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INVESTIGATION OF PRESSURE PULSATIONS IN THE FURNACE AND FLUE GAS TRACT OF THE PULVERIZED COAL COMBUSTION UTILITY BOILER

ABSTRACT

The paper presents new experimental method developed and new installed into flame-gas tract of utility boiler. Investigations have boiler of unit 2 at TPP "Ptolemais", Ptolemais, Greece, which suffer combustion and great pressure oscillations. Experimental method system, was developed and used for detection of pressure oscillation origin of boiler unstable operation. Signals were obtained from pressure sensors located along the flame-gas tract of the steam boiler and time analysis used for post processing of collected data. Investigations of the flame-gas tract have contributed to reveal origin of the boiler unstable operation. This work will help in establishing proper boiler operation.

KEYWORDS

utility boiler, pulsatile pulverized coal combustion, pressure pulsation analyses

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