

Mercury Emissions and Cement Manufacturing
Issues and Status
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Emission control regulations for cement kilns have historically focused on criteria pollutants. Over the past several years, regulations for more stringent control of hazardous air pollutant (HAP) emissions have also been adopted. This issue paper focuses on Mercury and its impact on the Cement Industry by presenting the results of a study designed to: (1) determine the mercury content of raw materials and fuel, (2) develop an understanding of the incorporation and removal mechanisms within the cement manufacturing procedures used by a long wet kiln cement manufacturing facility, (3) establish the mercury content of products and byproducts, and (4) determine the mercury content of the stack gas. Large quantities of materials are processed and a large volume of stack gas is produced during the manufacturing of cement. In order to achieve a high level of agreement on the mass balance between inputs and outputs and to evaluate the incorporation and removal mechanisms, sampling and analysis procedures were developed and designed to report mercury concentrations at the sub-parts per billion levels. Environmental Quality Management Inc. (EQ) was contracted by Lafarge to provide technical assistance in the preparation and implementation of the project work plan. This paper presents the information needed to characterize the sources and distribution of mercury within the Long Wet Cement Plant located in Ravena New York.