

Current Status of Spray Dryer Absorber Material Characterization and Utilization

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ABSTRACT

In response to changing SO₂ emission regulations, utilities are considering flue gas desulfurization (FGD) technology options, and it is estimated that spray dryer absorbers (SDA) may be the preferred option for many coal-fired power plants in the western United States. The increased production of SDA material is anticipated to be a challenge to industry because the current utilization rate for SDA material is 9.7%. Research to identify additional use applications for SDA material was initiated by the EERC through an extensive literature review to assess the current state of the knowledge regarding the characterization and utilization of SDA material. Information was assembled from a wide variety of domestic and international sources. Collected data on physical properties, chemical composition, and mineralogy from the literature review is compared with a set of SDA materials produced in the United States. A summary of current and potential commercial uses as identified through the literature search will be presented, and these uses will be categorized based on the characteristics of SDA materials most suited to specific applications. Recommendations on the best options to increase the most beneficial utilization of SDA material are presented.

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