This method of relocating the control device is used to maintain clarity and document the change in order of equipment within the table.
g. EP40.05 Raw Mill Conveying Equipment is stricken in its current position and relocated above CD40.05. The language additions have been made as well in the new row.
h. EP42.03 was stricken in its current position, and relocated above CD42.03 to match the permittee's suggested language in Attachment S of the application. The language of the new row was also modified per Attachment S.
i. EP42.04 Raw Mill Kiln is stricken in its current location (Pyroprocessing EU3) and relocated to follow CD42.03. The language of the new row was also modified per Attachment S.
j. CD42.04 is stricken in its current location (Pyroprocessing EU3) and relocated to follow EP41.03.01. Coal Mill. The language of the new row was also modified per Attachment S.
k. CD43.03 is stricken in its current location (Clinker Handling and Storage EU4) and relocated to follow EP43.05. The language of the new row was also modified per Attachment S.
l. CD43.04 is stricken in its current location (Clinker Handling and Storage EU4) and relocated to follow EP43.04. The language of the new row was also modified per Attachment S.

m. CD43.06 is stricken in its current location (Clinker Handling and Storage EU4) and relocated to follow EP43.06.03. The language of the new row was also modified per Attachment S.
n. CD43.08 is stricken in its current location (Clinker Handling and Storage EU4) and relocated to follow EP43.08. The language of the new row was also modified per Attachment S.
o. CD43.09 is stricken in its current location (Clinker Handling and Storage EU4) and relocated to follow EP43.09. The language of the new row was also modified per Attachment S.
p. EP41.01 CSH Fuel Bins Feeders (CSHF) is stricken in its current location (Fuel Handling EU5) and relocated to follow EP41.01.02. The Em. Unit ID is changed from EP41.01 to EP41.01.03, in addition to changing the other details in its row to reflect Attachment S.
q. EP43.14 is stricken in its current location (Clinker Handling and Storage EU4) and relocated to be the first emission unit under Cement Production EU6. The language of the new row was also modified per Attachment S.
r. EP43.15 is stricken in its current location (Clinker Handling and Storage EU4) and relocated to follow EP43.14 (Cement Production EU6). The language of the new row was also modified per Attachment S.
s. EP43.16 is stricken in its current location (Clinker Handling and Storage EU4) and relocated to follow CD43.14 (Cement Production EU6). The language of the new row was also modified per Attachment S.
t. CD44.01 is stricken in its current location (Cement Production EU6) and relocated to follow EP44.01 LACB to FM2C (Cement Production EU6). The language of the new row was also modified per Attachment S.
u. CD44.02 is stricken in its current location (Cement Production EU6) and relocated to follow EP44.02. The language of the new row was also modified per Attachment S.
v. CD44.07 is stricken in its current location (Cement Production EU6) and relocated to follow EP44.07.03. The language of the new row was also modified per Attachment S.
w. EP44.08 Bin in Finish Mill 11 (B2FM11) is stricken in its current location (Cement Production EU6) and relocated to follow EP44.08.01. as EP44.08.02. The language of the new row was also modified per Attachment S.
x. EP44.08 Conveyor in Finish Mill 11 (C14) is stricken in its current location (Cement Production EU6) and relocated to follow EP44.08.02. as EP44.08.03. The language of the new row was also modified per Attachment S.
y. CD44.09 is stricken in its current location (Cement Production EU6) and relocated to follow EP44.09. The language of the new row was also modified per Attachment S.
z. EP44.13 is stricken in its current location (Cement Production EU6) and relocated to follow CD44.09. The language of the new row was also modified per Attachment S.
aa. EP44.14 is stricken in its current location (Cement Production EU6) and relocated to follow CD44.13. The language of the new row was also modified per Attachment S.
bb. CD44.10 is stricken in its current location (Cement Production EU6) and relocated to follow EP44.10.03. The language of the new row was also modified per Attachment S.
cc. EP44.12 is stricken in its current location (Cement Production EU6) and relocated to follow CD44.11. The language of the new row was also modified per Attachment S.
dd. EP44.15 is stricken in its current location (Cement Production EU6) and relocated to follow CD44.12. The language of the new row was also modified per Attachment S.
ee. EP44.16 is stricken in its current location (Cement Production EU6) and relocated to follow CD44.15. The language of the new row was also modified per Attachment S.
ff. CD19.02 is stricken in its current location (Cement Production EU6) and relocated to follow EP19.01Pb. The language of the new row was also modified per Attachment S.
gg. CD45.01 is stricken in its current location (Shipping EU7) and relocated to follow EP45.01. The language of the new row was also modified per Attachment S.
hh. EP21.05 is stricken in its current location (Shipping EU7) and relocated to follow CD45.14. The language of the new row was also modified per Attachment S.
ii. CD21.05 is stricken in its current location (Shipping EU7) and relocated to follow CD21.05. The language of the new row was also modified per Attachment S.
jj. EP21.06 is stricken in its current location (Shipping EU7) and relocated to follow CD21.05. The language of the new row was also modified per Attachment S.
kk. CD21.06 is stricken in its current location (Shipping EU7) and relocated to follow EP21.06. The language of the new row was also modified per Attachment S.
ll. EP21.07 is stricken in its current location (Shipping EU7) and relocated to follow CD21.06. The language of the new row was also modified per Attachment S.

mm. CD21.07 is stricken in its current location (Shipping EU7) and relocated to follow EP21.07. The language of the new row was also modified per Attachment S.

nn. EP21.08 is stricken in its current location (Shipping EU7) and relocated to follow CD21.07. The language of the new row was also modified per Attachment S.

oo. CD21.08 is stricken in its current location (Shipping EU7) and relocated to follow EP21.08. The language of the new row was also modified per Attachment S.

pp. EP48.01 is in its current location (Shipping EU7) and relocated to follow CD20.06. The language of the new row was also modified per Attachment S.

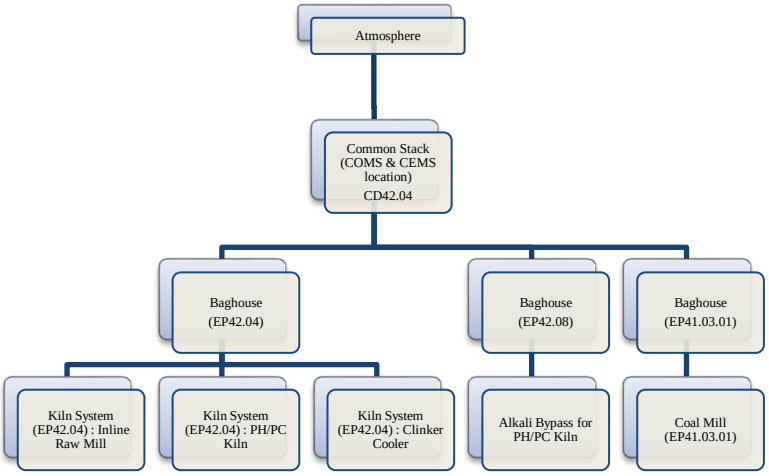
qq. CD48.01 is stricken in its current location (Shipping EU7) and relocated to follow EP48.01. The language of the new row was also modified per Attachment S.

IV. Revisions based upon Application Attachment S

Permittees are required to submit suggested permit language as part of a minor modification application (*cf.* 45CSR§30-6.5.a.2.B.). The permittee's suggested permit language is contained in Attachment S of the application. Many changes have already been discussed in Sections II. and III. of this Fact Sheet. Table D below sets forth the remaining changes in the proposed permit based upon the permittee's suggested language. Note that a few of the suggested changes contained in Attachment S will not be included in the proposed Title V modification (either in their entirety, or exactly how the permittee wrote the suggested language), and justification is provided below for such determinations or deviations from the suggested language. Note that the "Condition" is that of the current permit, and not necessarily that in the renewal permit since numbering may have changed.

Table D

Condition	Discussion of Changes
3.1.10.	Revised applicable emission units within the citation of authority. In particular, EU2 was added since EP39.01 was listed under Raw Material Preparation EU2 in subsection 1.1. EP39.01 no longer exists alone, but has been modified as EP39.01.01 and EP39.01.02 in the proposed permit.
3.1.11.	Same rationale as for 3.1.10.
3.1.12.	Revised applicable emission units within the citation of authority.
3.1.13.	This condition stricken in its entirety since all of the Groups are decommissioned and stricken from permit subsection 1.1. The condition would normally be "Reserved" to avoid renumbering of subsequent conditions and revising any cross-references within the permit. Rather than reserving it, this condition number will now identify the standards of 45CSR42, which is discussed in Part Two, III.d. of this Fact Sheet.
3.1.19.	Revised applicable emission units within the citation of authority.
3.1.20.	Revised applicable emission units within the citation of authority.
3.2.1.(3)	The permittee suggested adding the new PH/PC kiln system and remove the in-line kiln raw mill from the language. However, the rule language will be maintained, and applicability of the requirements will be given by the listing of emission groups in the citation of authority.
3.2.2., 3.2.2.(1)	The proposed first paragraph generally explains the flow of emissions from the emission unit to the respective control devices and finally how emissions from each control device are vented to a common stack in which emissions and opacity are continuously monitored. The proposed language is not required by or derived from MACT Subpart LLL; therefore, it would be incorrect to add the language and not have a legitimate corresponding authority for its insertion. To make the proposed language legitimate and enforceable, 45CSR§30-12.7 has been cited, which provides that "*The Secretary may incorporate any provision into a permit which has been proposed by or agreed to by a permit applicant and which does not conflict with any applicable requirement. All such provisions shall be enforceable after issuance of a final permit.*" Also, the permittee proposed adding the language "the main stack after" to 3.2.2.(1) since this is where the COMS is located. This condition has been revised due to the MACT Subpart LLL amendments (discussed below in Part II of this Fact Sheet). Thus it is unnecessary to add the language to 3.2.2.(1). Finally, the applicable emission units within the citation of authority have been revised.
3.2.3.	Below is a process flow diagram (based upon the permittee's description in Attachment S, condition 3.2.2., and technical correspondence received on 3/9/2010) showing the

Condition	Discussion of Changes
	emission units, the control devices, and how the emissions from the control devices are combined to emit through a common stack to atmosphere.  At the end of this condition, the permittee suggested the following language: The 20 percent opacity limit is applicable since the main stack consists of exhaust gas from the PH/PC kiln, inline raw mill, clinker cooler, alkali bypass, and coal mill. The 20% opacity limit is from 40 C.F.R. §63.1350(c)(3), and applies to a kiln or in-line kiln/raw mill. The 10% opacity limit is from 40 C.F.R. §63.1350(d)(3), and applies to a clinker cooler. Since there are two opacity limits (10% and 20% at the same stack) the more stringent of the two applies. The permittee will have to ensure compliance with the 10% opacity limit for the common stack regardless of the 20% opacity limit on the kiln. This determination is consistent with the U.S. EPA's determination in the 2/16/2010 email from Ms. Amy Caprio (U.S. EPA) to Mr. Steven Pursley (WV DAQ). The U.S. EPA determination mirrors another determination for the Essroc Portland cement facility in San Juan, Puerto Rico (*cf.* Determination Detail from M050026 3/24/05). Therefore, the opacity limit for the common stack will not be increased from 10% to 20% as suggested by the permittee. Streamlining language has also been added at the end of this permit condition. The permittee also suggested capitalizing the word "appendix" in 3.2.3.(2)(i). The lower-case word is direct from MACT Subpart LLL, and therefore, will be retained in the proposed permit. However, this condition is based on language that is not in the amended MACT Subpart LLL. Thus, this condition is stricken and reserved.
3.2.4.	Revised applicable emission units within the citation of authority.
3.2.5.(1) 3.2.5.(2)	Added the coal mill. Revised applicable emission units within the citation of authority.
3.2.6.	The permittee suggested modifying the condition language to be specific to the PH/PC kiln. Rather than revising the condition language (which is verbatim from 40 C.F.R. 63 Subpart LLL), keeping EP42.04 in the citation of authority will specify the applicability of this MACT requirement to the Kiln System – Inline Raw Mill/PH/PC Kiln/Clinker Cooler. This way allows for both retention of the rule language (which is desirable) and specification of its applicability to the Kiln System.
3.2.7.	Revised applicable emission units within the citation of authority.
3.2.11.	Revised applicable emission units within the citation of authority.
3.2.12.	Removed the coal and limestone feed stockpile mentioned in the first paragraph. The Kilns #7, #8, and #9 were already stricken as discussed in Section II. of this Fact Sheet.
3.2.13.	The permittee suggests changing "visual emission observations" to "inspections" in the first sentence. The current language requires the permittee to perform weekly VE

Condition	Discussion of Changes
	observations on all dust collectors (i.e., baghouses); that is, to view the opacity emitted from these control devices. The suggested language "inspections" does not necessarily mean or include VE observations. The permittee commented[1] on the pre-draft version of the permit, and stated the following: > Capitol asks for reconsideration of a request to replace "visible emission observation" with "inspection". WVDEP has addressed the original request in the fact sheet by suggesting that this is a significant change to the existing monitoring, and, therefore, would not qualify as a minor modification. Capitol believes that the wording change is a clarification of WVDEP original intent. This position is supported by the fact that there is no procedure (i.e., Method 22, Method 9, etc.) for conducting the observations specified by WV DEP as there are other places, and Condition 3.2.13 later mentions dust collector inspections without further reference to VE observations. Specifically, the Condition says, "Records shall state the date and time of each dust collector ***inspection***, the ***inspection*** results, and corrective action taken, if any" (emphasis added). The fact that condition 3.2.13. does not specify Method 22 or Method 9 is an argument from silence; therefore, it is not sufficient justification for changing the language. While it is true that other conditions in the permit do specify Method 22 and/or Method 9 for visible emissions observations, the argument that "inspections" cannot mean to employ Method 22 and/or Method 9 (and are therefore not the same as VE observations) is not consistently upheld by other conditions in the permit. For example, condition 4.3.2. specifies monthly Method 22 tests and describes them as "inspections" twice and an "inspection" once. Similarly, condition 4.3.12. describes the monthly Method 22 tests as "inspections". Other conditions with consistent language are 4.3.13., 4.3.16., 4.3.17., and 4.3.18. In summary, the permittee's argument fails to justify the requested change. No change will be made in the draft permit condition based upon the permittee's comment on the pre-draft permit. The last sentence (*i.e.*, 5-year record retention requirement) is stricken since it is redundant with existing condition 3.4.2.
3.3.2.	Revised applicable emission units within the citation of authority.
3.3.3.(1)(iv) 3.3.3.(3) 3.3.3.(3)(ii)	The permittee suggested modifying the condition language by eliminating references to "in-line kiln/raw mill." Rather than revising the condition language (which is verbatim from 40 C.F.R. 63 Subpart LLL), the citation of authority will specify the applicability of this MACT requirement. This way allows for both retention of the rule language (which is desirable) and specification of its applicability. The condition language will not be changed as requested in the proposed permit. The citation of authority will be revised as suggested.
3.3.4.	Same as condition 3.3.3.
3.3.5.	Revised applicable emission units within the citation of authority.
3.7.2.	Strike out 40 C.F.R. 60 Subpart Y. Strike out 40 C.F.R. 60 Subpart OOO. Corrected the Title of NSPS Subpart UUU.
5.1.5. 5.1.5.(1) for MM; 4.1.5 for Renewal	The permittee suggested modifying the condition language by eliminating references to "in-line kiln/raw mill." Rather than revising the condition language (which is verbatim from 40 C.F.R. 63 Subpart LLL), the citation of authority will specify the applicability of this MACT requirement. This way allows for both retention of the rule language (which is desirable) and specification of its applicability. The condition language will not be changed as requested in the proposed permit. The citation of authority will be revised to specify applicability to Groups EU3, EU4, EU6, and EU7.
5.1.30. for MM; 4.1.30 for Renewal	Similar to 3.2.3., the permittee suggested the following language at the end of the current permit condition: <u>However, the clinker cooler will be vented out of the main stack which includes emissions from the PH/PC kiln, in-line raw mill, clinker cooler, alkali bypass,</u>

[1] Email dated September 15, 2011, from David Constant, Senior Environmental Engineer for Essroc Italcementi Group.

Condition	Discussion of Changes
	and coal mill. The opacity limit for the main stack is 20 percent. The opacity limit will not be changed to 20% as suggested by the permittee. The limit will be 10% opacity in the main stack based upon the same rationale given above for condition 3.2.3.
5.1.33.for MM; 4.1.33 for Renewal	Corrected a misspelled word in the first sentence. Capitalized first letter of Hydrogen Chloride per the permittee's suggested language.
5.1.34. for MM; 4.1.34 for Renewal	Revised applicable emission units within the citation of authority.
5.1.35. for MM; 4.1.35 for Renewal	This permit condition is direct from 45CSR§10-4.2. The permittee suggests adding the following language after the current language: However, due to the variable nature of SO_2 emissions associated with Portland cement manufacturing, a 3-hour SO_2 limit is not feasible. Therefore, the short-term SO_2 limit is based upon a 30-day rolling average. First, there are no exemptions or variances for averaging times specified in 45CSR10 for emissions associated with Portland cement manufacturing. Second, condition A.15. of permit R14-026C specifies a "3-hr average (lb/hr)" averaging time for the hourly (*i.e.*, short term) SO_2 emission limit, which is determined using CEM. For these reasons, the suggested language will not be incorporated into the proposed permit.
5.2.4. for MM; 4.2.4 for Renewal	The permittee proposes the following additions to the second sentence of this condition: "The CEMS shall be installed and operated within 180 days of startup of the pyroprocessing line, and then be operated in compliance with the USEPA Part 60, Appendix B, Performance Specification 2 (NO_x and SO_2) and Performance Specification 4, 4a or 4b (CO) as appropriate." The proposed language could be interpreted to make compliance with the performance specifications required only after the 180-day period following startup has elapsed. In other words, the permittee could operate the CEMS while not complying with a PS during the 180-day period. But the underlying permit language (without the permittee's proposed language additions) allows no time period of operating the CEMS while not complying with the appropriate performance specification. The underlying permit states two requirements: (1) the deadline to install the CEMS; and (2) that the CEMS must be operated according to the appropriate PS. Thus, there is no time when the CEMS may be operated out of compliance with a PS. The underlying permit language is more stringent as-is, and will be written in the proposed Title V. Finally, the proposed change cannot be made since it would first have to be revised in the underlying permit to prevent violating an applicable requirement, which is not allowed under minor modification procedures (*cf.* 45CSR§30-6.5.a.1.A.1.).
5.2.5. for MM; 4.2.5 for Renewal	The permittee proposes (application Attachment S) the following additions to the second sentence of this condition: "The COMS shall be installed and operated within 180 days of startup of the pyroprocessing line, and then operated as outlined in Section 4.2.12 [40 C.F.R. § 63.1350 (m)]." The proposed language change is similar to that described above concerning condition 4.2.4. The details are different (i.e., CEMS v. COMS; PS v. MACT requirement) but the rationale for not making the change in 4.2.5. is the same as for 4.2.4. The underlying permit language is more stringent, and will be written in the proposed Title V. Also, the proposed change cannot be made since it would first have to be revised in the underlying permit.
5.3.6. for MM; 4.3.6 for Renewal	Finish Mills' emission unit IDs were revised to match Attachment S.

Minor Modification MM02

The permittee submitted an NSR Class II Administrative Update combined with Title V Minor Modification (MM02) Application (dated July 2011, and received by DAQ on October 3, 2011) to include the requirements and changes associated with permit application R14-026G. Permit R14-026G was approved by the Director on November 9, 2011, and its requirements are incorporated into the Title V renewal permit.

In addition to the changes pertaining to R14-026G, the changes associated with R14-026F will be incorporated into the renewal operating permit. According to the memorandum/evaluation for R14-026F, on August 8, 2011, the permittee submitted a request to the WVDAQ for a class I administrative update to their permit R14-026E. The tables below describe the revisions in R14-026E, and R14-026F.

Changes from R14-026E to R14-026F

R14-026F	Title V	Comments
A.7.	4.1.13.	According to the memorandum for R14-026F, the PM_{10} emission limit for EP39.12.02 was incorrectly listed as 0.01 instead of 0.61 tons per year. This was a typographical error. Permit application R14-026E along with the engineering evaluation (and therefore the public notice) reflected emissions of 0.61 tons per year from this source. The change will be made in the operating permit.
A.7.	4.1.13.	According to the memorandum for R14-026F, The source ID numbers for "Inert Raw Material Hauling to Quarry (Paved)" and "Inert Raw Material Hauling to Quarry (Unpaved)" were changed from EP39.07.01 and EP39.07.02 respectively to EP39.07.03 and EP39.07.04 respectively. This was done because these sources mistakenly shared the same numbering with two other emission points controlled by baghouses CD39.01 and CD39.03. The change will be made in the operating permit.
A.16.	4.1.24.	According to the memorandum for R14-026F, when Capitol originally submitted permit application R14-026E they included the addition of a new piece of equipment (a reburn hopper). WVDAQ determined that it was not appropriate to include this new piece of equipment in an "as-built" permit. Specifically, an as-built permit relies on and uses the original netting calculations. For a new piece of equipment this is not appropriate since the decreases Capitol relied on in their netting analysis are no longer contemporaneous. Therefore, Capitol agreed to remove this request and submit it separately at a later time. However, the emissions from this piece of equipment were mistakenly included in the permit. Therefore, to correct this error the Group 3 PM emission limit in Condition A.16 decreased from 280.09 tpy to 279.99 tpy. Similarly, the PM_{10} emission limit was decreased from 235.27 tpy to 235.12 tpy. The change will be made in the operating permit.

Changes from R14-026F to R14-026G

R14-026G	Title V	Comments
A.2.	4.1.2.	The limits for $PM_{2.5}$, PM_{10}, and TSP were revised to match the underlying permit.
A.16.	4.1.24.	The Group 3 fugitive source table was added to set forth the TSP and PM_{10} limits for the Reburn Hopper System. Also, the combined emission limits were revised to match the underlying permit. Note that these changes revise the limits discussed above that pertain to permit R14-026F.

Also, the Reburn Hopper System (EP42.09) is subject to the MACT Subpart LLL 10% opacity limit that is already set forth in renewal permit condition 3.1.20. The Reburn Hopper System is a part of the Group 3 sources, which are identified as source group EU3. EU3 is not among the source groups already specified in condition 3.1.20., which indicates that those sources are not subject to this permit condition. However since EP42.09 is subject to the condition, only the emission unit ID (i.e., EP42.09) will be added to the end of the citation of authority for permit condition 3.1.20.

PART TWO – RENEWAL OF THE TITLE V PERMIT

The permittee submitted a Title V Minor Modification Revision application to incorporate the requirements and changes discussed above. All of the changes under the minor modification will be included in the renewal permit, and will not be processed as a minor modification of the current permit. DAQ received the permittee's renewal application on June 29, 2010, which was prior to the deadline (July 4, 2010) for a timely and administratively complete application. In addition to the changes directly related to the minor modification, the renewal permit will also account for the following changes:

I. **NSR Permits R13-1616 and R13-1674C superseded by PSD Permit R14-026**
These underlying permits are no longer applicable to the facility. Permit R14-026 states on its first page that "This permit will supersede and replace Permit R13-1674C." And permit R13-1674 states in specific requirement (A)(1) that "This permit shall supersede and replace Permit No. R13-1616 issued September 8, 1993." Thus, the current R14 permit supersedes all of these previous R13 permits. Therefore, all conditions and references in the Title V that are based upon these permits R13-1616 and R13-1674 (and its revisions) will be removed. Conditions 5.1.18. and 5.1.38 are specifically affected by this determination. There are other conditions that mention these non-applicable permits, but such conditions have been stricken for other reasons already discussed in this Fact Sheet.

II. **Revisions due to Repeal of 45CSR1**
Multiple permit conditions set forth requirements of rule 45CSR1 – *NOx Budget Trading Program as a Means of Control and Reduction of Nitrogen Oxides from Non-electric Generating Units*, which has been repealed. Affected permit conditions have been accordingly modified as part of this permitting action. The Table E below sets out the affected Title V permit conditions with a discussion detailing the changes.

Table E

Current Condition	Renewal Condition	Discussion of Changes
4.1.10.	N/A	This requirement will be stricken in its entirety since 45CSR1 is the only underlying requirement. The condition will be "Reserved" so as to maintain subsequent condition numbering. Additionally, this change is justified by the decommissioning of Kiln #9, which is discussed in Section II. of this Fact Sheet.
4.2.3.	N/A	Same rationale as 4.1.10.
4.4.3.	N/A	Same rationale as 4.1.10., except it will not be "Reserved" since subsequent conditions apply only to decommissioned Kilns 8 and 9 (which will also be stricken).
4.5.3.	N/A	Same as 4.1.10. with the exception that it will not be "Reserved" since there are no subsequent conditions in subsection 4.5.
5.1.32.	4.1.32.	The condition will be stricken and marked "Reserved."
5.2.6.	4.2.6.	The condition will be stricken and marked "Reserved."
5.4.7.	4.4.7.	The condition will be stricken and marked "Reserved."
5.5.5.	4.5.5.	The condition will be stricken and marked "Reserved."

Note that all requirements in current permit Section 4.0 will be stricken (see discussion in Section II of Part I of this Fact Sheet). However, it remains worthwhile to document why 45CSR1-requirements are removed from the permit, even if there are other reasons why such permit conditions are removed.

III. **40 C.F.R. 60 Subpart Y - *Standards of Performance for Coal Preparation and Processing Plants*.** The current permit contains applicable requirements from this rule. According to the Fact Sheet[1], this NSPS was revised on September 25, 2009. Thus, where necessary, the permit conditions and citations of authority are modified to match language in the current version of the rule (Source: 74 FR 51977, Oct. 8, 2009, unless otherwise noted).

[1] Source http://www.epa.gov/ttn/oarpg/t1/fact_sheets/cpp_nsps_fr_fs_092509.pdf accessed on 8/17/2010.

The permittee operates several affected facilities listed in §60.254(a). The Title V permit already contains the applicable requirements of this NSPS which are also specified in R14-026C, B.8. The Title V conditions are 4.1.42. and 4.3.15., which set forth the applicable 20% opacity limit and its corresponding test method to demonstrate compliance, respectively. According to applicability information provided by the permittee in "Table L-1 – Regulatory Applicability" of the minor modification application, the majority of the equipment to which this NSPS applies are within the Fuel Handling Group (EU5). But there are two other sources in the Miscellaneous Group (EU8) which are subject to the NSPS.

The citation for condition 4.1.42. already specifies the Fuel Handling Group for applicability. But this NSPS requirement also applies to the Coal Storage Pile (Craneway) and Petcoke Storage Pile (Craneway), which are EU8 emission units EP15.04.03 and EP15.04.04, respectively. Rather than writing a new condition in the EU8 section of permit subsection 5.1., these emission points are simply added to the citation of condition 4.1.42. According to the application, the construction of coal processing and conveying systems commenced prior to April 28, 2008; therefore, the condition remains applicable and the additional language is applicable. It is noted from the renewal application (i.e., its Attachment I) that EP41.02.04, which is included under EU5 in permit subsection 1.1., is excluded from being subject to the requirements of 4.1.42. since the Coal Mill baghouse and coal conveying sources that are vented to the baghouse are subject to the more stringent standards of 40 C.F.R. 63 Subpart LLL.

Condition 4.3.14. was modified to account for the change of citation within the permit condition language. Also, the underlying NSPS requirement was added to the citation of authority.

Condition 4.3.15. was modified to match language in §60.257(a)(1) through (3). The citation of condition 4.3.15. was modified to specify both Fuel Handling and the specific emission units in the Miscellaneous Group EU8.

Attachment I in the application states that the reporting required by §60.258(c) is applicable. Therefore, condition 4.5.9. has been created for this requirement under the EU5 section, and subsequent permit condition numbers have been revised to account for the insertion.

The following are miscellaneous corrections or changes with respect to NSPS Subpart Y requirements.

i. Condition 4.3.14. The rule citation within the condition language (i.e., §60.252(c)) is changed to match the most current version of the rule.
ii. Condition 4.2.10. The citation of condition B.8. is relocated for consistency and clarity.

The following requirements were determined to be non-applicable. Since the NSPS contains requirements that are applicable, these particular non-applicability determinations are given here rather than in the Non-applicability Determinations section of this Fact Sheet. The Non-applicability Determinations section is typically used to set out entire rules or regulations that are non-applicable.

a. 40 C.F.R. §60.252 is not applicable since a *thermal dryer* is not employed at the facility.
b. 40 C.F.R. §60.253 is not applicable since pneumatic coal cleaning equipment are not employed at the facility.
c. 40 C.F.R. §60.253 is not applicable to the facility since it requires monitoring for a *thermal dryer*.

<u>Schedule of Compliance for NSPS Subpart Y</u>
Attachment I of the application states that one emission unit, EP41.01.02, demonstrated non-compliance during its Initial Method 9 Performance Test and an Attachment F Form (Schedule of Compliance) was completed and included in the application. Attachment I states that all other sources demonstrated compliance with their opacity limits. Additionally, all Initial Method 9 testing was performed more than 180 days from start of operation. To address this non-compliance, a separate Attachment F was included.

According to Attachment F in the application, the permittee was required to perform Initial Method 9 Performance Testing within 180 days of start-up to demonstrate compliance with the 20% opacity limit. The emission unit was found to be out of compliance during the testing conducted in March and April of 2010. To achieve compliance, the permittee proposed to repair the problem, and conduct Method 9 performance testing on the source once the repairs are completed. The permittee provided a schedule for completing necessary repairs and completing the Method 9 testing by September 31, 2010. The permittee

also stated that test results will be submitted within 60 days of testing completion. According to technical correspondence[1], EP41.01.02 was tested on September 20, 2010, and passed. According to the correspondence, a letter dated November 29, 2010, was sent to Mr. Richard Fenton of DAQ Compliance and Enforcement Section.

The permittee also submitted another Attachment F with regard to Subpart Y. In particular, certain affected sources started operation on September 20, 2009, but Initial Method 9 Performance Testing was conducted on March 27 through April 1, 2010, which was more than 180 days from the start of operation. According to the Attachment F, the permittee experienced significant issues with maintaining a period of continuous operation of the kiln system until Spring of 2010, and due to this factor had difficulty operating other attending sources for a continuous period to allow for performance testing to be conducted within the 180 day period. However, all sources demonstrated compliance with their 20% opacity limit during the Initial Method 9 Performance Testing conducted on March 27 through April 1, 2010. Therefore, a schedule of compliance is not necessary for those sources named in the Attachment F, which are: EP15.01.01, EP15.01.02, EP15.04.03, EP15.04.04, EP41.01.01, EP41.01.03, EP41.01.04, EP41.01.05, EP41.01.06, EP41.01.07, EP41.02.01, EP41.02.02, and EP41.02.03.

IV. **40 C.F.R. 60 Subpart OOO - *Standards of Performance for Nonmetallic Mineral Processing Plants*.**
The permittee operates several affected facilities listed in §60.670(a)(1). The facility is not subject to 40 C.F.R. 60 Subpart F (*cf.* Title V permit section 3.7.2.); therefore, it does not meet the exemption criterion of §60.670(b). The facility does not meet the exemption under §60.670(c). The permittee has commenced a *modification* (as defined in §60.2) after August 31, 1983; therefore, this NSPS applies to affected facilities. According to technical correspondence[2], construction of the affected sources began in November 2005. Therefore applicable NSPS requirements are based on construction prior to April 22, 2008.

The Title V permit already contains applicable requirements of this NSPS. The citations of authority for these conditions have been revised to indicate applicability to equipment within Groups EU1, EU2, and EU8. This is based upon applicability information provided by the permittee in "Table L-1 – Regulatory Applicability" of the minor modification application. The affected conditions are 4.1.10., 4.1.11., 4.1.12., 4.3.3., 4.3.4., and 4.5.3.

A correction was made to condition 4.3.3.(2) to change its number to (3). This matches the existing citation of authority and corresponds to the outline of requirements in Subpart OOO.

The citation of condition 4.1.12. contains 40 C.F.R. §60.672(c) and R14-026C, B.8. But R14-026C, condition B.8., does not specify §60.672(c). However, B.1. requires compliance with Subpart OOO. Therefore, B.8. will be changed to B.1. Furthermore, §60.672(c) is now "Reserved" in the CFR, and the correct citation is §60.672(b).

Table F details the schedule of compliance with regard to Subpart OOO.

Table F

Schedule of Compliance for NSPS Subpart OOO
Performance Testing. The permittee submitted a Schedule of Compliance (Attachment F) for certain sources subject to NSPS Subpart OOO. According to Attachment F, the permittee was unaware during start-up of plant operations that all affected sources equipped with a capture system must conduct an Initial Method 5 or Method 17 Performance Testing within 60 days after achieving maximum production, but not later than 180 days after initial start-up to demonstrate compliance with the particulate matter limit of 0.022 gr/dscf (i.e., applicable requirement §60.672(a)). According to Attachment F, compliance will be achieved by conducting Initial Method 5 Performance Testing on all sources no later than September 31, 2010. A test results report will be submitted to the Director within 60 days of testing completion. On November 8, 2010 DAQ received a test report for the performance testing of CD37.03, CD37.04, CD37.06, CD39.01, and CD39.05. The test report indicates that the foregoing sources were within the applicable emission limit. Note that sources CD04.03, CD38.01, and CD38.02 were to be tested later or

[1] Email dated August 23, 2011, from David Constant, Senior Environmental Engineer for Essroc Italcementi Group.
[2] Email dated August 30, 2010, from Lisa Hunt, Environmental Manager for Essroc Italcementi Group.

Schedule of Compliance for NSPS Subpart OOO
not tested for reasons discussed below in this table.
Delayed Performance Testing for CD04.03. The permittee's letter dated September 2, 2010 and received by DAQ on September 9, 2010, notified DAQ that Method 5 PM testing of CD04.03 will not be conducted by September 30, 2010 as stated in Attachment F of the Title V renewal permit application. According to the letter, source CD04.03 had not started operation since its modification began, and it was still being modified. The permittee estimates that the modification will be completed by December 31, 2010. The letter also stated that the permittee will provide the proper notifications with regard to startup and testing of CD04.03. According to technical correspondence[1], CD04.03 was tested on June 21 and 22, 2011, and passed. A letter dated August 18, 2011, was sent to Mr. John Benedict indicating the results. Therefore, no compliance plan for this source is required for the renewal permit.
Exceptions for CD38.01 and CD38.02. The permittee's letter dated September 13, 2010 and received by DAQ on September 16, 2010 states that DAQ personnel confirmed to the permittee that Method 5 stack testing for particulate matter (PM) under 40 C.F.R. 60 Subpart OOO is not required for the following sources since they are enclosed within a building: 1. CD38.01 Premix Storage Feeding dust collector, and 2. CD38.02 Premix Storage Discharge dust collector. The exception for these two devices is allowed by 40 C.F.R. §60.672(e), which provides for when compliance has been demonstrated by monitoring fugitive emissions from the building openings. According to the letter, Method 9 visible emission evaluations were conducted for all of the openings to the enclosed building and the results were submitted to the Director on May 28, 2010. Therefore, no compliance plan is required in the renewal permit for CD38.01 and CD38.02.

Other Attachments F due to Testing after the Deadline. The permittee also submitted two other Attachments F with regard to Subpart OOO. Both of these attachments are submitted since the sources named in them were tested after the 180-day period in which testing was required to be performed. According to these attachments, all of the sources demonstrated compliance with their respective opacity limits when testing was conducted on March 27 through April 1, 2010. Therefore, a schedule of compliance is not necessary in the renewal permit for these sources subject to the 7% opacity limit at §60.672(a), which are named in the first Subpart OOO Attachment F as: CD37.03, CD37.04, CD37.06, CD38.01, CD04.03, CD38.02, CD39.05, CD39.01, and CD39.02. Similarly, a schedule of compliance is not necessary for these sources subject to the 10% opacity limit (§60.672(b)) named in the second Subpart OOO Attachment F, which are: EP37.02.02, EP37.05, and EP40.03.

V. 40 C.F.R. 63 Subpart LLL - *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*

The facility is subject the applicable requirements of this rule, and such requirements are in the current Title V permit. According to the U.S. EPA Fact Sheet[2], on August 6, 2010, EPA issued amendments to two rules that will significantly reduce emissions of mercury and other air toxics and particle-forming pollutants from new and existing Portland cement kilns across the United States. The rules also will limit emissions of ozone- and particle-forming pollutants from new kilns. EPA's amended *air toxics standards* will reduce air emissions of mercury, total hydrocarbons, hydrochloric acid and particulate matter from both new and existing cement kilns. The rules apply both to large and small kilns that emit toxic air pollutants. According to the U.S. EPA Fact Sheet, emission limits include those in the following Table G:

Table G

Pollutant	Existing Source Kilns	New Source Kilns
Mercury (Hg)	55 pounds per million tons of clinker, averaged over 30 days	21 pounds per million tons of clinker, averaged over 30 days
Total Hydrocarbons (THC)	24 parts per million by volume (ppmv), averaged over 30 days	24 ppmv, averaged over 30 days

[1] Email dated August 23, 2011, from David Constant, Senior Environmental Engineer for Essroc Italcementi Group.
[2] Source http://www.epa.gov/ttn/oarpg/t1/fact_sheets/portland_cement_fr_fs_080910.pdf accessed on 8/17/2010.

Pollutant	Existing Source Kilns	New Source Kilns
Particulate Matter (PM) (as a surrogate for toxic metals other than mercury)	0.04 pounds per ton of clinker, averaged over 30 days	0.01 pounds per ton of clinker, averaged over 30 days
Hydrochloric acid (HCl) (major sources only)	3 ppmv, averaged over 30 days. However, the limit is zero (0) if there is no HCl CEM.	3 ppmv, averaged over 30 days

Further, according to the U.S. EPA Fact Sheet, existing kilns must comply with the new limits three years after the final rule is published in the *Federal Register*. The changes were published in the Federal Register on September 9, 2010, and became effective on November 8, 2010. On January 18, 2011, EPA issued a revision to clarify the applicable compliance dates. In accordance with 40 C.F.R. §63.1351(c), the compliance date for existing sources with all requirements that became effective on November 8, 2010 is currently September 9, 2013. New kilns (those for which construction commenced after May 6, 2009) must comply at startup or within 60 days after this rule was published, whichever is later.

PH/PC Kiln is an Existing Source for Mercury (Hg), PM, THC, and HCl

It is important to recognize that the technical term "new source" is in the context of the rule amendments with respect to determining applicability of the limits for the four pollutants in Table G. According to the definition under amended §63.1341[1], a "*New source means any source that commenced construction after May 6, 2009, for purposes of determining the applicability of the kiln, clinker cooler and raw material dryer emissions limits for mercury, PM, THC, and HCl, and the requirements for open clinker storage piles.*" In a response letter[2] to the permittee, DAQ confirmed that it considers construction to have "commenced" (as defined in 40 C.F.R. 63 Subpart A) on the new Martinsburg kiln before December 2, 2005. The response letter detailed the following three compelling facts for reaching this determination:

1. Essroc hired a kiln design firm, received said preheater-precalciner kiln designs, and paid the kiln design firm prior to December 2, 2005.

2. Essroc prepared, submitted an application for, and received a Prevention of Significant Deterioration permit for the new preheater-precalciner kiln prior to December 2, 2005.

3. Essroc purchased ancillary equipment for the preheater-precalciner kiln prior to December 2, 2005.

Since the permittee commenced construction of the PH/PC kiln prior to May 6, 2009, the kiln is not a new source; rather, it will be subject to applicable limits of Hg, PM, THC, and HCl for an *existing* kiln, clinker cooler, and raw material dryer. Note, however, that according to technical correspondence[3] the permittee does not have a raw material dryer; therefore, any requirements regarding raw material dryers are not applicable to the permittee For example, condition 3.1.20. does not contain the rule language regarding raw material dryers.

PH/PC Kiln is a New Source for Dioxins and Furans (D/F) and Opacity

MACT Subpart LLL also sets a limit for D/F emitted from kilns. Further, opacity is limited from raw or finish mills. Since neither of these pollutants are included among those mentioned above (i.e, Hg, PM, THC, and HCl) with regard to the MACT amendments, the PH/PC kiln must be evaluated to determine if it is an existing or new source in order to correctly specify applicable D/F and opacity limits. §63.1341 gives the following definition:

> *New brownfield kiln, in-line kiln raw mill, or raw material dryer* means a kiln, in-line kiln/raw mill or raw material dryer for which construction is commenced at a plant site (where kilns and/or in-line kiln/raw mills were in operation prior to March 24, 1998) after March 24, 1998.

[1] Source http://www.epa.gov/ttn/oarpg/t1/fr_notices/portland_cement_fr_080910.pdf accessed on 8/17/2010.
[2] DAQ letter dated April 10, 2007 to Mr. Hector Ybanez, Director, Environmental Affairs for Essroc Cement Corporation. This letter was provided to this writer in an 8/30/2010 technical correspondence email from the permittee.
[3] Email dated November 9, 2010, from Lisa Hunt, Environmental Manager for Essroc Italcementi Group.

According to Table E-1 of the renewal application, construction commenced on the affected sources in November 2005. Since construction of the PH/PC kiln system was commenced after March 24, 1998, and kilns were in operation prior to March 24, 1998, the PH/PC kiln meets this definition of a *new brownfield kiln* (or simply, *new kiln*, as this term is used in Table 1 under §63.1343(b)(1)) for pollutants D/F and opacity. Therefore, all D/F and opacity limits, standards, and associated MRR specific to new kilns are applicable in this case. Note that the PH/PC kiln was considered a new kiln before the September 9, 2010, amendments since the definition of *New brownfield kiln, in-line kiln raw mill, or raw material dryer* did not change with the amendments (only the new definition *New source* was added for determining applicability for Hg, PM, THC, and HCl).

Direct Final Action on Amendments to NESHAPs-MACT Subpart LLL

U.S. EPA issued direct final action on amendments to the rule to amend certain regulatory text to clarify compliance dates and clarify that the previously issued emission limits that were changed in the September 9, 2010 action remain in effect until sources are required to comply with the revised limits. U.S. EPA has also corrected two minor typographical errors in the regulatory text to the September 9, 2010 action. The following summarize several important statements given in the "Supplementary Information" for the direct final action:

i. EPA in fact intended that the same compliance date apply for all changes to rule requirements for existing sources.
ii. EPA has now modified §63.1351 to clarify that all of the amendments of standards for existing sources have a compliance date of three years from promulgation.
iii. EPA has now clarified that the compliance date for the monitoring requirements associated with the September 9, 2010, emission standards, including requirements for measuring clinker production, is three years from promulgation.
iv. In establishing the September 9, 2010, standards for cement kilns, it was not EPA's intention to remove the existing emission limits for these kilns adopted by EPA in 1999 and 2006. However, due to drafting error, these provisions were inadvertently deleted. In this action, EPA is restoring the kiln, clinker cooler, and raw material dryer emissions limits as they existed prior to the September 9, 2010, rule amendments. This includes both the new and existing source emissions limits that existed prior to September 9, 2010.
v. Once the compliance date for any emissions limit changed on September 9, 2010, has passed, the previous limit no longer applies.

The clarification provided in this Direct Final Action has been used to interpret the amended rule and apply it to the facility.

Changes for the Title V Renewal

Rationale for Changes

For this facility, the compliance date is September 9, 2013 for all amendments to Subpart LLL standards for existing sources. This particularly pertains to emissions of PM, Hg, THC, and HCl from kilns, clinker coolers, and raw material dryers (*cf.* definition of *New source* in §63.1341). In the interim period between the effective date of this permit, and this compliance date, the permittee must continue to comply with the applicable limitations and standards for these pollutants that were in the pre-amendments rule, which have been reinstated in the rule under the Direct Final Action. Where necessary, citations of authority have been modified in the renewal permit in order to reflect the changes under the Direct Final Action.

Based upon statement "i." above, no permit condition language will be modified that pertains to any pollutant for which the source is considered *existing*. The pollutants for which the kiln is considered existing are Hg, PM, THC, and HCl. However, among these, only PM requirements are in the current permit. Since the permittee does not have to comply with these changes for existing sources until September 9, 2013, and a modification of the renewal permit will be made to incorporate the requirements then, none of the Hg, THC, or HCl requirements are being included in this renewal permit. Particulate matter requirements from Subpart LLL are in the current permit; however, no PM permit condition language that has Subpart LLL as its authority will be modified in this renewal. However, citations of authority for such permit conditions may be modified as appropriate to align with the amended rule and the Direct Final Action.

In the Direct Final Action, §63.1343(e) states that "Any source defined as an existing source in §63.1351, and that was subject to a PM, mercury, THC, D/F, or opacity emissions limit prior to September 9, 2010, must continue to meet the limits shown in Table 2 to this section until September 9, 2013." Table 2 in that section lists the emissions limits in effect prior to September 9, 2010. Note that this requirement in §63.1343(e) is for an *existing* source. It has already been determined (see above) that the PH/PC kiln is a *new* kiln with respect to D/F and opacity; therefore, this specific requirement to continue complying with the pre-amendment D/F and opacity limits in Table 2 under §63.1343(e) is not applicable for these pollutants. The applicable D/F and opacity standards are those in the amended rule that are for new kilns, and according to §63.1351(d), the compliance date for a new source is November 9, 2010 or startup, whichever is later. Since the permittee must be in compliance with new source requirements for D/F and opacity upon startup, these applicable requirements will be either modified or inserted into the renewal permit.

Permit Condition 3.1.19.
This condition is modified since it pertains to opacity. The condition and its citation have been modified since amended §63.1347 no longer contains the 10% opacity limit for raw or finish mills. The 10% opacity limit for these sources is now found in Row 16 of Table 1 under §63.1343(b). The new condition language is tailored from the header row of Table 1 at §63.1343(b), and excludes unnecessary or redundant language (e.g., And the operating mode is: All operating modes).

Permit Condition 3.1.20.
This condition and its citation have been modified to match the September 9, 2010, rule language. Note that raw material dryer language is not included since the permittee does not have this equipment.

Permit Condition 3.1.21.
This condition and its citation have been modified to match the language in the Direct Final Action.

Permit Condition 3.1.22.
This condition has been written in the renewal permit to set forth the applicable limits for various pollutants regulated by amended Subpart LLL, and to specify the compliance date for the amended rule requirements. The following Table H lists the applicable rule sections cited for condition 3.1.22., and provides discussion as to why the language is applicable.

Table H

Applicable Section	Rule Language	Discussion
§63.6(c)	*Compliance dates for existing sources.* (1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the applicable subpart(s) of this part. Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.	This section is cited since it requires the permittee to comply with the applicable standard by the established compliance date (which is September 9, 2013, as discussed below).
§63.1351(c)	The compliance date for existing sources for all the requirements that became effective on November 8, 2010 will be September 9, 2013.	In this section the regulation establishes the compliance date that is applicable to existing sources. Therefore, the compliance date is included in the permit condition.
§63.1353(b)(5)	Each owner or operator subject to the requirements of this subpart shall comply with the notification requirements in §63.9 as follows: * * * Notification of compliance status, as required by §63.9(h).	This section is cited since it requires the permittee to submit a notification of compliance status (NOCS).
§§63.9(h)(2)(i)	Before a title V permit has been issued to the	§63.9(h)(1) states that "The requirements of

Applicable Section	Rule Language	Discussion
AND (ii)	owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status…. AND The notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard….	paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard." Thus, (h)(2) through (h)(4) must be examined to determine how they apply to the permittee. §63.9(h)(2) applies "Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part…." While §63.9(h)(3) applies "After a title V permit has been issued to the owner or operator of an affected source…" A cursory inspection of this language could be interpreted to mean §63.9(h)(2) cannot apply to a facility that has been issued a Title V permit. However, this is not a correct conclusion. Notice that §63.9(h)(3) goes on to read, "After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part." The language from §63.9(h)(3) assumes, then, that the issued Title V permit contains requirements for compliance status reports. In the permittee's case, such requirements for NOCS are not now included in their Title V permit. Thus, it would be impossible for the permittee to comply with §63.9(h)(3). Furthermore, the point of both §63.9(h)(2) and (3) are that the permittee submit the NOCS report. The former section specifies what is required for the report if such requirements are not yet embodied in an issued Title V permit, while the latter requires an NOCS that conforms to the requirements for NOCS that must be in an issued permit. Since the permittee's operating permit does not contain these requirements in §63.9(h)(2) for an NOCS, they will be included in the Title V permit renewal.

Permit Condition 3.1.23.
This condition has been written in the renewal permit to set forth the applicable general duty to minimize emissions requirement. Since this rule requirement is (i) not specifically limited to any of the pollutants that fall under the September 9, 2013 compliance date, and is (ii) broad and general in its scope, it is included in the renewal permit.

Permit Condition 3.1.24.
This condition has been written in the renewal permit to set forth the applicable standard regarding initial compliance for opacity. Since the source is "new" for opacity under the amended rule, this requirement has been included in the renewal.

Permit Condition 3.1.25.
This condition has been written in the renewal permit to set forth the applicable standard regarding initial compliance for the pollutant D/F. Since the source is "new" for D/F under the amended rule, this requirement has been included in the renewal. The rule language refers to the "temperature operating limits specified in §63.1344…" This has been corrected in the permit condition to refer to §63.1346.

Permit Condition 3.2.1.
This condition has been modified to contain the requirements of §§63.1347(a) and (b) since these requirements are essentially conditions (1), (2), and (3) within 3.2.1. The remainder of the terms (4)(i) through (4)(vii) of the condition are stricken. Note, however, that language of (4)(i) through (4)(vii) are revised in the amended rule, and the section numbering has been changed. Refer to permit condition 3.2.7.(1)(i) through (vii).

Permit Condition 3.2.2.
This condition has been modified to remove rule language that no longer exists, and replace it with amended rule language. The permittee's suggested explanatory language of the first paragraph in the condition is retained (see discussion in Part I, Section IV. of this Fact Sheet).

Permit Condition 3.2.3.
This condition has been stricken and reserved since there are no opacity standards for clinker coolers in the amended rule.

Permit Condition 3.2.4.
This condition has been revised to match amended rule language.

Permit Condition 3.2.5.
This condition has been revised to match amended rule language.

Permit Condition 3.2.6.
The current condition requires the permittee to conduct an annual inspection of the components of the combustion systems of the kiln subject to a D/F emission limitation. However, in the amended rule, there is no such specific, stand-alone requirement at §63.1350(i) or anywhere else. There is §63.1347(a)(3), which requires the written operations and maintenance plan to contain "Procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln raw mill located at the facility at least once per year." There is also §63.1354(b)(9)(iv), which requires reporting of "The results of any combustion system component inspections conducted within the reporting period as required under §63.1350(i)." However, this reference back to §63.1350(i) is incorrect since §63.1350(i) specifies THC monitoring in the amended rule. This appears to be a clerical oversight, similar to another at amended rule §63.1354(b)(9)(v) which incorrectly refers to §63.1350(a) for the operation and maintenance plan. The current condition 3.2.7. will be stricken and reserved in the renewal. However, this would not relieve the permittee from inspecting the combustion system since at least two other rule sections (mentioned above in this paragraph) imply the requirement for inspections of the combustion system.

Permit Condition 3.2.7.
The current condition requires opacity monitoring for affected sources other than kilns; in-line kiln/raw mills; clinker coolers; new and reconstructed raw material dryers; and raw and finish mills according to the operation and maintenance plan. The entire condition must be replaced with amended requirements at §63.1350(f).

The first paragraph mentions the "operation and maintenance plan developed in accordance with (p)(1) through (p)(4) of this section." However, the context of amended §§63.1350(p)(1) through (p)(4) is the site-specific monitoring plan and, as applicable, the continuous monitoring plan (CMS). The operation and maintenance plan is in amended §63.1347(a). Therefore, the language "(p)(1) through (p)(4) of this section" is changed to "40 C.F.R. §63.1347(a)" in this permit condition.

The first paragraph also mentions that "You must also develop an opacity emissions monitoring plan in accordance with paragraphs (o)(1) through (o)(4) and paragraph (o)(5), if applicable, of this section." However, the content of amended §§63.1350(o)(1) through (5) is alternate monitoring requirements. The references to (o)(1) through (o)(4) and (o)(5) should be changed such that the "o" is replaced with a "p". This is the most sensible meaning after examining all of the requirements in §63.1350. Since §63.1350(f) requires conformance with §63.1350(p), a new permit condition (3.2.15.) has been written to embody the requirements of the latter. Note that the requirement at §63.1350(p)(5) is non-applicable, and is therefore

not included in the permit, since according to the permittee's technical correspondence[1] no BLDS systems are employed at the facility.

The language of §63.1350(f)(2)(iii) mentions "follow-up Method 22 performance test required by paragraph (a)(5)(ii) of this section from any stack from which visible emissions were observed during the previous Method 22 performance test required by paragraph (a)(5)(i)". However, these particular paragraphs (a)(5)(ii) and (a)(5)(i) do not exist in the amended rule. It is noted that §63.1350(f)(1)(ii) sets forth the follow-up Method 22 testing, and §63.1350(f)(1)(i) specifies the previous Method 22 testing. Therefore, these references are corrected in permit condition 3.2.7.(2)(iii).

Permit Condition 3.2.8.
The current condition requires use of a PM CEMS. This condition will have the note added as discussed above in the first paragraph under Changes for the Title V Renewal.

Permit Condition 3.2.9.
The current condition sets forth the requirements pertaining to the approval of alternate monitoring. These requirements remain in the amended rule, but are now at §63.1350(o). Only clerical changes have been made in order to conform to the amended rule.

Permit Condition 3.2.10.
The current condition sets forth exceptions to Method 22 testing if either a COM or BLDS is employed, and specifies requirements for a COM or BLDS. The numbered requirements of the condition specify details for a BLDS. The current permit condition is essentially found in amended §63.1350(f)(4); therefore, the amended language is inserted into the permit at this condition. Further, since the permittee does not employ a BLDS, no requirements specific to it are included in the renewal. However, the language in §63.1350(f)(4)(ii) is retained in the permit since it sets forth the option to use a BLDS.

Permit Condition 3.2.15.
The new condition sets forth the monitoring plans requirement, which is referred to by other applicable requirements discussed above.

Permit Condition 3.2.16.
The new condition sets forth the continuous emissions rate monitoring system requirement, which is referred to by other applicable requirements discussed above.

Permit Condition 3.2.17.
The new condition sets forth the applicable parameter monitoring requirements, which are referred to by other applicable requirements discussed above.

Permit Condition 3.3.2.
The current condition is essentially the same as the requirements in amended §63.1349(a). The first paragraph of the condition has been replaced with amended language. Also, language in §63.1349(a)(9) and (10) was changed for the amended rule; therefore, these changes are reflected in conditions 3.3.2.(9) and (10).

Permit Condition 3.3.3.
The current condition sets out performance testing for PM, opacity, and D/F emissions. The first sentence of the current condition will be stricken since it is not in the amended rule. The pre-amendment requirements for PM will be retained and a note will be added to condition 3.3.3.(1). Since the facility is a new source for opacity and D/F emissions, conditions 3.3.3.(2) and 3.3.3.(3) will be revised to reflect the amended rule language. The reference citation at the end of 3.3.3.(3) has been corrected since the rule states §63.1344(b).

Permit Condition 3.3.4.
The current condition specifies performance test frequency for PM and opacity. This is a slightly more complex situation in which the permit condition specifies one requirement for a source that is now

[1] Email dated November 9, 2010, from Lisa Hunt, Environmental Manager for Essroc Italcementi Group.

"existing" for PM, but "new" for opacity. As already discussed, the current PM requirements will be retained in the renewal permit with an accompanying note to specify the period in which the PM requirements are applicable. The note for this condition, however, specifies applicability of the condition to PM alone.

Permit Condition 3.3.5.
The current condition specifies performance test frequency for D/F. The amended rule requirement now specifies the testing for D/F (actually, the rule specifies "dioxin" – not D/F) and other pollutants under §63.1349(c). The amended language will replace the current language in this condition, and the citation of authority has been revised.

Permit Condition 3.3.6.
The current condition comes from §63.1349(e). The rule language has been revised, and rule section numbering has changed. These revisions to the rule have been reflected in the language of this condition, as well as in its citation of authority. Additionally, amended §63.1348(c)(2)(iv) states "The performance test must be conducted completed within 360 hours after the planned operational change period begins." Clearly, this is an oversight in editing. The language of the current permit condition appears to still capture the intent of the rule requirement, and no substantive change is represented in the amended rule langauge. Therefore, the language contained in the current permit will be retained as renewal permit condition 3.3.6.(2)(iv).

Permit Condition 3.5.11.
Language in 3.5.11.(9)(i) has been revised to reference the revised permit condition numbers.

Amended §63.1354(b)(9)(i) incorrectly states "All exceedances of maximum control device inlet gas temperature limits specified in §63.1344(a) and (b)." Since amended §63.1344 sets forth affirmative defense, this has been corrected in renewal permit condition 3.5.11.(9)(i) to reference §63.1346(a) and (b).

Amended §63.1354(b)(9)(ii) incorrectly states "All failures to calibrate thermocouples and other temperature sensors as required under §63.1350(f)(7) of this subpart;". Considering that there is no amended §63.1350(f)(7), this has been corrected in renewal permit condition 3.5.11.(9)(ii) to reference §63.1350(g)(1)(iii).

Amended §63.1354(b)(9)(iv) states "The results of any combustion system component inspections conducted within the reporting period as required under §63.1350(i)." However, §63.1350(i) no longer contains the combustion system inspection requirement, rather it is THC monitoring. Amended §63.1347(a)(3) requires "Procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln raw mill located at the facility at least once per year" to be integral to the written operations and maintenance plan. Therefore, the reference has been corrected as §63.1347(a)(3), which is in condition 3.2.1.(3).

Amended §63.1354(b)(9)(v) states "All failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1350(a)." However, the operation and maintenance plan is not in amended §63.1350(a). This section is now concerns averaging normal operation data separate from startup/shutdown data. The correct reference is to §§63.1347(a) and (b).

Amended §63.1354(b)(9)(vi) was not added to the renewal permit since its requirements come into effect on the September 9, 2013 compliance date.

Permit Condition 3.5.12.
§63.1354(c) was added in the rule amendments. This requirement is set forth as permit condition 3.5.12. The requirement references §63.1348(d), which is renewal condition 3.1.23. (discussed above).

Permit Condition 4.1.5.
The current permit condition specifies emission limits of PM, opacity, and D/F from kilns and in-line kiln/raw mills. Under the rule amendments, the facility is considered *existing* for PM, and *new* for both opacity and D/F.

First, the facility must continue to comply with the pre-amendments PM limit of 0.15 kg per Mg (0.30 LB per ton) of feed (dry basis) to the kiln. Therefore, the citation has been revised to include §63.1343(e).

The second limit in the condition is 20% opacity from a kiln or in-line kiln/raw mill. Since the facility is considered *new* for opacity, any amended opacity limit for kilns and in-line kiln/raw mills must be included in the renewal permit. Of all the limits given in Table 1 under §63.1343(b)(1), the only opacity limits mentioned apply to raw material dryers and raw or finish mills. There is no opacity limit in Table 1 under §63.1343(b)(1) for a kiln or in-line kiln/raw mill. And as a clarifying point, the 10% opacity limit in §63.1345 applies to sources other than kilns and in-line kiln/raw mills. Further, the 10% opacity limit in Row 16 of Table 1 under §63.1343(b) is for a raw or finish mill. By definition, a *raw mill* is not part of an in-line kiln/raw mill (which is the type of kiln system the permittee employs). Since a raw mill is not the same as an in-line kiln/raw mill, the opacity limit for a raw mill cannot be applied to the permittee's in-line kiln/raw mill. Based upon these facts, this opacity portion of the condition is removed from the renewal permit.

The final limits in the condition are for D/F. The kiln is new for D/F, but there is no change in the limits after the rule amendments have been made. Thus, there is no change in current condition 4.1.5.(3) (which will be renumbered to 4.1.5.(2) due to elimination of the opacity limit).

Permit Condition 4.1.6.
The current permit condition specifies requirements for the gas temperature at the inlet to the kiln PMCD. The amended startup/shutdown exception language was added to the last sentences in conditions 4.1.6.(1), (2), and (3). The citation of authority was revised.

In conditions 4.1.6.(1), (2), and (3), the reference to condition 5.1.20. was incorrect since 5.1.20. set forth the clinker production limit of 100,000 TPY for Kiln #7 and specified nothing concerning a temperature limit. The reference should have been 5.1.7., which with the revisions accounted for in this renewal permitting action, is set forth as renewal permit condition 4.1.7.

Permit Condition 4.1.7.
The parenthetical "a" is unnecessary due to the way the condition is currently written; thus, these are removed from the renewal permit. The citation of authority was revised.

Permit Condition 4.1.30.
The current condition sets limits on PM and opacity emitted from new or existing clinker coolers. The clinker cooler is considered existing. In accordance with the Direct Final Action, Row 5 of Table 2 under §63.1343(e) is applicable, and will be the revised citation for this condition.

Permit Condition 4.2.12.
The current condition allows the permittee to forgo daily Method 22 testing of any specific raw mill or finish mill equipped with a COM or BLDS. Rather than in §63.1350(m), the first two sentences of this condition are now in amended §§63.1350(f)(4) and (f)(4)(i). The last sentence of the first paragraph of the condition is in amended §63.1350 (f)(4)(ii). Considering the fact that the permittee does not employ a BLDS at the facility, there is no need to retain the BLDS permit conditions 4.2.12.(1) through (9). Therefore, these conditions will be stricken from the permit, the first paragraph will be revised to agree with the amended rule, and the citation of authority will be revised as necessary.

Other Subpart LLL Conditions
Although derived from 40 C.F.R. 63 Subpart LLL, there are no changes to conditions 3.4.4., 3.4.5., 3.4.6., and 3.5.10.

<u>Attachments F for 40 C.F.R. 63 Subpart LLL</u>
The permittee submitted a Schedule of Compliance (Attachment F) for certain sources subject to MACT Subpart LLL. According to Attachment F, emission sources were either not in operation during the time period in March and April 2010 when the Initial Performance Testing was conducted or were found to be out of compliance with the 10% opacity limit during the testing. According to Attachment F, the permittee was to address all out of compliance issues and conduct Initial Method 9 Performance Testing on all remaining sources once they either begin operation or when repairs are completed. The permittee proposed that this testing be complete by September 31, 2010. The affected sources/emission points that are given in

application Attachment F are: CD43.14, CD45.03, CD45.04, CD45.05, CD45.06, CD45.07, CD45.09, CD21.05, CD21.06, CD21.07, CD21.08, CD21.09, CD21.10, CD21.11, CD21.12, CD21.13, CD45.12, CD45.13, CD46.07, CD20.04, CD20.05, CD20.06, and CD31.03. According to technical correspondence[1], performance testing was performed for these sources on various dates in September 2010, and all sources passed their respectively testing requirements. Therefore, no compliance plan is required for the renewal permit to incorporate this Attachment F.

Other Attachment F due to Testing after the Deadline

The permittee also submitted another Attachment F with regard to Subpart LLL. The attachment was submitted since the sources named were tested after the 180-day period in which testing was required to be performed. According to the attachment, all of the sources demonstrated compliance with the 10% opacity limit when testing was conducted on March 27 through April 5, 2010. Therefore, a compliance plan is not necessary for these sources, which are: EP04.04.03, CD39.03, CD39.04, CD39.06, CD40.01, CD40.02, CD40.05, CD40.06, and CD48.01.

VI. Permit R14-026E for As-built Revisions of Air Pollution Control Devices

On December 15, 2010, DAQ received the permittee's letter of December 8, 2010, supplementing their operating permit renewal application to make necessary changes regarding air pollution control devices. According to the letter, a review of the as-built plant by Capitol has determined that there are differences in the air pollution control devices (APCDs) currently operating at the plant and the APCDs reflected in permit R14-026D (issued March 31, 2010). To incorporate the as-built changes into the Title V permit, the permittee was first required to modify the underlying permit R14-026D. According to the Fact Sheet for permit R14-026E, the following changes were requested:

1. Capitol is requesting to change the description of eight sources controlled by baghouses in order to better reflect the sources operations at the Plant.

2. Final engineering design of the plant resulted in baghouses which had larger flowrates than what was previously permitted. Therefore, Capitol is requesting an increase in the flowrate of 19 previously permitted sources.

3. Final engineering design of the plant resulted in baghouses which had lower flowrates than what was previously permitted. Therefore, Capitol is requesting a decrease in the flowrate of 16 previously permitted sources.

4. Capitol is requesting permission to keep in operation four existing baghouses. The control equipment design for the truck loadout silos and west bank silos was re-engineered after the September 2009 PSD application. This re-engineering determined that four of the existing baghouses were sufficiently sized to remain in use. Instead of assigning a new permit ID to these sources, Capitol is requesting to use four of the previously permitted Ids and have the permit limit for these sources increased from 0.01 gr/dscf to 0.02 gr/dscf. The seven other new baghouses associated with the truck loadout silos and west bank silos remained as part of the re-engineered design to provide additional particulate control.

5. Capitol is requesting to add five new unpermitted baghouses to be installed in areas of the Plant where additional air pollution control devices are necessary for optimal operations.

6. As a result of ongoing negotiations with the USEPA, Capitol is requesting permission to install a SNCR NO_x control system on the preheater/precalciner kiln system. This SNCR will allow the plant to comply with the future NO_x emissions limit that still currently under negotiation with the USEPA.

7. Capitol is requesting the addition of a previously decommissioned packing system (N.E. Packer-CD23.01). This packing system would be used for emergency situations when the new packing system is offline.

[1] Email dated August 23, 2011, from David Constant, Senior Environmental Engineer for Essroc Italcementi Group.

8. Capitol is requesting to change the language of permit condition A.25 to allow the Finish Mill 1 and 2 air heater to burn propane in addition to fuel oil and natural gas. No increase in emission limits is proposed.

9. Capitol is requesting the flexibility to store various raw materials and fuels within the stone storage bays. The stone storage bays were permitted in R14-026D to contain up to 5 piles of crushed limestone. Capitol would like to change the name of the source to "storage bays - (5 piles)" and increase the PM and PM_{10} limits to reflect the storage of the worst case material.

10. The current permit limits the kinds of alternate raw materials that can be imported due to the limited number of raw material storage bins. To allow for additional alternate raw materials to be imported, Capitol is requesting to add the ability to store inert raw materials in the quarry area. These materials would be stored within the partially enclosed old underground mines. These inert raw materials would then either be introduced to the system by blending with the limestone at the new primary crusher or by being trucked to the alternate material loading bin. This type of hauling and storage of inert raw materials in the quarry area is a historical activity which has been in operation since prior to the construction of the major modification of the Martinsburg plant.

The Fact Sheet for permit R14-026E lists the specific changes to permit R14-026D. The following Table I lists those revisions, and describes where and how they are incorporated into the Title V renewal permit conditions.

Table I – Changes to Permit Conditions

Permit R14-026E		Title V Renewal	
Condition	**Description of Change**	**Condition**	**Discussion of Change**
A.2.	Condition A.2 was revised to include the new emission limits.	4.1.2.	The limit for $PM_{2.5}$ was changed from 217.89 tpy to 222.13 tpy. The limit for PM_{10} was changed from 569.84 tpy to 584.18 tpy. The limit for TSP was changed from 893.63 to 918.44 tpy.*
A.5.	Condition A.5 was revised to change the description of CD37.04.	4.1.9.	Removed the language "New" and added the language "Transfer Tower" to the description of CD37.04.
A.5.	The combined fugitive and point source emission limit in Condition A.5 was changed.	4.1.9.	The TSP limit was changed from 53.04 tpy to 53.51 tpy. The limit for PM_{10} was changed from 36.23 tpy to 36.63 tpy.*
A.7.	Condition A.7 was revised to add CD40.08 along with emission points EP39.07.01, EP39.07.02, EP39.08, EP39.09, EP39.10, EP39.11, EP39.12.01 and EP39.12.02.	4.1.13.	The emission points were added to the condition. However, EP39.07.01 and EP39.07.02 added by the underlying permit were renumbered to EP39.07.04 and EP39.07.05, respectively since EP39.07.01 and EP39.07.02 were already assigned to "Split to Pyrite Silo" and "Pyrite Silo to Feeder". EP39.12.02 is listed in the underlying permit condition with a limit of 0.01 tpy. However, according to the permittee, this was an error and should have been 0.61 tpy. This fact was confirmed with Mr. Steve Pursley (DAQ) who also informed this writer that the legal advertisement for R14-026E included the correct limit. Therefore, the renewal permit will contain the correct limit.
A.7.	The combined fugitive and point source emission limit in Condition A.7 was changed to reflect the addition of CD40.08 along with emission points EP39.07.01, EP39.07.02, EP39.08, EP39.09, EP39.10, EP39.11, EP39.12.01 and EP39.12.02.	4.1.13.	The TSP limit was changed from 34.89 tpy to 51.91 tpy. The limit for PM_{10} was changed from 29.54 tpy to 35.00 tpy.*
A.16.	The description of CD42.01 was	4.1.24.	The description of CD42.01 was changed from

Permit R14-026E		Title V Renewal	
Condition	**Description of Change**	**Condition**	**Discussion of Change**
	revised in Condition A.16.		"Kiln Bypass Dust D\C" to "Cement Fringe Bin D\C".* In accordance with technical correspondence received from the permittee, the aggregate TSP and PM_{10} limits have been revised to account for errors in the underlying permit that incorrectly included emissions from the Reburn Hopper. This fact was confirmed by Mr. Steve Pursley (DAQ). Therefore, the renewal permit will contain the correct limits.
A.17.	The following sentence was added to Condition A.17: "The PH/PC kiln shall be equipped with an SNCR NOx control system in order to comply with a future NOx limit to be determined by USEPA."	4.1.25.	The sentence was added to the condition.
A.18.	CD43.18 was added to Condition A.18.	4.1.39.	CD43.18 was added to the condition.
A.18.	The combined fugitive and point source emission limit in Condition A.18 was changed to reflect the addition of CD43.18.	4.1.39.	The TSP limit was changed from 3.58 tpy to 5.24 tpy. The limit for PM_{10} was changed from 3.04 tpy to 4.45 tpy.*
A.22.	CD43.17 and CD44.17 were added to Condition A.22.	4.1.43.	CD43.17 and CD44.17 were added to the condition.
A.22.	The combined fugitive and point source emission limit in Condition A.22 was changed to reflect the addition of CD43.17 and CD44.17.	4.1.43.	The TSP limit was changed from 152.54 tpy to 153.70 tpy. The limit for PM_{10} was changed from 125.36 tpy to 126.35 tpy.*
A.25.	Propane was added to oil and natural gas as approved fuels.	4.1.46.	The condition was revised to include propane.
A.26.	The table in Condition A.26 was changed to reflect new sources, revised descriptions and revised outlet loadings. Additionally, the combined fugitive and point source emission limits were changed.	4.1.47.	• Added CD45.15. • For CD46.02, the outlet loading was changed from 0.01 to 0.02, and designation changed from modified to existing.* • For CD46.06, the outlet loading was changed from 0.01 to 0.02, and designation changed from modified to existing.* • For CD46.07, the outlet loading was changed from 0.01 to 0.02, and designation changed from modified to existing.* • Added CD22.04, CD22.05, CD22.06, CD22.07, CD22.08, and CD23.01. • There are no fugitive sources for Group 7. However, the point source TSP limit was changed from 39.68 tpy to 60.40 tpy. The limit for PM_{10} was changed from 33.73 tpy to 51.34 tpy.*
A.28.	CD22.04, CD22.05, CD22.06, CD22.07 and CD22.08 were removed from the table in Condition A.28.	4.1.48.	The sources were removed from the condition.*
A.28.	The description of CD22.09 in Condition A.28 was changed.	4.1.48.	The description of CD22.09 was changed from "Dry Flyash Weigh Bin D\C" to "Dry Flyash Bin D\C".*
A.28.	The description of EP03.01 in Condition A.28 was changed to remove the word "stone". This allows Capitol to store other material in the bays. Accordingly, the emission limits were changed to account for worst case materials.	4.1.48.	• The description "Stone Storage Bay - 5 Piles" was changed to "Storage Bays – 5 Piles".* • The TSP and PM_{10} limits for EP03.01 were change from 0.15 tpy and 0.07 tpy to 0.35 tpy and 0.18 tpy, respectively.* • The combined point and fugitive emission

Permit R14-026E		Title V Renewal	
Condition	**Description of Change**	**Condition**	**Discussion of Change**
			limit was changed from 323.11 tpy of TSP to 313.52 tpy. Similarly, the PM_{10} limit was changed from 100.99 tpy to 95.11 tpy.*

* Note that some of the changes discussed above may supersede or otherwise affect changes discussed in Part One, Section I., of this Fact Sheet (*i.e.*, regarding previous underlying permit revisions R14-026C and R14-026D).

Some of the changes mentioned in Table I also require revisions to the Emission Units Table (permit subsection 1.1.), which are described below in Table J.

Table J – Changes to Emission Units Table

Prior to As-built Review	As-built Changes	Additional Explanatory Comments
EU1		
CD37.04 – New Crushing System D/C1 Flow rate: 2,119 cfm	Name changed to "Crushing System Transfer Tower D\C". Flow rate: 4,709 cfm.	This is consistent with the revision in R14-026E, A.2. (Title V cond. 4.1.2.).
EU2		
CD40.01 – Raw Mill High Zone D/C 7,946 cfm	Flow rate changed to 9,005 cfm.	None.
CD40.05 – Raw Meal Airslide D/C 6,357 cfm	Flow rate changed to 4,803 cfm.	None.
CD40.08 was not in the Title V permit.	CD40.08 is added to the Emission Units Table below CD40.07.	CD40.08 is added to the first table in condition 4.1.13. to reflect condition A.7. of R14-026E. Therefore, it is necessary to add CD40.08 to the Emission Units Table.
EP39.08 was the designation for the "Sand Silo" and "Sand Silo Feeder", but was removed as part of the permit minor modification.	EP39.08 is assigned to "Inert Raw Material Truck Dump to Pile".	EP39.08 is added to the second table in condition 4.1.13. to reflect condition A.7. of R14-026E. Therefore, it is necessary to add EP39.08 to the Emission Units Table.
EP39.09 was not in the Title V permit.	EP39.09 is assigned to "Inert Raw Material Storage Pile (Within Mines)".	EP39.09 is added to the second table in condition 4.1.13. to reflect condition A.7. of R14-026E. Therefore, it is necessary to add EP39.09 to the Emission Units Table.
EP39.07.04 was not in the Title V permit	EP39.07.04 is assigned to "Inert Raw Material Hauling to Quarry (Paved)".	None.
EP39.07.05 was not in the Title V permit	EP39.07.05 is assigned to "Inert Raw Material Hauling to Quarry (Paved)".	None.
EP39.10 was not in the Title V permit.	EP39.10 is assigned to "Inert Raw Material Pile Reclaim".	EP39.10 is added to the second table in condition 4.1.13. to reflect condition A.7. of R14-026E. Therefore, it is necessary to add EP39.10 to the Emission Units Table.
EP39.11 was not in the Title V permit.	EP39.11 is assigned to "Inert Raw Material Dump to Primary Crusher".	EP39.11 is added to the second table in condition 4.1.13. to reflect condition A.7. of R14-026E. Therefore, it is necessary to add EP39.11 to the Emission Units Table.
EP39.12.01 was not in the Title V permit.	EP39.12.01 is assigned to "Hauling to Additives Unloading Bin (Paved)".	EP39.12.01 is added to the second table in condition 4.1.13. to reflect condition A.7. of R14-026E. Therefore, it is necessary to add EP39.12.01 to the Emission Units Table.
EP39.12.02 was not in the Title V permit.	EP39.12.02 is assigned to "Hauling to Additives Unloading Bin (Unpaved)".	EP39.12.02 is added to the second table in condition 4.1.13. to reflect condition A.7. of R14-026E. Therefore, it is necessary to add EP39.12.02 to the

Prior to As-built Review	As-built Changes	Additional Explanatory Comments
		Emission Units Table.
EU3		
CD42.01 – Kiln Bypass Dust D/C 8,946 cfm	The description is changed to "Cement Fringe Bin D/C". Flow rate changed to 7,662 cfm.	The description is revised in condition 4.1.24. to reflect condition A.16. of R14-026E. Therefore, it is necessary to revise the description in the Emission Units Table.
CD42.06 – Lime Storage D/C 14,714 cfm	Flow rate changed to 1,000 cfm.	None.
EU4		
CD43.03 – Clinker Storage Feeding D/C 5,297 cfm	Flow rate changed to 7,063 cfm.	None.
CD43.18 was not in the Title V permit.	CD43.18 is added to the Emission Units Table below CD43.13.	CD43.18 is added to the first table in condition 4.1.39. to reflect condition A.18. of R14-026E. Therefore, it is necessary to add CD43.18 to the Emission Units Table.
EU6		
CD43.17 was not in the Title V permit.	CD43.17 is assigned to "Normal Clinker Bin-Bin Vent D\C".	CD43.17 is added to the first table in condition 4.1.43. to reflect condition A.22. of R14-026E. Therefore, it is necessary to add CD43.17 to the Emission Units Table.
CD44.17 was not in the Title V permit.	CD44.17 is assigned to "Finish Mills Reject Bin D\C".	CD43.17 is added to the first table in condition 4.1.43. to reflect condition A.22. of R14-026E. Therefore, it is necessary to add CD44.17 to the Emission Units Table.
EU7		
CD45.08 – Truck Loadout 1 D/C 2,825 cfm	Flow rate changed to 3,178 cfm.	None.
CD45.11 – Truck Loadout 4 D/C 2,825 cfm	Flow rate changed to 3,178 cfm.	None.
CD21.05 – Middle Bank Silos 1 D/C 6,003 cfm	Flow rate changed to 4,560 cfm.	None.
CD21.06 – Middle Bank Silos 2 D/C 6,003 cfm	Flow rate changed to 4,560 cfm.	None.
CD21.07 – Middle Bank Silos 3 D/C 6,003 cfm	Flow rate changed to 4,560 cfm.	None.
CD21.08 – Middle Bank Silos 4 D/C 6,003 cfm	Flow rate changed to 4,560 cfm.	None.
CD21.09 – Middle Bank Silos 5 D/C 6,003 cfm	Flow rate changed to 4,560 cfm.	None.
CD21.10 – Middle Bank Bin Vent 1 D/C 1,001 cfm	Flow rate changed to 1,615 cfm.	None.
CD21.11 – Middle Bank Bin Vent 2 D/C 1,001 cfm	Flow rate changed to 1,615 cfm.	None.
CD21.12 – Middle Bank Bin Vent 3 D/C 1,001 cfm	Flow rate changed to 2,000 cfm.	None.
CD21.13 – Middle Bank Bin Vent 4 D/C 1,001 cfm	Flow rate changed to 2,000 cfm.	None.
CD45.12 – Rail Loadout 1 D/C 1,177 cfm	Flow rate changed to 2,750 cfm.	None.
CD45.13 – Rail Loadout 2 D/C 1,177 cfm	Flow rate changed to 2,750 cfm.	None.
CD45.15 was not in the emission units table.	CD45.15 "Transfer Airslide D\C at the Multi Cell" was added.	None.

Prior to As-built Review	As-built Changes	Additional Explanatory Comments
CD46.01 – Truck Loadout Silo 1 D/C 2,354 cfm	Flow rate changed to 3,323 cfm.	None.
CD46.02 – Truck Loadout Silo 2 D/C 2,354 cfm	An existing baghouse from the old Plant will be used to control this source. Flow rate changed to 7,283 dscfm.	None.
CD46.03 – Truck Loadout Silo 3 D/C 2,354 cfm	Flow rate changed to 2,503 cfm.	None.
CD46.04 – Truck Loadout Silo 4 D/C 2,354 cfm	Flow rate changed to 2,503 cfm.	None.
CD46.06 – Truck Loadout 5 D/C 2,001 cfm	An existing baghouse from the old Plant will be used to control this source. Flow rate changed to 1,791 dscfm.	None.
CD46.07 – Truck Loadout 6 D/C 2,001 cfm 0.01 gr/dscf PM limit	An existing baghouse from the old Plant will be used to control this source. Flow rate changed to 1,791 dscfm.	None.
CD20.04 – East Bank Silos 1 D/C 4,803 cfm	Flow rate changed to 3,800 cfm.	None.
CD20.05 – East Bank Silos 2 D/C 4,803 cfm	Flow rate changed to 3,800 cfm.	None.
CD20.06 – East Bank Silos 3 D/C 4,803 cfm	Flow rate changed to 3,800 cfm.	None.
CD22.04 – Dry Flyash Unloading D/C 9,000 cfm	An existing baghouse from the old Plant will be used to control west bank silos. Name changed to "West Bank Silos 1 D/C". Flow rate changed to 8,769 cfm, and PM limit changed to 0.02 gr/dscf.	Name changed from "Dry Flyash Unloading D/C" to "West Bank Silos 1 D/C" in permit subsection 1.1.
CD22.05 – Dry Flyash Silo #71 D/C 750 cfm	Name changed to "West Bank Silo #71 D/C" and flow rate changed to 1,000 cfm	None.
CD22.06 – Dry Flyash Silo #72 D/C 750 cfm	Name changed to "West Bank Silo #72 D/C" and flow rate changed to 1,000 cfm	None.
CD22.07 – Dry Flyash Silo #82 D/C 750 cfm	Name changed to "West Bank Silo #82 D/C" and flow rate changed to 1,000 cfm	None.
CD22.08 – Dry Flyash Silo #83 D/C 750 cfm	Name changed to "West Bank Silo #83 D/C" and flow rate changed to 1,000 cfm	None.
EP22.04 was under EU8.	EP22.04 is relocated to EU7.	None.
EP22.05 was under EU8.	EP22.05 is relocated to EU7.	None.
EP22.06 was under EU8.	EP22.06 is relocated to EU7.	None.
EP22.07 was under EU8.	EP22.07 is relocated to EU7.	None.
EP22.08 was under EU8.	EP22.08 is relocated to EU7.	None.
CD23.01 – N.E. Packer D/C	Relocated within table.	
CD48.01 – Packhouse D/C 14,126 cfm	Flow rate changed to 13,449 cfm.	None.
EU8		
CD22.09 – Dry Flyash Weigh Bin D/C 7,500 cfm	Name changed to "Dry Flyash Bin D/C" and flow rate changed to 2,750 cfm.	None.
EP03.01 – Stone Storage Bays – (5 piles)	Name changed to "Storage Bays – 5 piles"	None.

VII. **Miscellaneous Revisions**

a. **Permit Structure.** The format of permit section 1.0 was revised to include new subsections 1.1 and 1.2 to set forth the emission units table, and current underlying permits, respectively. This explains why the alphabetic suffix for the permit R14-026D is removed in the citations of authority throughout the permit. Note that proposed subsection 1.1 is previous section 1.0. These changes were made to reflect the most recent version of the Title V permit structure that will facilitate future operating permit revisions.

b. **45CSR6 – *To Prevent and Control Air Pollution from Combustion of Refuse*.** The language of permit conditions 3.1.1. and 3.1.2. was revised to reflect the current rule language.

c. **45CSR34 and 40 C.F.R. Part 61.** The citation of permit condition 3.1.3. was revised to reflect the fact that 45CSR34 now adopts the NESHAPs under 40 C.F.R. Part 61. Also, the specific citation of 40 C.F.R. 61 has been added to reflect the most recent version of the Title V permit "boilerplate" language.

d. **Annual Compliance Certification Submittal.** U.S. EPA has instructed DAQ that permittee's are to submit their annual compliance certification to U.S. EPA via e-mail only (*i.e.*, no paper "hard copies" to U.S. EPA). The language of conditions 3.5.3. and 3.5.5. have been modified to provide for this new stipulation.

e. **Stack Testing Requirements.** DAQ updated the Title V permit boilerplate with a new addition to section 3.3.1. Condition 3.3.1.d. was added along with a change in the citation.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

1. **Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule.** The facility has not made any changes that trigger a PSD modification; therefore, the requirements of the GHG tailoring rule are non-applicable.

2. **45CSR1 – *NO_x Budget Trading Program as a Means of Control and Reduction of Nitrogen Oxides from Non-electric Generating Units.*** This rule was repealed effective May 1, 2009. Therefore, it no longer applies to any emission units located at the facility.

3. **40 C.F.R. Part 64 – *Compliance Assurance Monitoring (CAM)*.** The first rule applicability criterion at 40 C.F.R. §64.2(a)(1) states that "*The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this section;*" 40 C.F.R. §64.2(b)(1)(i) grants an exemption from CAM, on a pollutant-specific basis, to emission units that are subject to "*Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act.*" According to Attachment H of the renewal application, all emission units at the plant are subject to one of the following federal regulations: NSPS Subpart OOO, NSPS Subpart Y, NSPS Subpart F, and NESHAP MACT Subpart LLL. Since these regulations were proposed after November 15, 1990, all of the emission units qualify for the exemption at 40 C.F.R. §64.2(b)(1)(i) and are therefore not subject to requirements of 40 C.F.R. Part 64 for their respective emissions of particulate matter and HAPs.

   The permittee's SO_2 scrubber is an air pollution control device. The SO_2 scrubber is part of the kiln system which is regulated by 40 C.F.R. 63 Subpart LLL, and therefore, according to the permittee's renewal application, is exempt from 40 C.F.R. Part 64. However, this is not a correct conclusion because it overlooks the fact that CAM applies to a *Pollutant-specific emissions unit*, which means an emissions unit is considered separately with respect to each regulated air pollutant (cf. §64.1). Thus, specific pollutants regulated by MACT Subpart LLL are exempt from CAM, but not necessarily other

pollutants emitted from the same source that may meet the applicability criteria under §§64.2(a)(1) through (3).

Emissions of SO_2 from the kiln system meet all three applicability criteria at §§64.2(a)(1) through (3). However, the kiln system exhausts to the Main Stack which is equipped with a Continuous Emission Monitor (CEM) for monitoring SO_2, NO_x, and CO (and THC per the minor modification). Operation of the CEM for these pollutants is required by underlying permit R14-26D, condition B.11., which is already specified in the current Title V permit as condition 5.2.4. (condition 4.2.4. in the renewal since Section 4.0 will be eliminated). Therefore, the exemption criterion at 40 C.F.R. §64.2(b)(1)(vi) is met for SO_2, NO_x, and CO, and the kiln system is exempt from CAM on a pollutant-specific basis for these pollutants.

While the permittee's PH/PC kiln has potential VOC emissions over 100 tons per year, and it has a VOC limit (permit # R14-026D, condition A.15.), it does not use a control device to meet the limitation. According to technical correspondence (8/30/2010 email from permittee), it was outlined in Section 4 (Control Technology Analyses) of the September 2009 application for NSR Permit, that the best available control technology for VOC was determined to be good combustion practices. Further, according to the definition of *Control device* at 40 C.F.R. §64.1, "For purposes of this part, a control device does not include … the use of combustion or other process design features or characteristics". Without a control device the applicability criterion at 40 C.F.R. §64.2(a)(2) is not met and CAM does not apply on a pollutant-specific basis to VOC emitted from the PH/PC kiln.

These non-applicability determinations have been added to the table in permit condition 3.7.2.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: November 30, 2011
Ending Date: December 30, 2011

All written comments should be addressed to the following individual and office:

Denton B. McDerment, P.E.
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Denton B. McDerment, P.E.
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1221 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

Public Comments.
No comments were received from the public (including the permittee).

U.S. EPA Comments.
Comments were received from Mr. Mike Gordon, via electronic mail to the permit writer on December 21, 2011. The comments are given below, followed by the DAQ response to each.

Comment No. 1
MACT Requirements:
A Portland Cement MACT was finalized in September, 2010, and contained both emissions limits that must currently be met and emissions limits with a future compliance date. While the compliance date for certain emissions limits is September 9, 2013, the limits still need to be included in the permit because they are applicable requirements. Any citations referencing previous versions of the MACT need to be updated or removed to reflect the language in the currently effective Portland Cement MACT.

Response to Comment No. 1
All applicable limits and standards from 40 C.F.R. 63 Subpart LLL will be included in the final permit. Therefore, the following changes have been made in the final permit:

(1) Draft permit condition 3.1.22. was intended to specify the compliance date, and the amended limits were given for information. However, based upon the comment, this is a suitable condition to include the applicable limits in the permit and cite the authority for the limits. Therefore, the following changes are made to condition 3.1.22.
   a) The language "Operating Mode: Normal Operation" is added as a title to the first table. This first table lists the limits from rows 1 and 2 of Table 1 to §63.1343(b)(1).
   b) A second table is added with a title "Operating mode: Startup and shutdown". This second table lists the limits from rows 3 and 4 of Table 1 to §63.1343(b)(1).
   c) The citation of authority is revised to also include "**40 C.F.R. §63.1343(b)(1), Table 1, Rows 1, 2, 3, and 4**".

(2) In draft permit condition 3.5.11., another sub-condition (9)(vi) has been added since §63.1354(b)(9)(vi) is an applicable requirement, even though the standards for the pollutants to which it applies will not become effective until the compliance date. The regulation language "and raw material dryer" is not included since the permittee does not employ this type of source.

(3) Draft permit condition 4.1.5. cites 40 C.F.R. §§63.1343(b) and (e) for the 0.30 lb PM per ton of feed limit and D/F limit for an existing kiln. These are the limits effective before the September 9, 2010 amendments. Thus, the condition as-is should have cited only §63.1343(e), Row 1. The citation is changed from "**40 C.F.R. §§63.1343(b) and (e)**" to "**40 C.F.R. §63.1343(e), Table 2, Row 1**". The language "Emissions limits in effect prior to September 9, 2010 for" has been added at the beginning of the condition. The September 9, 2010 amendments to Subpart LLL introduced D/F limits in §63.1343(b), Table 1. These limits (although the same) have been added as condition

4.1.5.1. To eliminate confusion, draft permit conditions 4.1.5.(1) and (2) are changed to 4.1.5.(a) and (b). Note that the amended PM limit is already accounted for in condition 3.1.22.

(4) Condition 4.1.30. correctly cites §63.1343(e) and sets forth the limits of 0.10 lb PM per ton feed and 10% opacity for the clinker cooler. The limits of §63.1343(b) that pertain to the clinker cooler need to be included here as well. In particular, since the source is existing for PM, the limits for an existing clinker cooler will be inserted in the permit. Thus, a new condition 4.1.30.1. has been written. To eliminate confusion, draft permit conditions 4.1.30.(1) and (2) are changed to 4.1.30.(a) and (b).

All permit conditions and citations of authority from 40 C.F.R. 63 Subpart LLL have been reviewed, and compared with the current version of the regulation. Therefore, the following changes have been made in the final permit:

(1) In condition 3.1.25.(i), in the first sentence, the language "§63.1343(b)" is changed to "§63.1343(e)".
(2) In condition 3.1.25.(ii), in the first sentence, the language "§63.1343(b)" is changed to "§63.1343(e)".
(3) In condition 3.3.3.(1)(v), in the last sentence, the braced language "§63.1343(b)(2)" is changed to "§63.1343(e)". In the same condition, the language "§63.1343(c)(2)"(which was the 20% opacity limit) is changed to "§63.1343(e), Table 2, Row 1" that specifies the same opacity limit.
(4) In condition 4.1.5., in the citation of authority, the braced language "§63.1343(b)" is changed to "§§63.1343(b) or (e)" so that it applies to condition 4.1.5. until the compliance date, upon which I it will apply to 4.1.5.1.
(5) In the 45CSR10 Monitoring Plan, Section 4.0, condition 2.(1)(vi)., the same changes were made as in permit condition 3.3.3.(1)(v) described above.
(6) In the 45CSR10 Monitoring Plan, Section 4.0, condition 2.(3)(iv), the language "§63.1344(b)" was changed to "§63.1346(b)".
(7) In the 45CSR10 Monitoring Plan, Section 4.0, condition 2.(1)(vi), the braced language at the end of the condition was changed from "§63.1345(a)(2)" to "§63.1343(e)".
(8) In the 45CSR10 Monitoring Plan, Section 4.0, condition 1., first sentence, the braced language "§§63.1347 through 63.1348" is changed to "§§63.1343(b)(1) and 63.1345".
(9) In condition 3.1.12., at the end of the condition, the parenthetical reference language "40 C.F.R. §63.1348" is changed to "40 C.F.R. §63.1345".
(10) In condition 3.2.1.(4), in the first sentence, the braced language "40 C.F.R. §63.1348" is changed to "40 C.F.R. §63.1345".
(11) In the 45CSR10 Monitoring Plan, Section 3.0, condition 7., in the first sentence, the braced language "§63.1348" is changed to "§63.1345".
(12) In the 45CSR10 Monitoring Plan, Section 4.0, condition 3., the first braced language "§63.1349(e)" is changed to "§63.1348(c)".
(13) In the 45CSR10 Monitoring Plan, Section 4.0, condition 5.(3), the first braced language "§63.1349(e)(1)" is changed to "§63.1348(c)(1)".
(14) In the 45CSR10 Monitoring Plan, Section 4.0, condition 5.(3), the second braced language "§63.1349(e)(3)(i) through (iv)" is changed to "§63.1348(c)(2)(i) through (iv)".
(15) In the 45CSR10 Monitoring Plan, Section 4.0, condition 5.(3)(i), the first braced language "§63.1349(e)(3)(i)" is changed to "§63.1348(c)(2)(i)".
(16) In the 45CSR10 Monitoring Plan, Section 4.0, condition 5.(3)(i), the second braced language "§63.1349(e)(1)" is changed to "§63.1348(c)(1)".
(17) In condition 3.2.5., the reference to paragraphs "3.2.5.(1) through 3.2.5.(6)" is incorrect in the draft permit, as well as in the current regulation at 40 C.F.R. §63.1350(g). The language is changed to "3.2.5.(1) through 3.2.5.(5)".

Comment No. 2

NSPS Requirements:

A permit shield was given from NSPS subpart F for portland cement plants, on the basis that the facility commenced construction after August 17, 1971 and that the facility is exempt because they are subject to the portland cement MACT. A new preheater/precalciner kiln was installed in 2005, and the Portland cement MACT only exempts overlapping requirements from the NSPS. The shield from the NSPS needs to be removed and any non-overlapping requirements need to be included in the title V permit.

Response to Comment No. 2

The draft permit shield states: *Standards of Performance for Portland Cement Plants do not apply to Capitol since Capitol commenced construction or modification prior to August 17, 1971. Capitol is also exempt because it is regulated by 40 C.F.R. Part 63 Subpart LLL*.

First, the draft permit shield was carried over from the current permit. It appears that the permit shield was initially given on the basis that the facility was constructed *prior* to August 17, 1971 – not after this date. Based upon the language of 40 C.F.R. §60.60(b), this would justify the exemption in the current permit.

Second, the pre-amendments version of 40 C.F.R. 63 Subpart LLL (i.e., Portland Cement MACT) provided specific exemptions in §§63.1356(a) and (b) (among which NSPS Subpart F was named) for sources subject to MACT Subpart LLL. However, the current version of 40 C.F.R. 63 Subpart LLL is more broad, and states in §63.1356, "If an affected facility subject to this subpart has a different emission limit or requirement for the same pollutant under another regulation in title 40 of this chapter, the owner or operator of the affected facility must comply with the most stringent emission limit or requirement and is exempt from the less stringent requirement." Thus, an applicability determination must be made concerning NSPS Subpart F. If Subpart F is applicable, then the requirements for pollutants common to both regulations must be compared to determine which is more stringent, and include the more stringent requirement in the final permit.

40 C.F.R. §60.60(b) states "Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart." The following definitions from 40 C.F.R. §60.2 are useful:

> *Construction* means fabrication, erection, or installation of an affected facility.
>
> *Modification* means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

In Part II, Section V. of this Fact Sheet, it was stated that construction commenced of the PH/PC kiln before December 2, 2005. Permit R14-026 was issued on June 2, 2005; therefore, construction or modification commenced after August 17, 1971. Evaluations for each permit revision indicate the changes made.

Evaluation for R14-026A. Class I Administrative Update to remove the requirement to make Condensable Particulate Matter test results enforceable.

Evaluation for R14-026B. The following changes were made to R14-026A: (1) Old condition A.15 was broken up into new conditions A.15 (for Kiln 8, no change) and A.16 (for Kiln 9). Condition A.16 simply added the following phrase to the language from condition A.15 "or before the BART compliance deadline (approximately 2013) whichever comes first". (2) Several references to specific conditions in the permit were updated to reflect the new condition numbering.

Evaluation for R14-026C. "As built" update to address SO_2 control, the shutdown of Kiln 7 and the reconfiguration of some PM sources and controls. Note that since NO_x emissions are increasing from what was previously permitted the netting analysis for that pollutant has to be redone. The PTE of all other pollutants decrease with this modification.

Evaluation for R14-026D. The only requested change to the permit was to decrease the opacity limit in condition A.15 from 20% to 10%. The request was made due to an EPA determination that 10% is the appropriate limit for a combined kiln/clinker cooler stack under 40 CFR 63 Subpart LLL.

Evaluation for R14-026E. Various changes to incorporate additional "as built" conditions into the permit. The class II administrative update was submitted to incorporate “after the fact” as-built design changes to the plant. The only pollutant emissions effected by these changes are Particulate Matter (PM, PM_{10}, and $PM_{2.5}$). Controlled emissions from the as-built modifications will be as follows:

	PM		PM_{10}		$PM_{2.5}$	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
R14-026D Limit	--	893.6	--	569.8	-	217.9
Increase	5.66	24.8	3.27	14.3	0.97	4.2
New PTE	--	918.4	--	584.1	--	222.1

Evaluation for R14-026F. Correct errors in PM limits and emission unit ID nomenclature.

Evaluation for R14-026G. Class II Administrative Update to install a reburn hopper system. The only emissions effected by this change are particulate matter emissions. Facility wide annual particulate emissions before this change are as follows:

	PM		PM_{10}		$PM_{2.5}$	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
R14-026D Limit	--	918.44	--	584.18	-	222.13
Increase	0.07	0.32	0.04	0.15	0.01	0.02
New PTE	--	918.76	--	584.33	--	222.15

The changes associated with R14-026E and R14-026G constitute a physical change in, or change in the method of operation of, an existing facility which increases the amount of PM (for which NSPS Subpart F sets an applicable standard) emitted into the atmosphere by that facility. Therefore, the changes associated with R14-026E and R14-026G constitute a *modification* as defined in 40 C.F.R. §60.2, and NSPS Subpart F applies to the affected facilities in 40 C.F.R. §60.60(a).

The PM standards in NSPS Subpart F will be compared with those in MACT Subpart LLL. The more stringent standard will apply, and the source will be exempt from the less stringent standard (cf. §63.1356). The other pollutant limitations and standards in NSPS Subpart F will be examined to determine how they apply to the affected facility. It should be noted that NSPS Subpart F applies in and of its own self since the facility meets the criteria of 40 C.F.R. §§60.60(a) and (b). Therefore, all emissions limits and standards in NSPS Subpart F are potentially applicable – not just those for the pollutant PM which is in common with MACT Subpart LLL. The following table is an applicability analysis of 40 C.F.R. 60 Subpart F.

Applicability Analysis of 40 C.F.R. 60 Subpart F

Section	Condition	Discussion
Standards		
§60.62(a)(1)(i)	None	This kiln PM limit appears to be applicable because the PH/PC kiln meets the date criteria. The relevant limits to be analyzed are: NSPS: 0.30 lb/ton of feed Pre-amendments MACT: 0.30 lb/ton of feed Amended MACT: 0.04 lb/ton of clinker To determine which limit is more stringent, convert the NSPS limit in lb/ton of feed to lb/ton of clinker. The conversion factor is 1.65 lb feed per lb clinker (cf. calculations in §63.1343(b)(2)). Note that the conversion factor remains the same if units are changed to 1.65 ton feed per ton clinker. Therefore, the NSPS limit is (0.30 lb/ton feed) x (1.65 ton feed/ton clinker) = 0.495 lb/ton clinker. Thus, the NSPS limit is less stringent than the MACT limit 0.04 lb/ton clinker. Since the amended MACT limit is more stringent, the kiln is exempt from being subject to the NSPS limit (cf. §63.1356). Since it is exempt from the NSPS limit, streamlining is not relevant. Further, because of the exemption, the NSPS limit citation is not included in the final permit.
§60.62(a)(1)(ii)	None	This standard is not applicable since construction or modification did not commence after June 16, 2008.
§60.62(a)(2)	None	This section is the 20% opacity limit for kilns. However, the PH/PC kiln is subject to a PM limit in §60.62(a)(1) and uses a PM CEMS (permit condition 3.2.8. and 3.2.16.). Therefore, this section does not apply.
§60.62(a)(3)	None	This NO_x limit applies to kilns if construction, reconstruction, or modification of the kiln commences after June 16, 2008. Since construction of the PH/PC kiln commenced before December 2, 2005, this limit does not apply to the kiln.
§60.62(a)(4)	None	This SO_2 limit applies to kilns if construction, reconstruction, or modification of the kiln commences after June 16, 2008. Since construction of the PH/PC kiln commenced before December 2, 2005, this limit does not apply to the kiln.
§60.62(b)(1)(i)	None	This clinker cooler PM limit appears to be applicable because the clinker cooler meets the date criteria. The relevant limits to be analyzed are: NSPS: 0.10 lb/ton of feed Pre-amendments MACT: 0.10 lb/ton of feed Amended MACT: 0.04 lb/ton of clinker To determine which limit is more stringent, convert the NSPS limit in lb/ton of feed to lb/ton of clinker. Use the same calculation procedure as above for the PM limit in §60.62(a)(1)(i). The NSPS limit is (0.10 lb/ton feed) x (1.65 ton feed/ton clinker) = 0.165 lb/ton clinker. Thus, the NSPS limit is less stringent than the MACT limit 0.04 lb/ton clinker. Since the amended MACT limit is more stringent, the clinker cooler is exempt from being subject to the NSPS limit (cf. §63.1356). Since it is exempt from the NSPS limit, streamlining is not relevant. Further, because of the exemption, the NSPS limit is not included in the final permit.

Section	Condition	Discussion
§60.62(b)(1)(ii)	None	This standard is not applicable since construction or modification did not commence after June 16, 2008.
§60.62(b)(2)	None	The clinker cooler exhaust is monitored with a PM CEMS (permit condition 3.2.8. and 3.2.16.). Therefore, this section does not apply.
§60.62(b)(3)	None	This section is not applicable since the application does not request the PM limit adjustment in §63.1343(b)(2).
§60.62(b)(4)	None	As demonstrated above, the clinker cooler is exempt from the PM standard. Therefore, this NSPS requirement is not applicable.
§60.62(c)	3.1.19. 3.1.20.	This requirement sets a 10% opacity limit for any affected facility other than the kiln and clinker cooler. The affected sources in §60.60(a) other than the kiln and clinker cooler are the "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." This NSPS requirement is similar to the MACT Subpart LLL 10% opacity limit requirement in permit conditions 3.1.19. and 3.1.20. Condition 3.1.19.affects raw or finish mills. Condition 3.1.20. affects raw material storage, clinker storage, finished product storage, conveyor transfer points, and bagging and bulk loading and unloading systems. The only NSPS affected source that is not listed in permit conditions 3.1.19. or 3.1.20. is a raw mill dryer. But, the permittee does not employ a raw mill dryer or raw material dryer. Thus, the MACT requirement and NSPS requirement set the same limit and it is applicable to the same affected sources. Since NSPS Subpart F applies to the affected facilities, and the NSPS 10% opacity limit is not less stringent than the MACT opacity limit, the sources are not exempt from this NSPS requirement. Therefore, this NSPS section will be included in the citation of authority in permit conditions 3.1.19. and 3.1.20. Note that 45CSR16 will also be included in the citations.
§60.62(d)	None	Exemption similar to §63.1345.
Monitoring of operations		
§60.63(a)	None	Section is reserved.
§60.63(b)	None	The kiln is not subject to an NSPS emission limitation on PM, NO_x, or SO_2 emissions. Therefore, this section is not applicable.
§60.63(c)	None	The kiln and clinker cooler are not subject to an NSPS emission limitation on PM emissions. Therefore, this section is not applicable.
§60.63(d)	None	The kiln is not subject to an NSPS emission limitation on NO_x emissions. Therefore, this section is not applicable.
§60.63(e)	None	The kiln is not subject to an NSPS emission limitation on SO_2 emissions. Therefore, this section is not applicable.
§60.63(f)	None	The source is not subject to a requirement to operate a CEMS in 40 C.F.R. §§60.63(c), (d), and (e). Therefore, the requirement to maintain such CEMS according to PS-2 is not applicable.
§60.63(g)	None	The source is not subject to a requirement to operate a CEMS in 40 C.F.R. §§60.63(c) through (e). Therefore, this requirement is not applicable.
§60.63(h)	None	The kiln is not subject to an NSPS emission limitation on PM, NO_x, or SO_2 emissions. Therefore, this section is not applicable.
§60.63(i)	None	This requirement to develop and submit a monitoring plan is upon

Section	Condition	Discussion
		request. Therefore, at this time, such requirement is not applicable.
Test methods and procedures		
§60.64(a)	None	No condition is required for this explanatory section of the regulation.
§60.64(b)(1)	None	The kiln and clinker cooler are not subject to an NSPS emission limitation on PM emissions. Therefore, this section is not applicable.
§60.64(b)(2)	None	The source is not subject to an NSPS emission limitation that requires determination of kiln feed rate. Therefore, this requirement does not apply.
§60.64(b)(3)	None	This section is applicable for determining opacity from a kiln or clinker cooler subject to an NSPS opacity standard in §60.62(a)(2) or §60.62(b)(2). This is determined from the fact that §60.64(b)(4) is specifically for sources other than kilns. Since neither §60.62(a)(2) nor §60.62(b)(2) are applicable, but §60.62(c) does apply, then the appropriate testing is under §60.64(b)(4).
§60.64(b)(4)	3.2.2., 3.2.4., 3.2.7., 3.2.9., 3.2.10., 3.2.15., 3.2.17., 4.2.5., 4.2.12.	For sources other than kilns subject to the NSPS 10% opacity limit in §60.62(c), the permittee must follow the appropriate monitoring procedures in 40 C.F.R. §§63.1350(f), (m)(1) through (4), (m)(10) through (11), (o), and (p). These requirements are already in draft permit conditions. The conditions are specified below. §63.1350(f): 3.2.2., 3.2.4., 3.2.7., 3.2.10., 4.2.5., 4.2.12. §§63.1350(m)(1) though (4): 3.2.17., 4.2.12. §§63.1350(m)(10) though (11): 3.2.17., 4.2.12. §63.1350(o): 3.2.9. §63.1350(p): 3.2.15. Since the opacity limit in §60.62(c) is applicable, this monitoring requirement is also applicable. Therefore, 40 C.F.R. §60.64(b)(4) and 45CSR16 have been added to the citation of authority for the affected conditions.
§60.64(b)(5)	None	The kiln is not subject to an NSPS emission limitation on PM emissions. Therefore, this section is not applicable.
§60.64(c)	None	The kiln and clinker cooler are not subject to an NSPS emission limitation on NO_x or SO_2 emissions. Therefore, this section is not applicable.
§60.64(d)	None	This section provides an exception for opacity data; therefore, this section does not apply.
Recordkeeping and reporting requirements		
§60.65(a)	None	The facility is not required to install a COMS under §60.63(b), and therefore this section §60.65(a) does not apply.
§60.65(b)	None	The facility is not required to monitor visible emissions under §60.63(c), and therefore this section §60.65(b) does not apply.
§60.65(c)	None	The facility is subject to §60.63(c), and therefore this section §60.65(c) does not apply.
§60.65(d)	None	None of the requirements of this section §60.65 are applicable, therefore this section §60.65(d) does not apply.

In summary, the only applicable NSPS Subpart F requirements are the opacity standard in 40 C.F.R. §60.62(c) and the associated monitoring in 40 C.F.R. §60.64(b)(4). These requirements have been incorporated into the final operating permit renewal.

Comment No. 3

Permit Shield from GHGs for PSD:

Blanket permit shields cannot be given for PSD/NSR permitting. The permit shield needs to either cite a specific action (i.e. an R13 permit) where PSD for GHGs did not apply, or the shield needs to be removed from the permit.

Response to Comment No. 3

This particular shield will be removed from the final permit section 3.7.2.

Comment No. 4

Page 73, Condition 4.3.3

Number (3) needs to be updated to have the current language in 60.675(c).

60.675(c)(4) is not in the current subpart, and that condition should be removed.

Response to Comment No. 4

The current language of 40 C.F.R. §60.675(c)(3) has been included to replace the obsolete language in draft permit condition 4.3.3.(3). Draft permit condition 4.3.3.(4) will be removed in the final permit. The citation of authority has been revised to remove §60.675(c)(4).