limited by arrangement main and accessory in main building or on general plan power stations.

Thereby, variable can be a geometric sizes pipe line the main from which is their internal diameter, as well as factors local and linear resistances. In the course of performing the studies is organized analysis of the influence of the technical features of the pumping installation and pipe-line systems on economy power station. Accounting correlations are received for determination of the best values diameter pipe line on criterion of the minimum of the total cost most pipe line and expenseses to powers on issue of the liquids with provision for restrictions, superimposed on velocities of the motion.

The designed principles of the choice optimum state of working pump, providing maximum general coefficient of efficiency (KE) pumping installation with provision for features of the pipe-line systems. The Executed benchmark analysis of the influence of the ways of the regulation of the superchargers on economic factors hydraulic and aerodynamic networks. The designed algorithm of the optimum regulation of the frequency of the rotation of the superchargers, providing maximum importance general KE network.

The offered algorithm of the determination of the required frequency of the rotation of the pump provides transition on new state of working with minimum loss of the powers since regulation to capacity of the pump by change the frequency of the rotation is an more economical way in contrast with throttle regulation (the regulation by means of bolt). Use the offered methods to optimization of the pumping installation on TPP and APP can provide annual spare beside 3 mlrd. hrn to account of the reduction of the consuption to energy on own necessities power station.

REDUCTION OF THE LOSSES TO ENERGY IN CALDRON-TURBINE EQUIPMENT BY WAY ENERGY-SAVED MANAGEMENT

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The reduction of the losses to energy in caldron-turbine equipment heat power station, to which pertains the caldron, turbine, low-potential complex and their pumping units, is an actual research problem, decision which will allow to reduce the prime cost produced on TPP electric powers and raise energy-effectivity work TPP.

The much of the losses to energy on own necessities power station leaves on drive of the pumping installation. So exactly in this direction follows to search for the significant reserves energy-saved. The power pump, servicing caldron-turbine equipment (nourishing, condensate, circulation and other) can form before 4% produced energy-block to powers.

Each pump has its feature (the graphic dependency of the pressure, comsumed to powers, KE presenting (the consuption and pressure) under constant fixed frequency of the rotation of the rotor). The feature to network, in which works the pump, presents itself dependency total required pressure (on ascent of the ambience, defeat external swing of the pressures and hydraulic resistances) from consuption of the ambience.

The most profitable state of working hydraulic network corresponds to maximum importance KE pump in worker to point, conditioned main (the most long) working cut.

When change the mode of the presenting the pump under unchangeable feature of the network is put problem to provide the offset of the feature of the pump by change the frequency of the rotation in point that provides the minimum deflection KE from best values that is to say minimum losses to powers on displacement worker ambiences. The regulation bolt (adjusting bolt) by change the feature to network enlarges the hydraulic resistance to network, at reduction of the presenting for nominal importance is accompanied the reduction KE.

Coming from experimental features pumping unit (factory or working), are built dependencies KE from frequency of the rotation of the pump and degree of the closing bolt under givenned importances of the pressure and consuption. Aproximating curves, shall get the dependency of the losses to energy from frequency of the rotation and