

# Commercialization Status of a Pneumatic Transport, Triboelectrostatic System for Carbon/Ash Separation

Charles A. Lockert<sup>1</sup>, Robert Lister<sup>2</sup> and John M. Stencel<sup>3</sup>

<sup>1</sup> Solvera Controls/Stock Equipment Company, 16490 Chillicothe Road, Chagrin Falls, Ohio 44022; <sup>2</sup> Boral Material Technologies Inc., 45 Northeast Loop 410, Suite 700, San Antonio, TX, 78216; <sup>3</sup>Tribo Flow Separations, P.O. Box 12366, Lexington, KY, 40583

KEYWORDS: Beneficiation processes, triboelectric, combustion ash

## ABSTRACT

Much has been reported in recent years on the development of pneumatic transport, triboelectric separation technology for dry beneficiation of combustion fly ash. As an alternative to carbon burnout, floatation, or mechanical transport triboelectric methods, this approach holds the potential for combining low capital cost, low operating costs and high performance.

Solvera Controls has partnered with Tribo Flow Separations to bring this technology to full-scale commercial and technical viability. This paper will discuss the results of the first implementation of the TFS technology in a commercial power plant environment. This implementation was accomplished in collaboration with Boral Material Technologies. Processing details and test results are described relative to the combustion ashes that were processed. The overall processing protocol, system configuration, and carbon-ash separation performance are presented.