

BURNING SOLVENT REFINED COAL. Richard D. McRanie, Southern Company Services, Inc.
Birmingham, Alabama 35202

Three thousand tons of solvent refined coal (SRC), manufactured at a Pittsburg & Midway plant in Tacoma, Washington, were successfully shipped to and burned in a Georgia Power Company 22.5 MW coal-fired utility boiler. The test demonstrated that SRC can be shipped in standard, open coal cars when treated with a commercially available coating spray to minimize blowing losses. Dust created in the conveyor system while loading and unloading the SRC can be controlled with a wetting agent spray. SRC was stored, pulverized, and burned with only minor modifications to existing power plant equipment. No modifications were necessary to the coal conveying equipment or the coal storage bunkers. The pulverizers were modified only to the extent that cold primary air was used and ball spring pressure was reduced. The only boiler modification was the installation of water-cooled, dual register burners. Emissions tests were performed while burning SRC and demonstrated that SRC is an acceptable fuel for meeting current EPA New Source Performance Standards for SO₂ and NO_x. The particulate emissions were greater than anticipated due largely to unburned carbon, a common problem with boilers of this vintage (1946). The particulate problem can be handled with a modern precipitator. Boiler efficiency tests were performed and indicate that efficiency when burning SRC is essentially the same as when burning coal. SRC was shown to be an exceptional boiler fuel from an operating standpoint. Soot-blowers, which normally have to be used 6-12 times a day, were not used at all during the 18-day test burn. The amount of flyash and bottom ash is significantly reduced. This will reduce ash system operating time and maintenance. The fact that SRC is brittle and easy to pulverize should reduce pulverizer maintenance.