THE AIR EXCESS AND TEMPERATURE CONTROL AND THE BOILERS EFFICIENCY

Nicuşor VATACHI
"Dunărea de Jos" University of Galați

ABSTRACT

Of the whole heat rate introduced in to the boiler, a portion is lost in different forms. The most significant type of losses are the thermal ones by the heat of the burning gases exhausted at the stack. The cause for the occurrence of such losses is the temperature difference between the exhaust temperature of the gases at the stack and the environmental temperature. With the purpose to avoid the appearance of the dew condense in the flue gas and to keep a high efficiency of the system, two ways is possible:

-the exhaust temperature of the gases at the stack must increase, in this way decreasing the boiler efficiency.

-the air excess and temperature must control to avoid the acid dew point formation and decreasing the heat losses at the stack to obtain a maximum efficiency.

REFERENCES

1. **Vatachi. Nicuşor**., *"The experimental determination of steam boilers flue gas dew temperature",* Eight International Expert Meeting Power Engineering 1999, Maribor, Slovenia, Proceedings, pp.191-201.
2. **Pierce, R. R**., *"Estimating acid dewpoints in stack gases",* Chem.Eng., Apt. 11, 1973.