Impacts of changes in coal supplies and in environmental controls on fly ash petrology and chemistry

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KEYWORDS: fly ash carbon; mercury; environmental impacts

ABSTRACT

In response to evolving clean air and mercury emission regulations, utility coal-fired power stations have changed coal supplies or changed the design of the pollution control systems or, in most cases, changed both. As a consequence, the chemical and petrographic nature of coal combustion fly ash has changed. For example, with the installation of flue gas desulfurization equipment, a power plant that once produced a low-Fe fly ash from the combustion of low-sulfur Central Appalachian coal, now produces a high-Fe fly ash from the combustion of high-sulfur Illinois Basin coal. We will discuss several examples of the impacts of shifting coal supplies and evolving pollution controls on fly ash quality.