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KEYSTONE CEMENT COMPANY
P.O. BOX A, BATH, PA 18014-0058 TELEPHONE: (610) 837-1881



June 27, 2014

Via E-mail and Overnight Mail

PA Environmental Quality Board
Rachel Carson State Office Building
16th Floor
400 Market Street
Harrisburg, PA 17101-2301

**RE: Environmental Quality Board
Proposed Rulemaking
Additional RACT Requirements for Major Sources of NOx and VOCs
25 PA. Code Chs. 121 and 129**

2014 JUN 27 PM 1:15

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Dear Sir/Madam:

Please find attached comments of Keystone Cement Company (Keystone) on the above referenced Proposed Rulemaking (Pennsylvania Bulletin, Vol. 44, No. 16, April 19, 2014).

Note that as detailed on Page 2397 of the Proposed Rulemaking, Keystone provided, a "one-page" summary of our comments which were distributed to the Board during the public meeting held on May 29, 2014. Since the public meeting Keystone has also augmented its comments with an additional concern.

Any questions or requests for further information should be directed to the undersigned at (610) 837-1881.

Sincerely,

Jeffery W. Smith, P.E.
Manager, Environmental Compliance

Attachment

cc: Mr. Stephen P. Holt, P.E. (Keystone)

ADMINISTRATION
RT. 329, BATH, PA 18014-0058
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COMMENTS OF KEYSTONE CEMENT COMPANY ON
PROPOSED RULEMAKING
ADDITIONAL RACT REQUIREMENTS FOR MAJOR SOURCES OF NO_x AND VOCs

25 PA. CODE CHS. 121 and 120
PA Bulletin, Vol. 15, No. 16, April 19, 2014

In response to the Pennsylvania Environmental Quality Board's April 19, 2014 Proposed Rulemaking and Request for Cement, Keystone Cement Company (Keystone) submits the following comments on the Proposed Rulemaking for "Additional RACT Requirements for Major Sources of NO_x and VOCs" (herein, "RACT Rule").

1.0 Statement of Interest:

Keystone owns and operates a pre-heater/pre-calciner Portland cement manufacturing facility in Bath, Pennsylvania. The proposed RACT rule applicability is detailed at 25 PA Code, §129.96, which reads, in part, as follows:

“(a) This section and §§129.97-129.100 apply State-wide to the owner and operator of a major NO_x emitting facility or a major VOC emitting facility, or both, that was in existence on or before July 20, 2012, for which a requirement or emissions limitation, or both, has not been established in §§129.51-120.52c, 129.54-129.69, 129.71-129.73, 129.75, 129.77, 129.101-129.107 and 129.301-129.310.”

The Keystone facility is considered a major source of NO_x emissions and was newly constructed and installed in 2009 and therefore, would be subject to various portions of the Proposed RACT Rule. The facility does not currently operate any “add-on” (end of pipe) NO_x control technologies on its cement kiln and based on our initial review of the proposed regulation, the emissions limitations required of portland cement kilns would likely require the significant expenditure of funds for the installation of NO_x air pollution control technologies such as selective non-catalytic reduction (SNCR) systems.

2.0 Response to Comment Request:

2.1 Compliance Schedule:

25 PA Code Section 129.97(a) – requires that facilities “subject to §129.96 (relating to applicability) shall comply with the applicable presumptive RACT requirement or RACT emission limitation...” within compliance within 1 year of publication of the RACT Rule. §129.87(h)(3) of the proposed RACT Rule, as it would apply to Keystone Cement (operating a “pre-heater, pre-calciner kiln”), would require that Keystone comply with a presumptive RACT emission limitation of 2.36 pounds of NOx per ton of clinker. In general, we have legitimate concerns that the Keystone kiln currently may not be able to reliably and consistently meet the specified requirement considering the changes to Clean Air Interstate Rule (CAIR) and the associated NOx Budget Trading Program. Based on our initial assessment, demonstrating compliance with this emission limitation will require the installation of “back-end”, add-on controls, namely a selective non-catalytic reduction (SNCR) system. Installation of such a system will require air permitting and significant capital expenditures, and due to possible lengthy lead times on certain facets of the project, this leads us to conclude that a one-year compliance deadline is not feasible in practice.

Specifically, the installation of this type of equipment would require the following actions:

1. Engineering Analysis and Design:

An SNCR system achieves the control of NOx through the injection of ammonia solution into the kiln exhaust system at a location after the final combustion source. The exact location of this ammonia injection system is dependent upon the site specific design and operation of the source to be controlled. Prior to any permitting procedures being undertaken, a full, detailed engineering and design analysis of the kiln system must be performed so that the chosen injection location, injection rate capacities, and equipment type can be specified. Conservative estimates of the time necessary for this task (conservatively short times) is estimated at six months.

2. *Permitting:*

After the initial engineering analysis and design are complete, the SNCR system would be required to be permitted by the Pennsylvania Department of Environmental Protection. Based on previous experience with the permitting of a similar system at the Keystone facility, it is anticipated that the time necessary for the DEP review and issuance alone, for this type of permitting action, would be one year after the application is deemed complete. Including the time necessary for the preparation and submission of the permit application to the agency, the total time necessary for the permitting of this type of system is at least eighteen months.

3. *Construction:*

The PA Air Regulations preclude the facility from commencing construction on this type of project until the permitting process has been completed by the DEP. Purchase orders for the equipment cannot be issued until permitting is complete, based on the possibility that the chosen system is not approved by the DEP. Therefore, once the control system has been permitted by the DEP, Keystone may then issue a purchase order for the SNCR system equipment and installation. It is anticipated that the installation of the system, including the lead time that may be required to obtain the equipment, would require a minimum of six months to complete.

4. *System Optimization:*

After installation of the SNCR system is complete, a period of equipment shake-down and optimization is required. Sufficient time must be allocated for the facility to establish best operating procedures and optimal injection rates and locations, make any necessary modifications to the injection system and monitoring devices, and perform any necessary programming changes to the facility's data acquisition system. A conservative estimate for this initial optimization period would be 30 to 60 days.

In summary, we do not believe that the proposed compliance deadline of one year is feasible for the design, permitting, installation, and optimization of the NOx control devices that may be required to demonstrate compliance with the proposed RACT emission limitation for "pre-

heater, pre-calciner” kilns. Based on the required actions detailed above, and their estimated time necessary for completion, Keystone believes that a minimum compliance period of 30 months is necessary and appropriate for inclusion into the proposed RACT Rule.

2.2 Cement Kiln Source Categorization:

The proposed RACT Rule includes three separate cement kiln emission limitations based on three sub-categories as follows:

- Long wet kilns
- Long dry kilns
- Preheater and Precalciner kilns

Keystone does not believe that the sub-categorization of the various cement kiln processes is warranted. It should be noted that the EPA has **recently** [emphasis added] promulgated two separate regulations applicable to cement kilns; the NESHAP for Portland Cement Manufacturing Industry (40 CFR Part 63, Subpart LLL) and the New Source Performance Standards (NSPS) for Portland Cement Plants (40 CFR Part 60, Subpart F). Neither of these standards has included sub-categorization of cement kilns, as EPA has determined that the combustion sources are not significantly different enough to merit such consideration. Therefore, Keystone believes that the NOx emissions limitations promulgated in the Pennsylvania RACT Rule should be developed and established as appropriate for the entire source category of cement kilns, including; long wet kilns, long dry kilns, and preheater/precalciner kilns. The only subcategorizing that EPA considers is “new” and “existing” and it must be noted that Subpart F now specifically regulates NOx.

Keystone does not believe that any level of sub-categorization is appropriate. Accordingly, a single source category of “cement kilns” is warranted.

2.3 Alternative Limit Application:

§129.99 of the RACT Rule provides provisions for an “Alternative RACT Proposal and Petition for Alternative Compliance Schedule.” While Keystone strongly supports the

allowance for sources to submit a RACT proposal with an alternative NOx emissions limitation, we are concerned with the proposed implementation requirements for this option. Specifically, §129.99(d)(1) requires that the alternative RACT emissions limitation proposal be submitted with the DEP no later than six months after the effective date of adoption of the proposed rulemaking. However, §129.99(d)(2) still requires the facility to include in the proposal, a schedule for completing implementation of the RACT emission limitation “as soon as possible but not later than” one year after the effective date of the adoption of the proposed rulemaking.

As detailed in Section 2.1 above, we believe that the “normal” one-year compliance schedule for demonstrating compliance with the RACT limitation is not feasible. In the event that a facility were to submit an alternative RACT emissions limit proposal to the DEP within 6 months of the effective date, the facility would be required to wait for DEP approval (or disapproval) of its proposed emissions limit before it could begin the design and air permitting stages of the process. Therefore, implementing facilities would be left with a further-compressed compliance schedule time-frame (i.e.- less than 6 months) to implement the proposed alternative compliance limitation.

Consistent with our comments in Section 2.1 above, Keystone proposes that the compliance implementation schedule in §129.99(d) be revised to require implementation of the alternative RACT emissions limit to 30 months after approval of the alternative compliance limitation.

3.0 Summary:

In summary, Keystone believes that a one year compliance schedules in §§129.97 and 129.99 are not feasible and we request the compliance schedules be increased to 30 months (for §129.97) and 30 months after the approval of the alternative emissions limitation (for §129.99). In addition, we believe that all types of cement kilns should be included in a single source category for purposes of establishing an appropriate NOx RACT limitation.



KEYSTONE CEMENT COMPANY
P.O. BOX A, BATH, PA 18014-0058 TELEPHONE: (610) 837-1881



May 29, 2014

Hand Delivered | Public Meeting Testimony

PA Environmental Quality Board
Rachel Carson State Office Building
16th Floor, 400 Market Street
Harrisburg, PA 17101-2301

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Proposed Rulemaking
Additional RACT Requirements for Major Sources of NOx and VOCs
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Dear Sir/Madam:

As detailed on Page 2397 of the above-referenced Proposed Rulemaking, Keystone Cement Company (Keystone) is providing the following “one-page” summary of our comments to the Proposed Rulemaking. A separate letter, providing our detailed comments will be submitted under a separate cover prior to the close of the public comment period on June 30, 2014. In addition, we may augment and revise this letter if we have additional areas of comments beyond what is presented in this letter prior to the deadline.

- Keystone believes that the one year compliance schedule detailed at §129.97 is infeasible for the design, permitting, installation, and optimization of the NOx control devices that may be required to demonstrate compliance with the proposed RACT emission limitation for “pre-heater, pre-calciner” kilns. Based on the necessary actions, and their estimated time needed for completion, Keystone believes that a minimum compliance period of 30 months is necessary and appropriate for inclusion into the proposed RACT Rule.
- Similar to our comments above, Keystone believes that a one-year compliance schedule for implementing an alternative RACT NOx limitations is infeasible, especially in light of the fact that the alternative limitation may not be approved by the DEP until at least 6 months after the effective date of the Rule. Therefore, Keystone believes that §129.99 of the Proposed Rulemaking revised to include a compliance schedule defined as “within 30 months after approval of the alternative emissions limitation.”

Any questions or requests for further information should be directed to the undersigned at (610) 837-1881, ext. 3213.

Sincerely,

Jeffery W. Smith, P.E.
Manager, Environmental Compliance

cc: Mr. Stephen P. Holt, P.E. (Keystone)

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