UNIVERSITY OF MANAGEMENT AND TECHNOLOGY

PROPOSE STEAM TURBINE AS ALTERNATIVE TO REDUCE BREAKDOWNS

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FINAL REPORT

PROJECT : PROPOSE STEAM TURBINE AS ALTERNATIVE TO REDUCE BREAKDOWNS

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Contents

Chapter 3 calculations

Chapter 4

1 Abstract

This paper will present a project of electric energy generation by utilizing steam produce in paper making process by Implementation of a steam turbine of 1500 kW using, rise husk or coal. Nowadays, the energy supply in the maqsoodfasial board paper mill is based on a dieselgenerators and WAPDA.Although the steam turbine system, which will be used in this project is expensive but it will overcome their problem of breakdown. With thisProject, it is expected that company get interested in develop its own electricity to confirm the economical viabilityof the project, as well as the cost reduction and the efficient gains.

Main problem is a breakdown occurs due to short fall of electricity. Machinery has to be start four to five times in 24 hours. They were at the end of electricity feeder and there is lot of voltage fluctuation .Due to breakdown they are not able to maintain the efficiency of dryer section as required. Using diesel generators per roll cost is increasing against their profit on per roll.

This problem is selected because they are facing significance profit loss. Due to breakdown they face 5% loss of the paper cost at the starting of each roll.Significance of this problem is that there is a big risk element due to sudden break downs.Because they are at high temperature and sudden downfall causes temperature variation in drying section which affect the efficiency of drying and pressing section.

After observing there process we try to find out solution.We introduce technology for this problem is that a steam turbine is used for power generation to utilize the steam and makes its power own. Back pressure steam turbine is used for this purpose and high pressure water tube boiler use with it. The steam uses in turbine is that which is basically use for drying section and for cooking pulp. When steam passes through the back pressure steam turbine its pressure and temperature drops which is enough to dry the paper. High pressure water tube boiler is type of boiler in which water circulates in tubes heated externally by the fire. Fuel is burned inside the furnace, creating hot gas which heats water in the steam-generating tubes.

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Thank you,

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