

1st Full Scale Installation of Ash Treatment for Ammonia Control

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ABSTRACT

The first full scale system for treating ammoniated fly ash was installed in late 2003 at a 250 MW power generating station employing selective non-catalytic reduction units for NO_x control. The system was ready for operation prior to the May 2004 NO_x season. The Ammonia Slip Mitigation (ASM) process consists of a system for the accurate addition and blending of chemical reagents with fly ash during ash load-out operations. The system was used to treat fly ash with a dry or wet oxidizing reagent to mitigate the effect of ammonia in ash for concrete and flowable fill applications. The process and equipment described herein could also be used to treat ash with any other dry or liquid agents to improve ash quality or impart a specific product performance attribute. The system consists of accurately and reliably controlling and measuring the mass flow of fly ash, adding the appropriate reagent dosage, blending the reagent in the ash and conveying the blend to a truck. This concept represents a space efficient and cost effective means of accurately treating ammoniated ash.

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