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**Recovery and Regeneration of Activated Carbon for Mercury Capture in
Pulverized Coal Boilers**

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Abstract

This project addresses the issues of Hg on activated carbon and fly ash from a materials re-use point of view. It also addresses the possible connection between Selective Catalytic Reduction (SCR) reactors, fly ash properties and Hg capture. The project will determine the feasibility of separating AC from fly ash in a fluidized bed and of regenerating the separated AC by heating it to elevated temperatures in a fluidized bed. The project will also determine the temperatures needed to drive off the Hg from the ash in a fluidized bed. Finally, samples of fly ash from power plants with SCR reactors for NO_x control will be analyzed to determine the effect of SCR on the ash. These analyses will also determine the properties of ash that are important for Hg capture. Partner organizations include the U.S. Department of Energy, FirstEnergy, PPL Corporation (PA), Southern Company, and Detroit Edison.