

# **Utilizing On-Line Carbon-In-Ash Analysis with Selective Hopper Evacuation to Improve Salable Ash Yield**

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## **ABSTRACT**

**Following recent conversion to Low-NOx burners, a PP&L Generating Station experienced a significant decline in the production and sale of cement quality fly ash. As a result of technical discussions between Solvera and PP&L engineers, a detailed study was conducted to determine both the particle size and combustibles distribution throughout the post-ESP hopper system. As might be expected, a stratification of both carbon collection and particle size distribution was discovered. However, the level of unburned carbon from field to field varied significantly based on both the time of year and the fuel burned.**

**Solvera has developed an unburned carbon analyzer (CAMRAC) with a high speed transport line sampling system suitable for on-line measurement of LOI in ash systems. This paper will discuss the results of dynamically coupling real-time LOI measurements with the ash evacuation control system to segregate salable ash from salable ash in an effort to maximize compliant ash capture and plant ash sale profitability.**

