

On Line carbon in ash analyzer trial run in Castle Peak Power Station

Control Automation Limited

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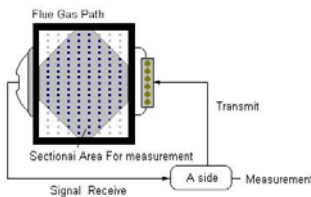
Local control panel of FFM-A carbon in ash analyzer.

Castle Peak B Power station houses four 680 MW coal fired power units.

Fly ash unburnt carbon level is an important consideration for combustion efficiency as well as ash marketing. At present, most utilities monitor fly ash UBC level by manually obtaining fly ash sample from the precipitator ash hopper or flue gas stream and sending the sample to a laboratories for analysis.

The FFM-QA model on line carbon is ash analyzer was developed by M&C and introduced to Castle Peak Power Station for trial run on March 2004. The system offer automotive monitoring of unburned carbon ash content. It has been installed in Castle Peak B station unit 3 'A' Side down stream ducting of air heater.

The FFM-A operating principle based on micro-wave absorption of carbon particle. Cross Duct microwave attenuation technology is used in this instrument. Microwave transmitter is installed on the one side of the ducting and receiver is installed on the opposite side of the duct. When the microwave transmits across the duct, carbon element in the flue gas will absorbs part of the microwave. By comparing the microwave intensity from the transmitter and the receiver, the attenuation of the microwave is measured. Thus the content of carbon in fly ash can be calculated.



FFM-A schematic diagram.



Local sensor or FFM-A carbon in ash analyzer.



The FFM-A analyzer being calibrated by specialist according to the actual carbon content counter checked with laboratory.

Other news: SMS remote monitoring and control system

Using SMS messages to aid the remote monitoring of such applications can be an effective, low-cost and reliable solution. The GSM Alarm uses SMS text messages to inform the user of any activity on any one of its inputs. On the other hand, field signal can be logged periodically at remote PC which can allow user to monitor the signal trend of

several remote station at office.

The system is based on Schneider zelio logic and being launched to potential client recently.