**Energy Audit on Boiler**

Abstract:

The topic is energy conservation in boiler. My aim is to reduce the energy losses in the boiler and to increase its efficiency. Also the plant in which my thesis work is going on is using biomass fuel (rice husk).More has been focused on the heat loss which is taking place through the boiler furnace as it accounts for around 8% increase in efficiency and to focus on major energy destruction areas such as economizer and air pre-heater. This study is based on the literature survey of energy conservation in power plant. The brief introduction of general energy conservation techniques in boilers is presented here. The equipments on which main focus is given are feed water pumps, condensate pumps, hot water circulating pumps, boiler draft fans and heat exchangers. Some literature related to the energy audit has been studied and presented here. Specific literature based on the past studies by different researcher on boilers and its various equipments are also discussed here. The problems and limitations with the available literature are identified and listed. The possible scopes of further research that can be done to overcome the limitations of existing research are identified. A boiler is an enclosed vessel that provides a means for combustion heat to be transferred into water until it becomes heated water or steam. The hot water or steam under pressure is then usable for transferring the heat to a process. Water is a useful and cheap medium for transferring heat to a process. When water is boiled into steam its volume increases about 1,600 times, producing a force that is almost as explosive as gunpowder. This causes the boiler to be extremely dangerous equipment that must be treated with utmost care.