METHOD OF FIRING A PSEUDO-FLUIDIZED BED BOILER

Description
A simple and reliable method for firing a pseudo-fluidized bed boiler was designed. In contrast to the conventional methods, in which the pseudo-fluidized bed and the boiler are heated to the working temperature by liquid fuel combustion at the initial stage of boiler startup, the proposed method ensures firing of the main boiler at an initial heating of 250-350°C by process steam from neighboring boilers. Thus, the proposed firing method eliminates expenses for liquid fuel at the stage of boiler startup or decreases them by 70-80%. The duration of boiler startup is decreased by a factor of 1.5-3.

Technical appraisal and economic benefits
As compared to conventional technologies, the method decreases the duration of boiler firing by a factor of 1.5-3 and ensures cost saving due to the use of coal, which is less expensive than the liquid fuels employed in conventional firing methods.

Application areas
Power plants, public utilities, and other facilities using pseudo-fluidized beds for solid fuel combustion.

Development stage
The method was implemented on a 8 MW pilot boiler (Heat Generation Plant-2, Krasnoyarsk).

Patent situation
Two patents were granted in the Russian Federation.

Commercial offers
License agreement.

Estimated cost
Price is to be negotiated.

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