



Final Rulemaking Control of NO_x Emissions from Cement Kilns

25 Pa. Code Chapter 145 Subchapter C

**Environmental Quality Board Meeting
Harrisburg, PA
March 16, 2010**

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Final Rulemaking: Control of NO_x Emissions from Cement Kilns

OVERVIEW

- This rulemaking amends Chapter 145, Subchapter C, to revise the emission limitation of nitrogen oxides (NO_x) from cement manufacturing processes.
- The regulation includes revised ozone season NO_x emission limitations, emissions monitoring and reporting requirements.
- Emissions of NO_x are precursors to the formation of ozone and fine particulate matter (PM_{2.5}) pollution, both of which are serious human health and public welfare threats.
- This rulemaking is reasonably necessary to attain and maintain the 8-hour ozone and fine particulate national ambient air quality standard.

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SOURCES AFFECTED AND BENEFITS

- There are 21 cement kilns in Pennsylvania.
- Cement kilns emitted 13,000 tons of NO_x in 2005.
- This final-form rulemaking will reduce NO_x emissions from cement kilns during the ozone season by approximately 1,300 tons or 10% from 2005 levels.

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Cement Kiln Locations in Pennsylvania



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COSTS

- Because owners and operators may surrender Clean Air Interstate Rule (CAIR) allowances to comply if actual emissions exceed allowable limits, control costs were estimated based on cost of NO_x allowances.
- Based on a long-term average CAIR NO_x Trading Program allowance price of \$500, the compliance option of purchasing NO_x allowances would cost the regulated industry approximately \$650,000 per year.



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RULEMAKING TIMETABLE

- February 19, 2008 — proposed rulemaking approved by the EQB.
- April 19, 2008 — proposed rulemaking published in the *Pennsylvania Bulletin* with a 66-day public comment period. (38 *Pa.B.* 1838)
- May 19-23, 2008 — public hearings held in Harrisburg, Wilkes-Barre and Pittsburgh.
- June 23, 2008 – public comment period closed.

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SIGNIFICANT PUBLIC COMMENTS

- Proposed allowable NO_x emission limit should be a site-specific limit in tons of NO_x emitted during the ozone season.
- Data substitution requirements for missing/invalidated monitoring data were punitive and unreasonable.
- Permitting process for installing NO_x controls to achieve the emission results should be streamlined.
- The federal court decision on the federal CAIR may impact the use of NO_x allowances.
- System-wide emissions averaging option should not be restricted to kilns under common control/ownership.

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ADVISORY COMMITTEE REVIEW

- On October 27, 2008, the Citizen's Advisory Committee concurred with the Department's recommendation to seek EQB consideration and approval of the final-form rulemaking, but they expressed concern with system-wide emissions averaging. The Department believes the provision as drafted will not change the environmental benefit of the rule.

- On October 30, 2008, the Air Quality Technical Advisory Committee concurred with the Department's recommendation to move the final-form rulemaking forward, with suggested minor revisions:
 - Require written approval by the Department for using substituted data in place of invalidated monitoring data.
 - Clarify how new cement kilns would be allowed to average their emissions for compliance purposes.

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CHANGES MADE TO THE PROPOSED REGULATION

- Compliance date was extended to May 1, 2011.
- Data substitution provisions were modified to ensure representative data is substituted while maintaining consistency with the Department's Continuous Emissions Monitoring Manual.
- Proposed rulemaking revisions to Chapter 25 Pa. Code 129 were deleted and incorporated in the final rulemaking into Chapter 145, Subchapter C as amendments to the existing EPA-approved cement kiln requirements.
- Emissions averaging requirements were clarified by deleting the averaging provision for new cement kilns because these kilns, like all new sources, are required to control emissions to the maximum extent.

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Final Rulemaking Recommendation:

- The Department recommends that you approve the final-form rulemaking for cement kilns.
- The Department will submit the final-form cement kiln regulation, if adopted, to EPA for approval as a revision to the State Implementation Plan.
- Your consideration of this final rulemaking is greatly appreciated.



pennsylvania

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