



Technical Article

Coal Slurry Storage and Reclaim Facility

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The Mohave Generating Station, located in the southern tip of Nevada, is a coal-fired power plant with two units at a power rating of 790 MW each. The coal plant is jointly owned by Nevada Power, Southern California Edison, Salt River Project and L.A. Department of Water and Power and is operated by SCE Firm operation dates of the units were April 1 and October 1, 1971. Base fuel for the boilers is pulverized coal, delivered to the station via a 275 mile, 18" pipeline in the form of a coal-water slurry. It is necessary to store coal onsite to sustain operations during periods when coal deliveries may be interrupted due to operational problems with the coal mine or the pipeline. When stored, the coal in the slurry settles out, but to be suitable for station use, it must be re-slurried and returned to the Station's active slurry tanks. The construction of circular ponds for additional onsite storage and the installation of the Marconaflo DYNAJET coal reclaim system with those ponds have provided more adequate, reliable and economical facilities for the storage and reslurry of coal at the station.

The Mohave Generating Station, located near Laughlin, Nevada at the southeastern tip of the state, is a participant-owned, coal-fired power plant with a combined unit rating of 1580 MW. The plant site is comprised of 2500 acres of land and is situated near the Colorado River directly across from Bullhead City, Arizona where ambient temperatures range from 25°F to 125°F. The generating facility, consisting of two 790 MW units, is jointly owned by the Nevada Power

Company, the Southern California Edison Company, the Salt River Project Agricultural Improvement and Power District, and the Los Angeles Department of Water and Power. Firm operation began in 1971 under the management of the Southern California Edison Company.

The plant's steam generators were designed and constructed by the Combustion Engineering Company. Each steam generator is rated to provide 5,587,000 lbs/h of 3500 psig steam at 1000°F superheat temperature to the General Electric turbine-generators. Design reheat conditions to the turbines is 644 psig at 1000°F. Base fuel for the tangentially fired, supercritical boilers is pulverized coal from a total of twenty Raymond bowl mills located symmetrically on each side of the units. Particulate removal from the exit flue gas streams is accomplished by electrostatic precipitators which remove 98.6% of the fly ash passing through the two boilers and exiting through the common 500-ft stack.