

VIBRATION BASED CONDITION MONITORING FOR GENERATOR

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ABSTRACT

The new generation of condition monitoring and diagnostics systems plays an important role in efficient functioning of thermal power plants. Most rotating machine defects can be detected by such a system much before dangerous situation occurs. It allows the efficient use of stationary on-line continuous monitoring system for condition monitoring and diagnostics as well. Vibration monitoring for condition monitoring of turbine bearing can reduce expenses of maintenance of turbo generator in power plant as well as prevent unnecessary shut down of plant, which create the power crisis. The last decade has seen a large-scale growth in the requirement of uninterrupted power supply for industries, residential and commercial complexes and educational institutions. At many of these locations, standby power is provided by diesel-generator (DG) sets. Proper control and monitoring of these DG sets is an imperative, since any interruption in the supply caused due to improper functioning of the standby-unit, would lead to a loss of productivity.

KEYWORDS: Condition Monitoring, Diesel-Generator, Diagnostics, Rotating Machine, Vibration