KHAPERKHEDA THERMAL POWER STATION

Source: - Intranet Khaperkheda
Khaperkheda TPS is situated at the Khaperkheda village. Khaperkheda is 20 KM away from the Nagpur on National Highway No. 6. It is also on Nagpur Chindwara highway road. Village Dahegaon is on Nagpur – Chindwara road which is 18 KM from Nagpur & from Dahegaon a road goes to Khaperkheda on right side. The distance between Dahegaon & Khaperkheda is hardly 3 KM. The distance between Koradi TPS & Khaperkheda TPS is about 8 KM. Khaperkheda is situated at MSL 291.8 meters. Khaperkheda is not new on the map of generation of electricity in India. Since inception of the Western Power Grid, it has been a vital generating station. It was established in 1950, three years after independence of India. The first thermal power station at Khaperkheda had an installed capacity of 3 x 10 MW. This was dedicated to the nation by the first President of India, Dr. Rajendra Prasad on 27th Dec. 1950. With the growing demands of the electricity, there is constant pressure of increase in the capacity of the generating units of Khaperkheda. With the closure of small units at the power station, Khaperkheda now is working with 4 units each of 210 MW. As on date, Khaperkheda has capacity to generate 840 MW electricity every
day, partly filling energy demand of around 14,000 MW of Maharashtra state which is quite significant (i.e. 6.0%). It is connected by rail with south east railways on the narrow gauge Nagpur Saoner road. Khaperkheda is surrounded by WCL group of mines on north, Kamptee cantonment on south, river Kanhan on east, & Koradi TPS on west. Coal supply to the power station is envisaged from Saoner coal mines by rail from a distance of 25 KM. Alternatively coal supply is received from nearby mines of WCL by road as well as rail from south eastern coal fields. 14 km long broad gauge railway track is laid from Kalamana to Khaperkheda. Considering the availability of land the layout of power station is such that all the auxiliary plants, time office, canteen building, fire station building, store complex etc are at equal distance from center of existing four units. The power station is connected with M.S. grid through 220 KV double circuit lines and switchyard constructed in the premises along with grid control room. To meet pollution requirement sewage treatment plant is already in operation in also effluent treatment plant are constructed. All the pollution standards are being followed by regular sampling of outlet water & analysis of gases in surrounding.

It has ISO 9001 -2004 & ISO 14001 certification. It runs on modern technology (Fully atomized) & this is the computerized plant in India. The water is being brought from the Pench project for the utilization of the plant & coal from Saoner as well as from Southeastern states of India. The ash is disposed away from the plant at Waregaon. Khaperkheda TPS is very cautious about the environment pollution. Khaperkheda TPS is always achieving the said targets in the stipulated period. It has won various prestigious awards for the generation. Since it is a continuous process plant, the working of this plant is carried out in shifts. It runs continuously 24 hrs.-a-day. There are various departments working in this power station. A homogeneous mixture of Engineers, Chemists, Artisans, Labours, & Office staff looks after the operation, maintenance & administration of this plant. Likewise such departments are there in other power station also.

4.3 Rationale of the Study :-

Modern management techniques rely much more on motivational & human relation aspects for its goal, achievement through the efficient administrative machinery. The inputs of man, material & money are processed by management & transferred into the
outputs in the form of profits & services, leading to the conclusion that man is most essential & valuable ingredients of the process. Employees in the form of man do not function in isolation. Employee’s static environment is being affected by the exogenous & endogenous factors of motivation existing in the individual family working place & society as such.

The rapid expansion of public sector in India after independence has led to a number of theoretical & empirical studies on the role of these undertakings in the socio-economic development of the country. However one aspect, which seems to have received inadequate attention so far in these studies concern the Human resource development in power industry. Though the public utility economics is now recognized as to distinctive branch of economics, very little work has been done on special problem which are likely to be faced by Central Governed & State Government owned public utility in a developing countries like India. Human resource development & its proper utilization is one of the most important things in public utility sector.

Without manpower it is not at all possible to generate the electricity & supply the same to the consumer for this purpose Human resource welfare & its proper administration is very important for the study of this topic. Without proper development & effective utilization of human resource, it cannot be expected to achieve the energy generation target.

Now days public utility undertakings are facing many problems i.e workers are not working properly, no proper manpower planning & misappropriation of funds, lack of administration, lack of control, no fear of superiors, indifferent attitude towards workers.

Further to ensure that this study does not remain mere academic exercise & also has some practical utility. It was decided to supplement it with a some case study & practical suggestions.

The Human Resource Management in power industry, governed by MAHAGENCO therefore is required to play a catalytic role of development entrepreneur. In the sense it is concerned with the management, to follow processes of changes from relatively static to dynamic & fast growth of industries in Power sector for which it has to mobilize human resource of necessary skills, institutional & physical affectivity to achieve the desired goals of regional industrial development.
Chapter No. 5

Nature & Scope of the Study
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Nature and Scope of the Study

The proposed research tries to examine various aspects of HRD department for improving performance of the organization. Also to identify crucial issues to be examine & explore the possible pathways for developing the Human Resources. This study helps in knowing the benefits of implementation of HRD department at station level. The study enables us to understand the problems of the employees working at station level & corrective measures to be used to identify solutions for their problems. Researcher also tried to know through this research the HR practices adopted by other power stations in private sector.

In order to pursue the objective of research a no. of studies were carried out. An effort was made to collect all the relevant data. In research, different methods are employed for the collection of data. The present subject is a mix of both desk & filed research hence a variety of sources direct & indirect, primary & secondary are utilized in order to assimilate, process the necessary data as well as present in definite conclusive form.

Following are the various steps, which were involved in the research.

1) Collection of secondary data to examine & analyze the research problem.
2) Collection of primary data this includes :
   a) Planning the sample
   b) Preparing a questionnaire
   c) Interviewing the units of sample under study to get the required data
   d) Compiling the data

5.1 Statement of Hypothesis:

Every research should be based on some premise or hypothesis which can be validated or rejected based on the data analyzed and the conclusions drawn. This research is conducted with the following hypotheses:

Hypothesis is a skeptical proposition, formulated to be tested in a certain given situations as a part of research which states what the researcher is looking for. It is a
tentative generalization whose validity can be determined only when it is tested. For the proposed research work, hypothesis which were formulated are stated as below.

1. A good HRD is a sign of industrial peace and harmony.
2. HRD is co-related with the overall development of the employees working in the organization & progress of industry as a whole i.e. Maharashtra State Power Generation Company Limited (MSPGCL).
3. HRD will play a vital role in motivating the employees in desired direction.
4. HRD at station level will definitely be helpful for continual development of the Employees & the Organization as a whole.
5. This HRD department will be very good alternative to existing labour welfare department with a broader scope of labour welfare department.

5.2 Universe and Sample:

The employees of MAHAGENCO are categorized as Class I employees, Class II employees, Class III employees & Class IV employees. For the present research all the above mentioned class wise employees were taken into consideration for collecting the samples. Since all these employees are the part & parcel of the organization, responses from these all categories were felt necessary. Accordingly questionnaire was designed.

Phase I    Deciding the geographical scope of the study
Phase II   Deciding the methods of research and data collection.
Phase III  Deciding the universe and sample.

Phase I
The geographical coverage for the study is limited to Khaperkheda, Koradi, Chandrapur & Paras power stations of MAHAGENCO. The selection of these power stations is aptly justified since it is recognized as the power zone of MAHAGENCO. Also the many of the first in MSEB then MAHAGENCO has been established in this zone.

Phase II
Method of data collection is divided into the following:

a) Secondary Data: Secondary data is collected from the following sources
1. Reports published periodically by various research agencies, various books written by prominent authors.

2. Data collected from various journals, periodicals, newspapers, books, websites, corporate literature, etc.

b) **Primary data: Primary data is collected via**

1. Questionnaire: Structured questionnaires are used to collect data from the respondents. Questionnaires were prepared to collect the opinion, views of the respondents. While designing the questionnaire it was first tested on the sample. Further the response from the respondents & their suggestions were noted down. After brainstorming the questionnaire was altered so as to suit for the collection of the data from the respondents.

2. Interviews: Top Management, Officials of Trade Unions, Ex. MAHAGENCO Employees are interviewed to assemble data on various issues concerning the study, and presented in the form of case study in different chapters.

**Researcher has used following two types of questions:**

1) Closed End Type : in this all the possible answers are prescribed & respondents makes a choice among them.

2) Open End Type : It allows the respondent to answer in his or her own words

**Phase III**

For the purpose of this dissertation, the universe is limited to the following

1. Employees working in the power station of MAHAGENCO viz Khaperkheda, Koradi, Chandrapur, & Paras power stations.

2. Ex. Employees of MAHAGENCO. (Employees who has left MAHAGENCO & are working elsewhere).

**5.3 Limitations of The Research:**

Every project is affected by some limitations under which a researcher has to operate. This project has been carried out under the following limitations:
3. The research focuses is limited to the geographical boundaries of Thermal Power Station like Khaperkheda, Koradi, Chandrapur & Paras.

4. It does not differentiate between the employees working in different power stations.

5. It is also quite possible that the respondent may be biased working in particular power station.

6. It is quite possible that the response of the employees may differ on account of functioning of local management. Some or all the power stations may have a unique character pertaining to technology used, nature of manpower, work culture, various types of facilities being provided & managerial skills.

5.4 Research Methodology:

In research, different methods are employed for the collection of data. The methodology should be in the conformity with the subject matter and it should be a guideline & road to complete study on research work on sound footings. For the present research work following process of research methodology is followed.
Process of Research Methodology

1. Problem formulation
2. Secondary data
3. Report preparation based on secondary data
4. Designing tool of data collection
5. Testing of Questionnaire
6. Finalization of Questionnaire
7. Survey
8. Data Analysis
9. Reporting structure

Report Writing
5.5 Sample:
For the proposed research work sample is derived from the following categories.

a) On the basis of class / grade of the employees.
   i) Class I Employees
   ii) Class II Employees
   iii) Class III Employees
   iv) Class IV Employees

b) On the basis of trade unions.

c) Sampling unit: The Staff presently working in MAHAGENCO & the staff who has left MAHAGENCO were chosen as sampling units. Survey was undertaken at Khaperkheda, Koradi, Chandrapur & Paras Power Station.

d) Sample Size: A class / grade wise sampling size was chosen for each of the power station.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Class / Grade of Employees</th>
<th>No. of Sample From MSPGCL TPS Khaperkheda</th>
<th>No. of Sample From Other Power Plants of MSPGCL</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Class I Employees</td>
<td>25</td>
<td>50</td>
<td>75</td>
</tr>
<tr>
<td>2</td>
<td>Class II Employees</td>
<td>50</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Class III Employees</td>
<td>75</td>
<td>--</td>
<td>75</td>
</tr>
<tr>
<td>4</td>
<td>Class IV Employees</td>
<td>50</td>
<td>--</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>200</td>
<td>100</td>
<td>300</td>
</tr>
</tbody>
</table>

e) Sampling Procedure: A mix of simple & stratified random sample was taken.

5.6 Measuring Instrument – Questionnaire

As the study was based on primary data sources, a questionnaire containing literature based assertions on various parameters like Personal information, HRD, Training, Promotion, Performance appraisal, Facilities, Placement & Communication were
utilized to gather the responses from the respondents. In order to increase reliability of the questionnaire, respondents were given options that were mutually exclusive so as the responses received were unmixed. The questions were designed so as to elicit responses in direct relation to the hypothesis. SPSS Package (Statistical Package for Social Science) method was chosen for data analysis. This method of data analysis has been used in previous studies and has proved to be appropriate for data collection within this field of study.

5.7 Data processing, Analysis and Interpretation

For data processing, following steps are followed.
1. Editing
2. Coding
3. Categorization
4. Tabulation

For data analysis, statistical calculations are carried out for interpretation of data. Statistical tools are used. For this present study Statistical Package for Social Science (SPSS) is used for Data Analysis. This method is being widely used by the market researchers, health researchers, survey companies, government, education researchers, marketing organizations and others.

The bridge between the act of collecting & reading information& act of drawing conclusion from this information is called analysis & interpretation. Analysis refers to the process of fact finding & breaking down complex set of figures into simple components while interpretation stands for explaining the real significance of these simplified components. The data collected has been treated statistically by applying familiar tools of analysis such as percentage, weight age, average etc. the data has been illustrated with various charts wherever necessary.