

## POWER GENERATION FROM WASTE HEAT EXTRACTED THROUGH CLINKER PRODUCTION IN CEMENT INDUSTRY

## KULDEEP SHANDILYA, RAKESH KUMAR & AVINASH PANWAR

Research Scholar, Department of Mechanical Engineering ,Jagannath University, Sitapura Industrial Area, Jaipur, Rajasthan, India

## ABSTRACT

The purpose of this work is to utilize the waste heat in cement industries.Cement industry is one of the strongest industries in terms of waste heat recovery (WHR) because of the reason that about 38% of heat utilised in clinker production process is exhausted to atmosphere from exhausts of suspension pre heater without utilisation of such cases. So this much heat is enough to affect the production, efficiency and turnover of an industry at such a big level and that's why it emphasise the point of recovery of waste heat.

In this study to recovery of waste heat through clinker production in cement factory we installed an external de-super heater in a boiler consisting a super heater. By this the temp is decreasing with the increasing of power. In our case study we saw the differences and improvements in flue gas temperature, steam temperature, steam pressure, steam flow rate, and de-super heater old percentage feedback after and before installing the de-super heater.