

S U M M A R Y

The Objectives of the study are:

1. Examination of a number of preventive maintenance policies for a thermal power unit and determination of preventive maintenance policy that maximises generation.
2. Examination of organisational climate variables of two thermal power plants and determination of critical organizational climate variables which affect the performance of these two thermal power plants.

1. EXAMINATION OF PREVENTIVE MAINTENANCE POLICIES:

A preventive maintenance policy is defined in terms of remaining life of Induced Draft Fan and Coal Mill Circuit. If T_1 is the remaining life of Induced Draft Fan and T_2 is the remaining life of Coal Mill Circuit, the preventive maintenance policy, i,j , is defined in terms T_{1i}, T_{2j} . By changing the values of T_{1i}, T_{2j} , from 0 hours to 200 hours in steps of 25 hours, we generate 81 policies. 81 Preventive maintenance policies have been tested for their effect on the generation by simulation of the operation of thermal power unit.

2. EXAMINATION OF ORGANIZATIONAL CLIMATE VARIABLES:

Two Thermal Power Plants were selected such that they are similar in technology, capacity and vintage, but different in performance.

The following organizational climate variables were examined for maintenance engineers in these two thermal power plants.

Growth motivation of engineers

Maintenance motivation of engineers

Professional commitment of engineers

Intrinsic factors of the job

Nature of the work

Delegation of authority and responsibility

Achievement and Recognition

Opportunity for Learning and Growth

Extrinsic Factors of the job

Working condition

Technical Supervision

Company Policy and Administration

Social Group Behaviour

Monetary Compensation

Perceived Organizational Climate

Personnel Policies

Superior-Subordinate Relations

Leadership Style

Commitment to Organizational Objectives and

Patterns of Communication

3. CONCLUSIONS:

The following conclusions have emerged from the study:

3.1. The optimal preventive maintenance policy that maximises generation is as below:

T_1 = 120 hours for the critical limit for remaining life of Induced Draft Fan.

T_2 = 90 hours for the critical limit for remaining life of coal mill circuit.

3.2. The following organizational climate variables are found to be significant in improving the performance of thermal power plant.

Professional commitment of engineers

Intrinsic factors of the job

Achievement and Recognition

Opportunity for Learning and Growth

Perceived Organizational climate

Superior - Subordinate Relations

Commitment to organisational objectives.