Revamping of a 75t/h pulverized coal fired boiler to a 65t/h oil shale-fired high-low bed CFB boiler

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Circulating fluidized bed (CFB) combustion technology is an advanced technology for burning oil shale. A 75 t/h pulverized coal-fired boiler has been successfully revamped to a 65 t/h oil shale-fired CFB boiler employing high-low bed CFB combustion technology. The 65t/h boiler was installed in Suixi cement factory, Guangdong province, China, and put into operation in 2007. The designed fuel is oil shale that comes from the Maoming deposit, Guangdong province. The average low heating value is about 4110 kJ/kg. The performance test showed that the main technical and economic parameters have met the design requirements, which can provide a theoretical and technical basis for the design and operation of large oil shale-fired CFB boiler.