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Reduction of noxious substance emissions at the pulverized fuel combustion in the combustor of the BKZ-160 boiler of the Almaty heat electropower station using the “Overfire Air” technology*

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The computational experiments using the “Overfire Air” (OFA) technology at the coal dust torch combustion in the combustor of the BKZ-160 boiler of the heat power plant No. 2 in Almaty have been conducted. The results show a possibility of reaching a reduction of the emission of noxious nitrogen oxides NO*x* and minimizing the energy losses. The results of numerical experiments on the influence of the additional air supply on the main characteristics of heat and mass transfer are presented. A comparison with the base regime of the solid fuel combustion when there is no supply of the additional air (OFA = 0 %) has been made.

Key words: heat and mass transfer, combustion, overfire air, computational experiment.