

## EQUIVALENT CARBON ANALYSIS OF THERMAL POWER PLANT

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### ABSTRACT

Equivalent carbon analysis is an approach to analyze the power plant for its exergy destruction and entropy generation rate using a new methodology and concept of equivalent amount of carbon. This paper reviews the conversion of actual exergy at every salient point, exergy lost and entropy generated in joule/ kg by a component of a plant into equivalent amount of carbon in kg. Hence exergy lost due to irreversibility can be converted into exergy equivalent carbon (ExQC), entropy generated can be converted into entropy equivalent carbon (EnQC), ultimately ExQC and IQC will be utilized in order to find the exergetic efficiency, exergetic destruction efficiency, and energy efficiency, carbon emitted by the plant per day and faulty spot which needed to be audited.

**KEYWORDS:** Exergy, Entropy, Equivalent Carbon, Efficiency and Destruction Rate