Designing Advanced Activated Carbons for Enhanced Mercury Capture

Roger Cayton, Jacob Lowring, and Joe Wong
ADA Carbon Solutions

EPA's Mercury and Air Toxic Standards requiring stringent emission controls for coal-fired electric generating unit (EGU) power plants will be enforced beginning April 2015. Mercury control levels will be approaching 85-95% reduction of current non-controlled levels. Powdered activated carbons (PACs) have been demonstrated as the leading technology for achieving compliance. We will discuss the design of advanced PACs for effective mercury capture and co-benefit integration with the EGU's air quality control system (AQCS). Laboratory and full-scale testing results will be presented for a variety of coal fuel and EGU AQCS processes and operating conditions.