

A.V. YEFIMOV, A. L. GONCHARENKO, O. V. KASILOV, L. V. GONCHARENKO. CHOISE OF OPTIMAL PARAMETERS OF HEAT-TRANSFER AGENTS WHILE DEVELOPING DEEP UTILIZATION SYSTEM OF FLUE GASES HEAT FROM BOILER UNITS.....2

One embodiment of saving industrial and municipal thermal power by deep heat recovery boiler flue of combustion of gaseous fuels with condensation of water vapor from them is viewed. 1 ton per hour heat recovery system on the boiler vapor production is built and consists of: boiler, condensing air heater and condensing heat exchanger for heating water, hot water system makes it possible to provide savings of about 12-14 % of the natural gas. While developing a heat recovery system and its elements became clear that efficiency of the system as well as compactness and low cost heat exchangers requires careful approach to select parameters such as the temperature of flue gases, cold water and cold air, spherical diameter of the intermediate coolant, the velocity of gases in the air preheater. To this purpose, the computer program, which is developed for calculation study for evaluating the impact of these parameters on thermal engineering, aerodynamic and structural characteristics of heat recovery systems and heat exchangers, its constituent is fulfilled, and their optimal values has been chosen. The solving of this problem can significantly reduce the cost of developing a heat recovery technology.

Keywords: heat recovery system, deep heat recovery, condensation of water vapor, the efficiency of the utilization of technology, flue gas temperature, the temperature of cold water, cold air temperature, diameter of spherical coolant velocity of the gases.

A. A. BOBUKH, D. A. KOVALEV. BETTER ENERGY SAVING IN CLOSED CENTRAL DISTRICT HEATING SYSTEM AFTER RECONSTRUCTION OF CENTRAL AND MODERNIZATION OF INDIVIDUAL HEAT SUPPLY STATIONS.....12

The paper address the issues of better energy saving in engineering systems of housing and utilities sector, in particular, the closed central district heating system due to the use of process automation. The research resulted in development of a functional diagram of process automation for the individual heat supply station.

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Key words: staff, labor, motivation, program, mechanism

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Key words: electrical power supply systems of industrial enterprises, energy losses, asynchronous motors.

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Key words: *infrared heater, gas burner, reflector.*

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Key words: *machine building, innovative development, competitiveness.*

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