



Oregon

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September 3, 2009

EPA Docket Center (6102T)
National Emission Standards for Hazardous Air Pollutant
From the Portland Cement Manufacturing Industry Docket
Docket ID No. EPA-HQ-OAR-2002-0051
1200 Pennsylvania Ave., NW, Washington, DC 20460
Per e-mail at: a-and-r-docket@epa.gov

Dear Administrator Jackson,

Thank you for the opportunity to comment on the proposed National Emission Standard for Hazardous Air Pollutants (NESHAP) for the Portland Cement Manufacturing Industry (Docket ID No. EPA-HQ-OAR-2002-0051). We commend EPA for proposing a rule that will significantly reduce mercury emissions.

The Oregon Department of Environmental Quality (ODEQ) is the agency that implements the NESHAP program in Oregon. We are offering these comments to provide additional background about an Oregon facility that will be subject to the rule so that EPA is able to make a fully-informed decision that ensures the best environmental and public health outcome.

ODEQ's mission is to be a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water. One of our four strategic directions is to protect Oregonians' health and the environment from toxic pollutants by preventing and reducing toxic chemical releases and cleaning up and reducing risks from toxics already in our environment. To implement this, we have developed a toxics reduction strategy, and mercury is a major focus of this effort. We measure our success by tracking the pounds of mercury reduced from the environment.

Background on ODEQ's Order to reduce mercury emissions at the Ash Grove Cement Company

Oregon has one major cement manufacturing facility that will be subject to the NESHAP, the Ash Grove Cement Company plant in Durkee, Oregon. Durkee is a small community in Baker County in the eastern part of the state with a population of 654. Ash Grove Cement employs 116 people. ODEQ permits this plant under the Title V Operating Permit Program. In 2006, ODEQ discovered the level of mercury emissions from the Ash Grove plant when an ODEQ permit engineer reviewed source test data and discovered that the company had inadvertently under-reported its emissions to the Toxic Release Inventory (TRI). The company recalculated its emissions and submitted a revised TRI report showing the mercury emissions at over 2,000 pounds per year. Later that year, we directed the company to conduct extensive emission and ore testing to better quantify and specify emissions from the facility. The results confirmed the high level of mercury emissions from the plant at approximately 2,500 pounds per year. Of

this, 63 percent was in the oxidized phase, 28 percent was in the elemental phase and 9 percent was particulate bound. The testing also confirmed that the primary source of emissions was an unusually high concentration of naturally occurring mercury in the limestone ore (average of 1.1 to 1.43 ppm or 1,100 to 1,430 ppb), as well as high concentrations in other raw materials mined on site including shale and clay.

ODEQ then formed an advisory committee to help develop a mercury reduction plan for the Durkee plant. The committee included tribal representatives, representatives from public universities, public health departments, environmental organizations, county commissioners, members of the public and the Ash Grove Cement Company. The committee met during September and November of 2007 and considered emissions from raw material handling, the raw mill system, fuel systems, the pyroprocess, the cement mill, cement storage and shipping and the main baghouse. The committee then evaluated all possible control technologies that could reduce mercury emissions from the plant.

After considering these control technologies, the committee recommended that the plant install activated carbon injection with a fabric filter, which has proven effective in the utility industry at removing both elemental and oxidized mercury. To our knowledge, this has not been installed in any other Portland cement plant in the country, so it represents a technology-forcing level of control. In the preamble to the proposed rule, EPA notes that this control technology is “the best control technology currently available so far as is known.” (74 Federal Register 86, 6 May 2009, p. 21148). Based on pilot testing of an activated carbon unit at the facility, the committee recommended that the plant achieve an 85 percent reduction in mercury emissions if feasible in the full scale application, with a minimum of 75 percent reduction required. The committee’s final report is attached to these comments.

In July 2008, ODEQ and the company entered into an enforceable Mutual Agreement and Order. A copy of this MAO, DEQ number AQ/V-ER-08-022, is attached. The agreement requires the company to complete construction and achieve a 75 percent reduction in mercury emissions by July 2010, and then spend up to the next 18 months fine-tuning the system to achieve an 85 percent reduction if technically feasible. The agreement includes stipulated penalties for violations of the order. At the present time, the project is under construction. The MAO will result in emission reductions well in advance of the proposed NESHAP, which has an effective date of three years after promulgation.

DEQ Comments on EPA’s Proposed NESHAP

In the preamble to the proposed rule, EPA notes that even with the advanced emission controls required by the MAO that “closure of [The Ash Grove Company] kiln and possibly other high mercury emitting kilns is a possible consequence of a single standard without subcategories” (74 Federal Register 86, 6 May 2009, p. 21148).

ODEQ believes that it is important for the EPA to evaluate the potential emissions from the production and transport of replacement cement for those markets affected by plant closures. It does not appear that EPA has addressed this issue in the preamble to the proposed rule, so we recommend that EPA

thoroughly evaluate this before finalizing the rule to ensure that the final rule results in a net environmental benefit in the event that it causes closure of cement facilities.

In the preamble, EPA also notes that it “may create subcategories which distinguish among ‘classes, types, and sizes of sources.’ Section 112(d)(1).” (74 Federal Register 86, 6 May 2009, p. 21144). EPA then “solicits comment addressing all aspects of determinations whether or not to subcategorize.”

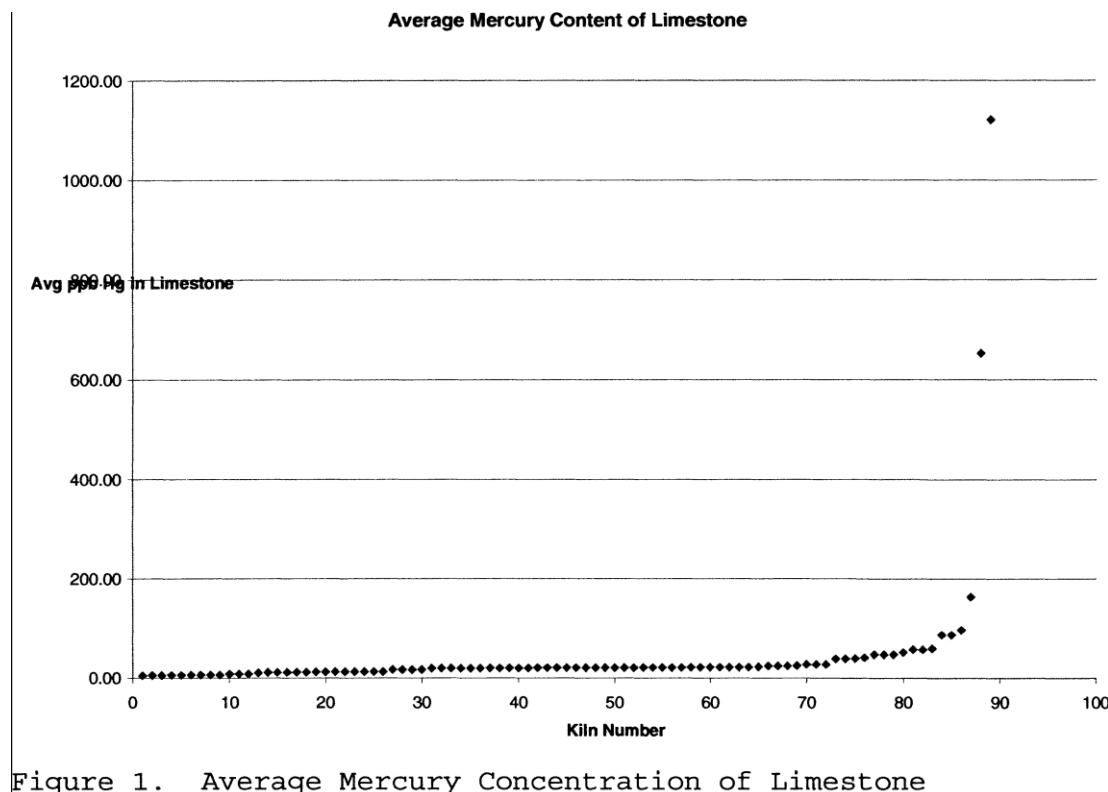


Figure 1. Average Mercury Concentration of Limestone

EPA however concludes that data “do not readily support a sub categorization approach—putting aside for the moment the high mercury limestone kilns, which are discussed separately.” (74 Federal Register 86, 6 May 2009, p. 21146). EPA further notes that much of this analysis “does not apply to the kilns at the far end of the distribution, . . . which have the highest quarry mercury contents which quarries appear to be outliers from the general population.” (74 Federal Register 86, 6 May 2009, p. 21148). EPA indicates that it decided not to propose a subcategory for the outlier facilities because “their emissions limit would potentially be 500 to 800 lb/MM tons clinker, which is well above any other kiln, even when uncontrolled, in our data base, and 8 to 13 times the floor established for other existing sources” (74 Federal Register 86, 6 May 2009, p. 21148). ODEQ notes that the farthest right data point on Figure 1 represents the Ash Grove Cement plant. Even after implementing the MAO-specified controls, and considering the source of the ore and current efforts to control mercury emissions, as EPA notes above, the Durkee cement kiln mercury emissions will likely remain the highest in the nation for a cement plant.

ODEQ is not providing a recommendation on sub categorization. As we have noted, we do encourage EPA to evaluate reductions in mercury that would be achieved from closing the facilities and the offsetting emissions from the production and transport of replacement cement when determining the net environmental benefit of the new regulations. If EPA chooses to establish a subcategory for facilities with extremely high mercury content ore, we recommend that it require the highest level of control achievable for that subcategory, considering measures such as dust shuttling, in addition to the measures required in the MAO for the Ash Grove Cement Company.

Thank you for this opportunity to comment on this important matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dick Pedersen".

Dick Pedersen
Director
Oregon Department of Environmental Quality

cc:

Joni Hammond, Deputy Director, Oregon Department of Environmental Quality
Andy Ginsburg, Air Quality Administrator, Oregon Department of Environmental Quality