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	Rotarty Dumper Wet Dust Extraction Project	Date:	3/15/2011
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Abstract

The case study describes the implementation of a Wet Dust Extraction installation to control PRB Coal dust generated at a Rail car rotary dumper. The installation is located in the mid-western United States at a large coal terminal. This Terminal supplies PRB coal to several eastern fleet power plants and various other customers. Over the last 3 years the coal terminal has averaged trans-loading approximately 14 million tons of PRB coal per year plus an additional 2 million tons of Illinois / Colorado coal per year.

The paper briefly describes the operation and reasons for changing from a Bag-house "dry" dust collector system to a Wet Dust Extraction system. A major consideration is the reduction of explosion risk associated with PRB coal. Other considerations include problems associated with wet coal dust blinding off the filter media, bag maintenance and implementing a system that compliments the water suppression currently being used during the unloading process. Although safety was a huge driving force with the conversion from a dry to a wet system, the other improved dust control, maintenance advantages, and the removal of fine dust early in the material handling process contributed significantly as well.

The discussion will include the implementation of retrofitting the Rotary Dumper with the new wet dust extraction system. The final discussion will focus on commissioning and the effectiveness of the new wet dust extraction system.

Presenters to be Tim W. Warden General Manager of Englo Inc. and Martin DeNysschen Vice President of Engineering

