RECALCULATE INSTALLATION OF LOW PRESSURE BOILER FEED PUMP AT PLTGU BLOCK I PT. PJB UP GRESIK

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Abstract

PT. PJB Generation Unit Gresik or abbreviated as PT. PJB UP Gresik is a company which move in electricity generation that has the role of generating electrical energy and distribute to various regions are started from Java Island, Madura Island, until Bali Island. Gas & Steam Power Plant (PLTGU) is one type of power plants in PT. PJB UP Gresik. It has three blocks in which each block has three gas turbines and one steam turbine.

One type of components that exist in Gas & Steam Power Plant (PLTGU) is Low Pressure Boiler Feed Pump. This components serve to distribute demineralized water from the deaerator to the HRSG (Heat Recovery Steam Generator). To be able to distribute demineralized water in accordance with the needs of the production process, it is necessary to select the appropriate pump selection criteria.

At the writing of this Final Project has got some recalculation of installation of Low Pressure Boiler Feed Pump which in the end is used as criteria of pump selection that is the highest operating capacity equal to 83,34 m3 / h with effective head of installation equal to 138,109 m, and has got $NPSH_A$ equal to 22,4834 m . So from that results, it can be selected single stage centrifugal pump made by Ensival Moret serial no. CN80-32 with low-speed impeller type.

Keywords: *Low Pressure Boiler Feed Pump, the highest operating capasity , effective head of installation, $NPSH_A$*