

# **Understanding Pipe Wear in Fly Ash Pneumatic Conveying Systems**

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Abstract: The design of efficient and durable pneumatic fly ash piping systems requires a thorough understanding of both the behaviors of the material to be conveyed and the physical properties of the various piping materials available for construction. Of key importance in the effective design of these systems are factors such as the air retention properties of the material, operating temperatures, the required overall conveying distance, and the required conveying rate of the system.

This presentation will address common Owners' concerns such as:

Why does one ash system conveying line wear a hole through in one week, while another has only polished internal surfaces after being in service for over ten years?

Why does one pressure conveying system frequently experience plugging problems, while another never experiences them?

What are the practical limitations of long distance conveying systems?

What ash handling problems should we anticipate when the plant switches fuels to PRB coal?

Information from numerous plant retrofit and upgrade projects will be integrated into the session to offer practical approaches for improving the reliability and service life of pneumatic ash handling systems.

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