



Buzzi Unicem USA

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SECRETARY'S OFFICE

JUN 27 2014

DEPARTMENT OF
ENVIRONMENTAL PROTECTION

June 26, 2014

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ENVIRONMENTAL QUALITY BOARD

The Honorable E. Christopher Abruzzo, Chair
Environmental Quality Board
Rachel Carson State Office Building
400 Market Street, 16th Floor
Harrisburg, PA 17101-2301

RE: Public Comment on Proposed Rulemaking, Additional RACT Requirements for Major Sources of NO_x and VOCs [25 PA. CODE CHS. 121 AND 129]

Dear Secretary Abruzzo:

Hercules Cement Company L.P. dba Buzzi Unicem USA ("Buzzi"), located in Stockertown, Northampton County, is an affected regulated entity under this proposed rule as a major NO_x emitting facility. We have reviewed the proposed rule and wish to offer the following comments:

1. The proposed definition for "CEMS" states, "All of the equipment that may be required to meet the data acquisition and availability requirements...to monitor, measure, calculate, sample, condition, analyze and provide a **permanent** (emphasis added) record of emissions from an affected unit on a continuous basis." Record retention requirements found in (proposed) §129.100(d)(3) limit records retention to a 5-year period. Additionally, the Clean Air Act limits record retention requirements to two to five years, depending on the source and state requirements. By the proposed definition, CEMS records must be retained permanently, which contradicts the records retention requirement. In addition to this contradiction, retaining continuously monitored data permanently is costly and creates an enormous burden on the regulated community due to the sizes of servers and available memory that must be secured to handle the quantity of data that would be collected and retained for decades or centuries. Buzzi recommends the word "permanent" be removed from the proposed definition of CEMS and that the five-year record retention requirement provided in proposed §129.100(d)(3) be used to establish records retention requirements.
2. Proposed §129.100(g) requires the owner or operator of a combustion unit with a rated heat input between 20 to 50 MMBTU/hr., to record each adjustment conducted under certain procedures in "a permanently-bound log book or other method approved by the Department". With current technology, the need for a permanently bound log book, which implies hard copy given the fact that it must be bound, is outdated. DEP should only be

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concerned that these adjustments are being recorded, and should leave it up to the owner/operator to determine how best to record the information without having to go to DEP and request approval to implement anything other than a hard copy log book. Buzzi recommends DEP only requires the record to be generated and not the format in which it's generated.

3. Buzzi questions the value of DEP's implementing these requirements on a year-round basis rather than just during the months when ozone exceedances are a problem. The current cement kiln regulations, promulgated at 25 PaCode §145.141 et. seq., only limit emissions during the Ozone Season. The very point of the RACT requirements is to have the state achieve the NAAQS. A review of DEP's monitoring data over the past five years, since the 2008 standard was in place, shows 700 exceedances of this standard. Importantly, most of those exceedances occurred during the Ozone Season. More importantly, of the 43 exceedances that occurred outside of the Ozone Season, all occurred in April. So it is quite clear that the ozone problem, as least as far as Pennsylvania is concerned, is a problem only during the months of April through September. In view of these data, imposing a significant cost of control on Pennsylvania Industry to comply with these more stringent RACT limits on a year round basis is a solution in search of a problem. The citizens of the Commonwealth would be better served by DEP's extending the ozone season from April 1 to September 30, and imposing these requirements only during that time period. Since all of PA is designated attainment for NO_x, there is no public purpose for imposing these costs on industry outside the April through September time period. The imposition of additional costs without any public benefit fails the test of economic feasibility inherent in the definition of RACT.

4. Demonstrating compliance with a lbs/ton clinker standard on a 30-day rolling average basis for a cement kiln is more difficult to implement than the relatively straightforward approach being proposed by DEP. While combustion sources with CEMS have the capability to automatically calculate a lbs/MMBTU compliance metric based on stack parameters and fuel input that is closely monitored, most cement kilns do not directly measure clinker production. Most cement kilns measure raw material feed to the kiln and use a kiln feed to clinker factor to estimate clinker production. Cement manufacturing facilities periodically employ procedures to complete physical inventories of raw materials and clinker to validate the kiln feed to clinker ratio being applied moving forward. This ratio is known to change due to many variables and changes within the process. This process results in the demonstration of more meaningful and accurate clinker production data over a longer time period (e.g. monthly) as opposed to short-term data (e.g. hourly).

To generate a meaningful lbs/ton clinker emissions ratio on a 30-day rolling average basis for the purposes of demonstrating compliance, Buzzi recommends using the approach recently finalized by EPA under the Portland Cement MACT Rule (see 40 CFR 63.1350(d)). For those cement kilns not directly measuring clinker production, a permanent weigh scale system must be used to measure and record hourly feed to the cement kiln. Hourly clinker production must then be calculated using the kiln-specific

feed to clinker ratio based on reconciled clinker production determined for accounting purposes and recorded feed rates. The feed to clinker ratio is updated monthly, and if the ratio changes at clinker reconciliation, the new ratio is only used going forward and not applied retroactively.

5. Given the difficulties in maintaining continuous compliance for a cement kiln due to the vagaries of the production process, Buzzi believes it is essential to provide some other compliance mechanism in the event a kiln finds itself out of compliance during any compliance period. The current process of the purchase and surrender of NO_x allowances, as outlined in the current Ozone Season regulations applicable to cement kilns, serves this need handily. Buzzi believes a compliance alternative needs to be included for cement kilns in this program, be it CAIR allowances or some other program NO_x allowances. To ensure that this program does not result in an increase of emissions over what was contemplated in this proposal, Buzzi recommends that any such allowance program require a two-for-one allowance surrender. Such a provision would provide necessary flexibility to the cement industry and would also provide even greater emission offsets in the event a facility found itself out of compliance with the rule as drafted.

6. The averaging provisions of §129.98 unfairly penalize facilities that want to average two or more sources to meet the presumptive RACT limits. The rule anticipates certain emissions reductions in its implementation. If every source meets its limit the intended consequences of the rule are realized. If sources who want to average need to meet a 90% limit, reductions greater than what the rule anticipated will result. The effect of this provision is to force beyond RACT requirements that presumably would not meet the economic effectiveness test of RACT. There has been twenty years of history regulating NO_x emissions under RACT, cap-and-trade budget programs, and other measures applying to existing sources, none of which established a penalty for source averaging. Current RACT requirements are simply that the emissions from averaged sources are "less than" the emissions that would be achieved individually. That is all that is required to make sure averaging is done to the benefit of the environment. The rules for stationary RICE and the current cement manufacturing rules at Chapter 145, as well as the five County rules for boilers, turbines, and RICE and the rules for glass furnaces at Chapter 129 all allow facility wide averaging as well as averaging at multiple facilities under common control, without penalty. The NO_x Budget Program and the CAIR rule, while not providing directly for averaging of sources, indirectly allow this practice through the transfer of excess allowances between sources under the control of the owner of the allowances, again without any discount. The proposed CSAPR FIP would also allow trading equivalent to averaging without penalty. So with twenty years of history involving over ten NO_x regulations that directly or indirectly allow for averaging without penalty, it is difficult to understand why DEP has now come to the conclusion that more restrictive requirements should apply to sources that average their emissions in order to comply.

Secondly, and from a practical standpoint, if a source can average its emissions to be less than the presumptive limit, but cannot meet the 90% limit without additional controls, the

facility operator would likely go through the case-by-case analysis. This will cause a heavier work load on the Department and will likely result in less stringent emission reductions in the end because the beyond RACT controls would be uneconomical. The Department should encourage, not discourage the presumptive RACT limits and Buzzi believes the unnecessary, and unprecedented 90% limit does the latter. Buzzi encourages DEP to drop this unnecessary restriction and follow long standing practice on this issue.

7. Specifically to Portland cement kilns and the averaging approach, the proposed rule does not provide a relevant mechanism for demonstrating compliance. The proposed rule only addresses how emissions in lbs/MMBTU are to be averaged. A section must be included addressing how cement kiln emissions in lbs/ton of clinker are to be averaged for purposes of demonstrating compliance.

8. The proposed rule fails to address the common issue of multiple units having a single stack, which is a common element addressed in detail in all of the EPA trading programs. This issue is of paramount importance to Buzzi, since the facility is configured such that two kilns combine exhaust gases upstream of a single stack that employs one NO_x CEMS on the common stack. In the case of multiple units exhausting into a single stack, the rule should allow for calculating the combined total allowable emissions of individual sources and summing those into an allowable total for all combined sources. The stack CEMS would then be used to record actual mass emissions for comparison with the compliance metric. In the case of Buzzi, each kiln would multiply its clinker production by its allowable emissions factor, as established by the rule, and these per-kiln allowable emissions would be summed for facility total pounds of NO_x. This value would then be compared to the actual total mass emissions from the stack for the same period, as verified by the CEMs.

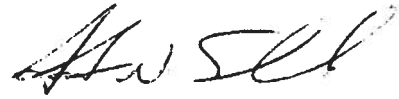
This issue causes further concerns regarding the facility averaging 90% restriction in that if that restriction were maintained in the final rule, two different facilities with the exact same sources could have different compliance limits based on whether they had combined or individual stacks. That hardly seems like a factor that should determine the emission limits for a facility and, through the cost of controls, disproportionately penalizes one facility in relation to a competitor, in a very competitive industry.

9. The proposed rule at §129.100(i) requires that cement kilns maintain a daily operating log including:
 - (1) The total hours of operation.
 - (2) The type and quantity of fuel used.
 - (3) The quantity of clinker produced.
 - (4) The date, time and duration of a start-up, shutdown or malfunction of a Portland cement kiln or emissions monitoring system.

Cement kilns are subject to a lbs/ton of clinker standard, so the requirement to record fuel use seems misplaced here. Also, the cement kiln limits apply at all times, including malfunctions, so there is no logical reason why the Department would need malfunction logs to assess compliance with this rule. Malfunction records are already required under Title V boilerplate conditions and need not be repeated here.

Thank you for the opportunity to comment on these very important issues.

Sincerely,

A handwritten signature in black ink, appearing to read "ASW", written in a cursive style.

Adam N. Swercheck
Director, Environmental Affairs
Buzzi Unicem USA Inc.