

Dewatering a Dry Fly Ash Stack The Piggyback Part 1

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ABSTRACT

Possibilities for lowering an elevated phreatic level in dry fly ash stack are investigated in anticipation of permitting a lined landfill on the stack. Ongoing geotechnical investigation indicates elevated phreatic levels within the stack and results of stability analyses indicate elevated phreatic levels are limiting factors of safety to less than TVA standards. Historical data from TVA research indicates a cyclic relationship between phreatic levels in the stack and changes in season. Additional areas of investigation scheduled for completion in Spring 2011 center on areal extent of elevated phreatic level, laboratory testing of ash for dewatering potential, and analysis of effects of capping stack with Sub-Title D bottom liner system. Intermediate measures anticipated for completion in Summer 2011 include installation of well-points and regrading of existing cap to reduce infiltration. Overall goal is two-fold: demonstrate existing stack can be improved to meet TVA standards “as-is” and demonstrate stack can provide a foundation sufficient to support lined coal-combustion residuals landfill.

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