June 2, 2006

Wick Havens
Chief, Division of Air Resource Management
Bureau of Air Quality
P.O. Box 8468
Harrisburg, PA 17105-8468

RE: Comments to the Ozone Transport Commission's Control Measures for Cement Kilns

Dear Mr. Havens:

In accordance with the request from the Pennsylvania Department of Environmental Protection (DEP), Armstrong Cement & Supply Corp. (Armstrong Cement) is submitting these comments on the proposed control measures for controlling NOx emissions from cement kilns. It is our understanding that the Ozone Transport Commission (OTC) is considering various control measures for NOx and VOCs, including NOx reductions on cement kilns. Armstrong Cement has reviewed the recommended control measures and has discussed them with other cement manufacturers in Pennsylvania. Some of the following comments are specific to Armstrong Cement while others represent a consensus among the Pennsylvania cement manufacturers.

I. THE DECISION TO REGULATE NOx EMISSIONS FROM ALL CEMENT KILNS IN PENNSYLVANIA LACKS ANY SCIENTIFIC BASIS

It is our understanding that the basis of the proposed control measures is modeled nonattainment with the 8-hour ozone National Ambient Air Quality Standard (NAAQS) in southeastern Pennsylvania and other areas in the I-95 corridor. As a threshold matter, any regulation of industry in Pennsylvania should be designed to address the environmental concern. However, it appears that the OTC control measures target specific industries regardless of the industry's or any individual source's contribution to the modeled ozone nonattainment. Such an "across-the-board" regulation without any modeling or other evidence that the targeted sources cause or contribute to the nonattainment issue is arbitrary. Armstrong Cement questions the logic of such a strategy and urges the DEP to not support such an approach.

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It is our understanding that modeling efforts being pursued by MANE-VU for the purposes of visibility and for BART are capable of distinguishing single source impacts. In fact, the BART–eligible sources need not apply BART if the source does not cause or contribute to visibility impairment in Class I areas. The OTC should be pursuing a similar effort whereby it is not regulating sources that do not cause or contribute to the environmental concern. Something as simple as a metric employing emissions divided by distance could be used to gauge source contributions as has been done by MANE-VU. Larger emitters and sources immediately upwind of the nonattainment areas would logically be perceived as the sources that cause of contribute more to the nonattainment concern. Nonetheless, a modeling run that demonstrates the single source impacts is needed to identify which sources are actually contributing to nonattainment. As a precondition to imposing costly control measures on Pennsylvania sources, the DEP must have some type of scientific demonstration that the emission reductions will actually improve the nonattainment situation.

II. THE COST-EFFECTIVENESS OF THE RECOMMENDED CONTROL MEASURE IS QUESTIONABLE

It appears that the OTC strategy is to impose cost-effective control measures to reduce ozone precursors. If this is the case, the cost-effectiveness of the recommended control measures must be accurate in order to determine which control measures are the most cost-effective. For the cement industry, the OTC concluded that SNCR is cost-effective based on all kilns achieving a NOx emission rate of 2.0 lbs/ton. The entire Pennsylvania cement industry agrees that this is not a realistic assumption. As discussed more fully below, certain types of kilns may be able to achieve 2.0 lbs/ton based on SNCR but all kilns will not. In order to determine the cost-effectiveness of control options, the OTC needs to make more realistic assumptions as to the level of reductions to be achieved by any identified control technology. Until an appropriate and supportable cost-effectiveness evaluation is conducted, the OTC should not proceed with the development of any model rulemaking for the cement industry.

III. PENNSYLVANIA SHOULD CONSIDER THE NEGATIVE IMPACT ON THE COMMONWEALTH'S ECONOMY IN DETERMINING WHETHER TO VOTE TO PROCEED WITH AN OTC MODEL RULE

The control measures being considered for the cement manufacturing industry will have a disproportionate impact on the Pennsylvania economy as compared to the other OTC states. As the DEP has recognized, the majority of cement kilns in the OTC region are located in Pennsylvania. Most of the other OTC member states will suffer no adverse economic impact if an OTC-wide requirement to regulate NOx emissions from cement kilns is imposed. The economic impact on the Pennsylvania cement industry from the recommended control measures will be significant. Armstrong Cement in particular is a small business and operates solely in Pennsylvania. Thus, Armstrong Cement will feel the impact of additional add-on control requirements even more so than companies with multi-state operations.

The key concern that Pennsylvania must consider is the adverse impact on the economy. This concern is amplified by the fact that the OTC has not attempted to determine single source impacts and to narrowly craft a regulatory approach that addresses the environmental concern. Armstrong Cement urges the DEP to consider the negative impact on the economy and on specific companies in assessing whether to proceed with any OTC action that adversely impacts Pennsylvania companies. Only to the extent that Pennsylvania cement plants are determined to be causing or contributing to the nonattainment concern should the DEP proceed with regulating them and only to the extent that the costs to the industry are proportionate to the environmental benefit to be gained. Then, and only then, should Pennsylvania proceed with any effort that will negatively impact the Commonwealth's economy.

IV. THE RECOMMENDED CONTROL MEASURE OF SNCR AND THE ASSOCIATED EMISSION LIMIT OF 2.0 LBS/TON IS BASED ON INCORRECT ASSUMPTIONS

To the extent that the OTC proceeds with any type of model rulemaking, the model rule must recognize the differences in kiln technology. The United States Environmental Protection Agency (EPA) has recognized the difference in kiln types in assessing cost effective controls on cement kilns as part of the NOx SIP call. *See e.g.*, 63 Fed. Reg. 56394, 56416 (October 21, 1998) and documents cited therein. As a result, the EPA proposed different limits for different kiln types in recognition of the emissions achievable after installation of cost-effective controls on different kiln types.

More importantly, the DEP must recognize that the recommended control measure of SNCR is not recognized as an available control measure for wet process or long dry process kilns. The EPA's ACT document for NOx Emissions from Cement Manufacturing concludes that SNCR is not applicable to wet and long dry process kilns based on the difficulties in continuous injection of the reducing agent. More recently, the Portland Cement Association (PCA) submitted comments and a technical paper to the OTC that concluded that "SNCR is not currently commercially available for long wet or long dry kiln systems due to the inability to inject the reagent into the proper temperature zone which is located mid-kiln." Evaluation of Suitability of Selective Catalytic Reduction and Selective Non-Catalytic Reduction for Use in Portland Cement Industry, Robert J. Schreiber *et. al.* (March 2006). *See also* PCA comments on the OTC website. In assessing control options for cement kilns, the Midwest RPO identified SNCR as not being applicable to wet process kilns. *See* Interim White Paper—Midwest RPO Candidate Control Measures, Source Category: Cement Kilns, at p. 10 (March 6, 2006). Finally, Armstrong Cement notes that the National Lime Association (NLA) submitted comments to the OTC regarding the recommended control measure of SNCR on lime kilns in which the NLA referenced the infeasibility of injecting the reducing agent into a rotating kiln. *See* Comments on Draft NOx Control Measure Summary for Lime Kilns, NLA, at p. 4 (March 30, 2006) available on the OTC website. It is our understanding that the OTC and DEP have acknowledged the NLA comments and have, at this time, decided not to pursue a model rule for lime kilns. Armstrong Cement believes that wet and long

dry process cement kilns represent a similar circumstance. Nonetheless, if the OTC proceeds with a model rule for cement kiln NOx reductions, the model rule must consider the differences in kiln technology and be based on commercially available technologies and appropriate emission limits.

V. NOx ALLOWANCE TRADING SHOULD BE ALLOWED ONLY IF AN EQUITABLE TRADING PROGRAM CAN BE DEVELOPED

An allowance trading system has been mentioned by various parties during the public meetings on the OTC NOx control measures. Armstrong Cement believes that regulating the cement industry under a trading program is equitable only to the extent that allowances are distributed in an equitable manner. The electric generating industry has been regulated by various NOx allowance trading programs with apparent success. The DEP should consider that the electric generating industry involves similar types of emission units—fossil fuel fired boilers, and a single cost-effective control measure--SCR. The cement industry itself involves various types of kiln technology that are capable of achieving various levels of NOx emissions based on different types of control technologies. Thus, any allocation system should recognize these differences. If other industrial sectors (*e.g.*, ICI Boilers or glass furnaces) are included in an integrated trading system, the various types of sources and emission levels per unit of production would also need to be considered. Armstrong Cement believes that developing an integrated trading system will prove difficult in allocating allowances to various types of industrial sources. Most importantly, Armstrong Cement does not believe it is equitable to require cement plants or other industrial sources to be required to purchase NOx allowances from the electric generating industry without being allocated a fair share of allowances and being able to trade allowances to the other types of sources. The initial allocation of allowances would need to be revisited such that all sources covered by the trading program would be allocated allowances based on some type of equitable distribution. A system that provides for cement kilns, ICI boilers, glass plants or other sectors to purchase allowances from the existing trading system, in which only electric generating units have received allowances, is inequitable.

Armstrong Cement appreciates the opportunity provided by the DEP to submit comments regarding this important issue. If the OTC proceeds with the development of a model rule for cement kilns, we would similarly appreciate the opportunity to participate in the development of the model rule.

Sincerely,

Richard L. Smith
V.P. Operations

Cc: Michael H. Winek, Esquire