Chapter No. 6

Training and Placement

Policy of MAHAGENCO
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"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn" - Alvin Toffler

6. Introduction:
Training has increased importance in today’s environment where the jobs are complex & changes rapidly. Organization who won’t pay proper attention towards the training of the employees will find it difficult to compete with rivals. Peter Senge, The Author of The Fifth Discipline has rightly said that “The ability to learn faster than your competitors may be the only sustainable Competitive advantage”.
Therefore in order to survive & flourish in the present day corporate jungle, companies should invest time & money in upgrading the knowledge & skills of their employees constantly. Then & then only employees will be able to work for optimum performance.

6.1 Need for Training:
As we see technology is developing at a faster rate. Systems & management practices are also changing, to match up with the technological & behavioral aspects. Human being, the work force working in the organization is an invaluable asset to an organization. For organizational effectiveness, it is necessary to develop the individuals working in the organization. Effectiveness of the organization is directly linked with the performance of the workforce employed to carry out the job. Performance of the employee is depended upon the training he undergoes in the organization. For an individual training is necessary to keep him updated with the fast changing technologies, concept, values & environment. For the organization training programmes are necessary for improving the quality of work of the employees at all levels.
Employees in their average working life of about 35 years may work in different organizations, functions, locations & in different capacities all of which demands specific skill sets.
Universities and colleges teach in generic context & the aim of the student at this level is more to do with passing examination & getting jobs. Successful performance of any job requires domain specific knowledge & skills pertaining to the concerned industry or organization. For example all mechanical engineering students study & pass common subjects in the college, but once they are employed, the nature of work performed by mechanical engineers in automobile industry is different from the mechanical engineer employed in telecommunication industry. This is why training becomes necessary whether we employ the brightest professional or average people for our organizations. The knowledge & skills learnt in the colleges are relevant & contemporary at the time of graduation or a couple of years thereafter. But in the technology driven world of change, continuous learning becomes necessary to grasp the new knowledge & skills to stay competitive.

The college learning takes place in laboratory conditions or in theoretical context, but training attempts to take real work place performance context requires soft skills or behavioral skills to deal with several stake holders like boss, peer subordinate, customer, supplier, consultant etc. which calls for learning such domain specific or industry specific soft skills. Such soft skills are beyond the scope of college & universities & only corporate training can deal it.
6.2 Highlights of National Training Policy for Power Sector

The recent past has seen the Power Sector change substantially in its institutional arrangements for its regulation as well as the structure of the industry in itself. Major changes are being introduced in the Power Sector through private participation, reforms, restructuring apart from technological and perceptual changes that are also taking place simultaneously. This churning process has obviously deeper implications on manpower engaged in this sector. This warrants a fresh look at the current HRD/Training scenario.

The basic philosophy on which the guidelines have been devised is:

**TRAINING FOR ALL**: EVERY EMPLOYEE HAS A RIGHT TO RECEIVE NEED BASED TRAINING AT REGULAR INTERVALS TO ENABLE HIM/HER TO DEVELOP HIS/HER POTENTIAL TO THE MAXIMUM AND CONTRIBUTE HIS/HER BEST TO THE ORGANISATION.

THE ULTIMATE GOAL OF EACH TRAINING COURSE IS CUSTOMER SATISFACTION THROUGH REDUCTION IN COST OF DELIVERED POWER AND SUPPLY OF RELIABLE AND QUALITY POWER AT ADEQUATE AND IMPROVING LEVELS OF EFFICIENCY AND ACCOUNTABILITY.

**Highlights of Training Policy evolved for Power Sector.**

The salient points of the policy document are:

- The committee noted that there is a glaring lack of training culture in majority of the power sector organizations and hence all organizations should adopt a formal written training policy to ensure training for all for a **minimum period of one week annually for each employee.**

- A comprehensive training plan should be formulated by each power company based on periodical training need analysis.
• Training in Power Sector Reforms should be provided to all stakeholders including the regulators and consumer forums.
• The training function should be headed by the head of the Personnel Division in an organization.
• Money spent on training should be treated as an investment. The human resource should be considered as a corporate asset.
• A minimum of 1.5% salary budget may be allocated initially towards training function.
• Networking amongst various organizations under the Ministry of Power and other reputed Institutes should be done for optimal use of training infrastructure and intellectual resources and to change the present attitude of ‘my-resources – my-people’ to ‘our resources-our-people’.
• Induction level training should be made mandatory for T & D personnel similar to the Generation personnel.
• Adequate infrastructure for training in Hydropower, Transmission & Distribution and Non-Conventional Energy should be developed.
• A Training Management Information System (TMIS) should be put in place to integrate the training institutions.
• Appropriate performance measurement and incentive systems should be evolved for trainers and training institutions.
• Manufacturers may be involved in training activity to ensure that their specific product knowledge and expertise and facilities are appropriately utilized.
• Adequate training should be made a requirement for the contractors to qualify for the supply of labour in power installations.

6.3 Restructuring through Power Sector Reforms and Training:

The reforms process promises to radically change the way the electricity industry has been functioning hitherto. But, still there is a lack of clarity and adequate information among most of the personnel in the organizations in regard to their role, functions, responsibilities and new skills required in the changing environment. Also the concepts of reform are very often wrongly projected / understood as against the interest of the employees and consumers which needs to be corrected. It needs to be
appreciated that in the reform and restructuring process, the interest of the employees have fully been taken care of, and no retrenchment or layoff has taken place in any of the SEB's where reforms and restructuring have been initiated. There is a need to communicate with the employees to remove the misconceptions about reforms. Along with this the employees are also to be motivated and equipped to meet the challenges in the new roles they would be playing during the reforms process in the organization and in the post reform scenario. It should be appreciated that when power sector is undergoing structural changes and the expectations of society are becoming more demanding, it makes sense to equip oneself to meet these emerging challenges.

A proper and timely HRD initiative in an organization will allay the fears and provide inputs required to achieve the benefits of reforms in power sector. The attitudes have to be changed to treat electricity as a business. Since more number of competitors are coming to this electricity business, each individual employee has to concentrate on their work seriously as to how efficiently it has to be carried out. It will be possible only when they acquire required skills, knowledge & proper training. HRD department should prepare performance oriented; need base training programmes so that employees will be able to carry out their task efficiently & in time.
Table No. 6

6.4 Training as a Sub-System of HR

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Sub-system</th>
<th>Contributes to</th>
<th>Linkage to training</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Recruitment</td>
<td>Intake of right people</td>
<td>Establishes a baseline for training efforts</td>
</tr>
<tr>
<td>2</td>
<td>Organization structure and role definition</td>
<td>Linking organization’s goals to individual’s role</td>
<td>On-the-job learning and application of KPP</td>
</tr>
<tr>
<td>3</td>
<td>Performance Appraisal</td>
<td>Evaluation of performance and feedback</td>
<td>Major source of training needs at individual level</td>
</tr>
<tr>
<td>4</td>
<td>Compensation</td>
<td>Motivation and reward for good performance</td>
<td>Reinforcement of learned KPP and behaviour</td>
</tr>
<tr>
<td>5</td>
<td>Employee Relations</td>
<td>Culture building</td>
<td>Learning through attachment &amp; sharing</td>
</tr>
<tr>
<td>6</td>
<td>Organization Development</td>
<td>Smooth transition towards greater effectiveness</td>
<td>Helps to identify organization-wide development needs</td>
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6.5 Training Vs Development

Training often has been referred to as teaching specific skills & behavior. It is usually reserved for the people who have to be brought up to performing level in some specific skills. The skills are almost behavioral as distinct from conceptual or intellectual.

Development, in contrast to be considered to be more general than training & more oriented to individual needs in addition to organizational needs & it is most often aimed towards management people. Usually the intent of development is to provide knowledge & understanding that will enable people to carry out on technical organizational functions more effectively, such as problem solving, decision making
6.6 Principle of Adult Learning:

The teaching methodology for training adults should be different from the one used for teaching school children's. In the school education the students are minors who are open to accept instruction & commands from the teachers, whereas trainees are adults capable of evaluating the teaching contents & methods. School children's have limited knowledge, whereas trainee employees are substantial learned. School education is mostly confined to text books & teacher instructions but corporate training requires the trainee to study several books & undergo live practical's in each subject to develop a broader & intensive understanding of the task performance. School education emphasizes more on the theoretical, laboratory learning but employee training looks over & above these to actual practice. Education is targeted mainly at acquiring theoretical knowledge & passing examination but training is meant for learning practical skills so as to perform effectively on the job.

Researchers such as Malcolm Knowles (1970) have noted that many principles of learning & instructional methods have developed for children & argue that teaching adults requires using a different set of techniques. Pedagogy is the term traditionally used for instructional methodology & this has mostly often emphasized educating children & teenagers through high school. Knowles proposed an adult oriented approach to learning which he called andragogy. Andragogy is based on four assumptions about the differences between adults & children. 1) Adults are self directed 2) Adults have acquired a large amount of knowledge & experience that can
be tapped as a resource for learning 3) Adults show a greater readiness to learn tasks that are relevant to the roles they have assumed in life 4) Adults are motivated to learn in order to solve problems & or address needs, and they expect to immediately apply what they learn to these problems & needs. Andragogical instruction techniques are designed with these factors in mind. These techniques include joint planning, self diagnosis, formulation of learning objectives, collaborative teaching process & involvement of trainees in the evaluation of success. The important difference between a pedagogical & an andragogical approach to learning is as follows.

6.7 Problems related to training before MAHAGENCO Management & solutions thereof :- An observation of Researcher

Researcher observed during survey three basic reasons which posed problems before management

- Wrong officers sponsored for wrong training
- Due to hapazardous way of the presenting the training programme by the professional training imparting agencies
- Participants have taken the training lightly & causally

Solutions thereof proposed by researcher :

- For No. 1 management is blamed in fact they should find out the correct work force to be exposed for the appropriate training made for each other. E.g. those who have taken the training (foreign) are working elsewhere because of which its benefits are not pass on to others. For this purpose a proper Training Need Analysis (TNA) of each individual is to be carried out before nominating the employee for the training.

- For no. 2, it is the institutes which are training, are held responsible. For this reputed training institutes are to be preferred. Organization should developed regular tie ups with institutions like NPTI, IITs, IIMs, for providing necessary knowledge & skill inputs to their personnel.

- For no. 3 the participants are to be held responsible. They are not very serious towards the training programme for which they are nominated when sponsored
they are at leisure. Those in level of officer’s cadre are more concerned & attracted by the venue of the course – a hill resort or a 5 star hotel and those employees in a lower cadre are too happy as if on vacation away from the duty & take the training with the sole aim of physical presence. For this a need base training is to be imparted & one should take of a note of how effective is a training

6.8 Training Needs Analysis:

Needs assessment means the identification & prioritization of training requirements. The timely & precise identification of training needs starts with the determination of knowledge, & skills essential for maximum effectiveness in an organization’s position. Need analysis is the first step in the training process to determine who requires training, what kind of training is required & why a particular training is required. Needs assessment is a process by which an organization’s HRD needs are indentified & articulated. It is the starting point of the HRD & training process. A need assessment can identify; an organization’s goals & its effectiveness in reaching these goals; discrepancies or gaps between employees skills & the skills required for effective current job performance; discrepancies between current skills & the skills needed to perform the job successfully in the future & the conditions under which the HRD activity will occur.

![Training Cycle Diagram](Image)

Source :- Course material by KTC (Training for trainers)
Training needs analysis is a diagnosis by the organisation to know what the learning needs of its employees are. This analysis is more related in researching & evaluating changes in the internal & external environment of the firm, which will require the organisation to improve or change the competencies & abilities of its employees. Changes may stem from the company’s strategic plans like modernisation, diversification, expansion, profit maximization, waste reductions, accident prevention, etc. The strategies of the competitors may force the organisation to equip their own employees with critical knowledge, skills or capabilities, to withstand the competition. It is therefore the HR department should always look for the training & developments of the employees for attaining superior performance.

Training in many organisations is not seen as an activity capable of adding value to business results. As a result, whenever there is a cash crunch or losses in the business; training is seen as an easy option for cost reduction. Thus, training managers have a responsibility to ensure the need to develop skills, & the benefits of doing so, are properly identified & demonstrated. Continued long term investment in training & development can only be secured if such activity is seen to add value to the business. To ensure the best possible returns for the organisation, training & development activities, like any investment, have to be targeted, planned & managed. First & foremost, the training & development programme required for the organisation to achieve its objectives must be properly identified & prioritised. That is the purpose of training needs analysis.

The key elements of an effective TNA include professional trainers doing the analysis, using credible data, following a structured methodology, linking training needs with organisational objectives, justifying cost to the likely benefits, gaining the commitment of the top management, involving employees & their supervisors & communicating effectively with all those involved.

6.8.1 Components of Needs Analysis:

Training needs assessment generally involves three components namely; strategic/organisational analysis, task analysis & person analysis. Strategic/organisational analysis suggest where in the organisation, training is needed & under what condition it will occur. Organisational analysis is a process used to better
understand the characteristics of the organisation to determine where training efforts are required & the conditions within which they will be conducted.

- **Organisational Analysis**:
  The purpose of this analysis is to examine the organisation, unit or department & determine its basic business strategy, objectives & goals. In dealing with changing business environment, the organisational analysis may focus on the company’s new business goals & challenges, and the implications for jobs.

- **Task analysis**:
  Task analysis is a systematic collection of data about specific job or group of jobs to determine what an employee should be taught to achieve optimal performance. The result of a task analysis typically include the appropriate standards of performance, how tasks should be performed to meet these standards & the knowledge, skills, abilities & other characteristics that employee needs to possess in order to meet the standards. A variety of data sources are available for a task analysis, including job description, observing the job, asking the questions about the job & reviewing the literature about the job.

- **Person analysis**:
  Intends to find out who needs to be trained & what kind of training they need. Person analysis is aimed at finding out the individual capabilities in terms of knowledge, skill, attitude, motive & self -concept against the requirements for successful performance of a given job role. The educational qualification, relevant work experience, the skill sets, the motivational levels, the personal styles, the self concept & overall attitude to work matters a lot in person analysis. Person analysis is done individually. It addresses the questions of whether certain employees are deficient in the required capabilities / KSAs, and whether training would treat such deficiencies. In person analysis, the focus is on how well each employee performs basic elements of task / role but this process may identify a wide range of both common & unique HRD needs.
  Performance appraisal reports, 360 degree feedback, observations of the immediate supervisors & self – perception needs of the employees are the important sources of
data for person analysis. Performance data, observation at work, interviews, questionnaires, tests, attitude surveys, training progress charts, critical incidents, work dairies etc; may all provide information for effective HRD need analysis of a person

6.9 Training Methodologies adopted by MAHAGENCO:

The training need analysis determine the nature & extent of knowledge & skill gaps to be bridged with the help of training. On this basis the HRD professionals will have to determine the training delivery methods which can best suit in gaining a particular type of knowledge or skills up to desired level. Training delivery methods are mainly classified into two namely, class room training & on the job training. Class room training approach may involve, lecture, discussions, games, case studies, assignments, audio video media, and computer based learning. On the job methods may involve job instruction training, coaching, and counseling, mentoring job rotation or deputation. Some of training methods are discussed below in the context of MAHAGENCO.

6.9.1 Class Room Training:

Class room training approaches are those conducted outside the normal work settings. In this sense, a classroom can be any training space away from the work site like a training center, cafeteria, hotel, conference hall etc. conducting training away from the work setting has several advantages over On Job Training (OJT). First class room settings permit the use of a variety of training techniques such as video, lecture, discussion, role play, & simulation. Second, the environment can be designed or controlled to minimize distractions & create a climate conductive to learning. Third, class room settings can accommodate larger number of trainees than a typical OJT, allowing for more efficient delivery of training. In multi location organizations like MAHAGENCO services of specialized trainers or subject experts who are few in numbers cannot be made available at every branch/office for OJT or coaching, but it is possible to do so in class room method since several trainees can be gathered for training in one place & the best of learning facilities can be made available.

6.9.2 On the Job Training:

OJT is the training provided at the work site. In OJT the trainee is imparted training under the same working conditions & with the same processes, materials &
equipment which he will be using in future. The basic advantage with this method is that the trainee learns with actual equipments & in the same working environment.

OJT involves conducting training at a trainee's regular work stations. OJT gives an individual a sense of performing a meaningful job while learning. Based on performance rather than subject matter OJT is relevant in an era concerned with increasing productivity. It plays an important role in industries where it is difficult to keep workers informed, where technology is changing rapidly & where diversification & geographically widespread organizations make centralized training impossible.

Case Study:

Researcher has first introduced the Transfer of Training to Work Place (On Job Training) in MAHAGENCO at CSTPS, Chandrapur in the month of March 2011. (Pl. refer detailed case study in Annexure)

Employee's response after the training was outstanding. Researcher has implemented OJT on trial basis in two parts. First he has selected a specific topic for on job training. He planned the whole OJT in two parts.

1)  a class room for 3 hrs duration providing the theoretical & experiential inputs regarding the operational, maintenance, routine & important aspects about the subject matter.

2) 3 hrs on site practical explanation regarding the same with doubt clearing exercise. This type of OJT was specifically designed. First it was important to provide the class room inputs to the trainees as the trainees may be from various areas of same locations or different locations. Second it is better to provide the information to the trainee well before visiting the actual site for on job training. Third due to noise of various auxiliaries, many time trainees seems to be reluctant to hear the trainer in absence of proper prior input.

Due to unavailability of extra training hall to continue the same type of OJT, OJT for 3 hrs duration excluding the class room part is continued.

Employees are demanding to restore the first way of imparting the OJT i.e in two parts as it is more effective than the second one.
6.9.3 Job Rotation:
Job rotation is a form of job enlargement that occurs when employees do numerous & entirely different jobs on flexible revolving schedules without disrupting the work flow. Job rotation refers to the movement of an employee from one job to another. Jobs themselves are not changed only the employees are rotated among various jobs. An employee who works on a routine / repetitive job moves to & works on another’s job. The value of planned job rotation is manifold. It provides in depth understanding of the various variety of job experiences with great deal of depth breadth & vision. It promotes team building.

In case of MAHAGENCO, employees are working in various departments. Also in MAHAGENCO there are more than one unit running at every power stations. Job rotation is essential so as develop the employees to handle the various task. Working at same location for more than 2 to 3 years becomes a routine work for the employees. So in order to develop the individual, job rotation is must. This will help learning new for the employees, thereby creating a learning culture in the organization. In operation, maintenance departments most of employee working at one particular location are unaware of things of other job at same location i.e. operator, engineer working on drum level desk is unaware of boiler desk or turbine desk, or employee working at turbine maintenance at stage I is unaware of things at Stage II. This is creating problem when the particular employee gets transferred, or on leave & the other employees working at the location are either new or not of that expertise to handle the situation. Therefore HRD should encourage the job rotation among the employees first with in the section itself & for some employee’s change of section. (at least 5 years criteria should be there for an employee for change of section.)

6.10 Training Centres at MAHAGENCO:
MAHAGENCO has two main training centers one at Koradi & another at Nashik for catering the training needs of all the employees within the MAHAGENCO.
Due to expansion & retirement, MAHAGENCO is recruiting large no of employees every year. As these main training centre were falling short for catering the increasing training needs of all the employees, and therefore to meet the training requirements of the new inductees & existing employees it was felt necessary to start training sub
centers at major power stations. Likewise by the end of August 2009 training sub centres were inaugurated at all the major power stations.

6.10.1 HR Policy of Training To Employees:

- To improve their knowledge and skills
- To motivate the employees for achieving excellence in performance
- To improve overall productivity of the organization by developing technological knowledge & skills
- To develop the sense of belonging of employees towards the organization
- To improve the image of the organization through Trained Employees

6.10.2 Quality Policy:

Training Centre’s are committed to effectively train the personnel of power sector, through appropriate and relevant training programs, for upgradation of skills, enhancement of knowledge and vision. This we will be doing by continually improving the quality management system and following the requirements of the statutory and the regulatory bodies.

6.10.3 Koradi Training Center (KTC) Nagpur:

Overview

KTC is the Training Wing of Maharashtra State Power Generation Co Ltd. KTC mainly caters to the training needs of Generation wing of MSPGCL. The Institute is involved in the training and development of middle and senior level engineers, technicians & other staff of MSPGCL. Koradi Training Center is committed to provide State of Art training in Power Sector Technologies to meet the needs of the Power Professionals of MAHAGENCO.

Location:

Koradi Training Center is situated near Koradi town, in the premises of Koradi Thermal Power Station about 11 Kms north of Nagpur, the Orange city. Koradi Training Center is surrounded on one side with a pond with lush green surroundings carefully developed over the years.
Recognition & Certification:
Koradi Training Center was established in 1976. The Central Electricity Authority, New Delhi has recognized this training Center as Category-1 institute for Generation related training. Koradi Training Center is a certified ISO 9001-2000 and ISO 14000 2001 institute, since 1994. The Center has well maintained hostel facilities and solar water system to accommodate 115 participants.

Infrastructure:
KTC has the essential infrastructure for conducting various categories of training events. Air conditioned Lecture rooms & conference halls are equipped with latest teaching aids. Among the main facilities is a Model room with a complete Power Station Layout model, Gas Turbine model, Boiler model and other individual Power Plant machinery models. For Operation Training of Power Station personnel, KTC has a 210 MW PC based Simulator.

Infrastructure Available:
- Air-conditioned Auditorium
- Air-conditioned Conference Hall
- Air-conditioned 2 No. Class room
- Air-conditioned Computer Room.-2 nos
- Air-conditioned Simulator Room
- Hostel building with dining facilities (44 rooms with 115 Beds.)
- Well equipped Library with 1500 manuals / books etc

Training Methodology
- Class room lectures
- Actual demonstrations at power plant/sites.
- Visit to manufacturers / works of BHEL/ I.L. Palghat
- Visit to 500 MW Unit Chandrapur TPS/Pophali Hydro P.S./ Gas P.S. Uran / HVDC Padghe and L.D. Center, Nagpur
- A.V. lessons, Video Cassettes and C.B.T. Packages
- Group discussion and Case studies
- Computer Awareness.
• Simulator Training.
• Presentation by Trainees.
• Evaluation through Written/Oral exams.

Activities:
• To impart basic Induction Level Training to the Junior Level employees
• Refresher Courses for Junior / Middle Level Employees
• Multi Disciplinary Courses
• Enhancing Managerial Skills of Employees
• Seminars and workshops
• Computer Training Courses.
• 210 MW Simulator Based Training
• Environment Awareness Courses
• Human Resources Development Programs
• Vacation Training to Engineering Students

These two main training centers of MAHAGENCO were established to provide the Induction level training to the engineers, technicians, Chemist, & Administrative staff. Further these training centers were responsible for providing the refresher training & any other special training courses to the employees. But with the expansion plans, & large no. of recruitments, these training centers were falling short to meet the overall training requirement of the employees of the MAHAGENCO. Therefore it was decided to open Training Sub Centers (TSC) at major power stations. Thereby the TSCs were set up at major power stations to meet the training requirement of the employees of those power stations. These TSCs set up so far are utilizing the available space in the power plant. Still there is a lack of various amenities, facilities & dedicated staff at this TSCs. Due to these problems these TSCs are not able to function the way it should.

6.10.4 Training Policy:
It is necessary that operating organizations formulate and promulgate an overall training policy in the form of a written document dealing with the training, qualification and performance of TPS personnel. This policy is the commitment by
the operating organization and the TPS to personnel training, and an acknowledgement of the critical role of training for the safe, reliable operation and maintenance of the TPS. The operating organization should clearly define the responsibilities for all aspects of the training process.

The recent past has seen the Power Sector change substantially in its institutional arrangements for its regulation as well as the structure of the industry in itself. Major changes are being introduced in the Power Sector through private participation, reforms, restructuring apart from technological and perceptual changes that are also taking place simultaneously. This churning process has obviously deeper implications on manpower engaged in this sector.

This warrants a fresh look at the current HRD functions / Training scenario and develop a dynamic training policy in consonance with the rapid developments being unleashed in this sector as discussed in the following paragraphs.

6.11 Management Development Programs:

Every organization requires not only technically competent employees but it also requires that the employee must possess equally competent managerial abilities.

In order to invite fresh talent from outside / hard working deserving internal employees, MAHAGENCO is recruiting the personnel at all levels through direct selection process. This is done in order to encourage the hard working employees to compete & get selected to higher level jobs. As such to overcome the problem of stagnancy for deserving employees compete through this process to acquire the higher level jobs in the organization. The employees who join on higher levels jobs may not have vision, experience, and skill of handling the positions at higher levels. Also the employees who joins from outside on higher level job even may not have complete idea about vision, mission, and working culture of MAHAGENCO. Therefore HR department should come forward to prepare a plan for the development of the middle & top level management through a systematic management development training programs.
6.12 Training Organization Structure:

Due to the reforms in power sector, both private & public power plants are coming in large numbers. As a matter of fact this industry is falling short of trained manpower. MAHAGENCO itself is falling short of providing/fulfilling the training requirement of its employees. As a step further MAHAGENCO has started its training sub center at all the major power stations at the available locations in the power station. These training sub centers are falling short to meet the minimum standard requirement like staff, training facilities etc which are required for the effective functioning of the training. Therefore there is an urgent need of development of these training centers with all respect i.e. parameters for minimum standard of training facilities.

Training infrastructure for providing necessary training on hydro power plants, gas turbine power plants & non conventional energy should also be developed as these power utilities play a vital role in near future.

Since MAHAGENCO being mostly the technical organization, training function should be headed by the technical person with a background of HR & with active support from HR department for discharging effective functioning of the training.

Continuous upgradation of knowledge and skill of trainers be ensured by providing exposure to the latest technology/management practices.

The Main training centres should be developed as a business entity which will provide training to the other power sector employees to meet the growing demand of trained manpower in the power industry. Whereas the TSCs should developed to provide need base training, performance improvement trainings to the employees of the concerning power plants. The training Sub-Centers should be encouraged to run the summer placement batches for Engineering students (Degree / Diploma) on chargeable basis by which these training sub-centers will also start earnings for the MAHAGENCO. Also MAHAGENCO should encourage its employees, Engineering students or management students for research on the subjects concerning MAHAGENCO. This will help MAHAGENCO to find out the root cause of particular problems & implementing the suggestions by the researchers thereby improving the functions properly.
Interconnecting of Training Centres:
All the training centers should possibly inter connected so as to share the best practices in training. To upgrade the knowledge by knowledge sharing, sharing best practices, MAHAGENCO should link up with other training institutes like NPTI, BHEL, PMI, ESCI, etc. to tap the best management and technical expertise.

6.13 Training at Manufacturer’s works:
Training at Manufacturer’s works proves one of the best methods of training & learning the technology, equipments, and work practices. Therefore the Manufacturers may be involved in training activity to share their specific product knowledge and expertise. The suppliers of equipment should be required to provide necessary training to operate their equipment. These should be properly institutionalized so as to reap optimal benefits from the suppliers and absorb the technology. Where absorption of technology is envisaged through supply of modern equipments, training of staff should be an integral part of the contract so that the technology is internalized.

Concerned Employees should be deputed at manufacturer works to adopt the technology knowhow of the system. Most of the time it is seen that employees are either not deputed or non concerning employees are deputed for the training at Manufacturers works. Due to technological advancement many things are changing. MAHAGENCO is accepting this change by way of installing the new system altogether, replacement or through R & M. When MAHAGENCO adopts such systems knowhow of the system is essentially required to operate & maintain the system for a longer period.

6.14 Simulator Training:
Control room Operation is heart of the plant. Engineers working in Plant Control Room (PCR) & on local are required to be smart enough to take sound & quick decision in case of emergencies. The complexity of the modern power plants generates compelling needs for the operators to have a sound knowledge of the processes coupled with the diagnostic ability to understand events extraneous to the normal power plant behavior and preparedness to act as the situation demands. Simulator is a cost effective tool to provide highly interactive and high quality training to the operating personnel. Therefore it is necessary that the Personnel
Computer (PC) based Simulator training should be regular done at suitable intervals so as to build confidence in them.

Facility of such simulator training should be developed at all the TSCs (Station Specific) & it should be made open to all the employees & at all the time. Even employees should be encouraged to come forward voluntary to have hands on practice on these PC based simulator during their spare time.

6.15 Training for Contract Labour:

As most of the works in power plants are outsource & that to on regular basis. Therefore it is appropriate that the contract labour should be trained so as to enable them with the best maintenance & operational practices. This in turn will help the organization in avoiding the wastages, timely attending the works, proper maintenance etc. Adequate training should be made a pre-requisite for the contractors to qualify for supply of labour in power plants. If the contractors fail to provide the training to his employees, such training should be arranged by the TSC free of cost or on chargeable basis as pre decided by the management. Necessary training cost to be born should be recovered from the contractors.

6.16 Training Abroad:

Opportunities for foreign training should be provided to meritorious candidates through objective selection criteria. After such costly training, the trained persons should be posted at locations where they can utilize the training received and in turn guide others.

In past it was revealed that after the foreign training the employees are not placed in the department where benefits could be nurtured, rather they have been transferred to a place where there is no utilization of such highly paid training. Shri. A. Z. Zibkate had been to Germany to receive the training on 500 MW boiler (a new technology at Chandrapur). But after he returned from the training, he was transferred to Khaperkheda TPS. Likewise there are more examples so such kind. The management should therefore frame adequate training policy regarding foreign training. Selection of candidate for such training should be done on following guidelines.
Length of service of the employee in the organization, also the length of service left, relevant previous / current experience, Performance of employee, his achievement / contribution in the organization, Suitability of the employee for the training etc.

6.17 Review / Evaluation of Training Programs:
Training involves cost, and training has noble purpose of improving the performance; inculcating desired work place behaviors & unlearning undesirable behaviors; compiling with statutory & non statutory requirements & finally to meet the ultimate objective of propelling organizational growth through the efforts of people. Therefore evaluation of training programme is essential to see how far a particular programme has been able to meet the desired objectives. Evaluation helps in controlling & correcting the training programme. In many of the training institutes, the training programmes are not being evaluated in a scientific manner during or at the end of the program. Very rarely any attempt is made to measure the effectiveness of training by getting feedback on the performance of trained personnel after a specified period.

Evaluations are of two types namely pre-training & post training. In the pre training evaluation, the HRD department should decide whether the programme has to be arranged or outsourced & the likely outcomes. Thus pre training evaluation is required to assess whether a particular programme will lead to desired results so as to arrive at making or buying decision. Post training evaluation is aimed at finding out the learning outcome of a particular programme. Training evaluation is often a neglected job but if performed well can enhance the professional status of HRD managers for the value addition they make. Several models of training evaluation are in vogue which are given in the following table.
### 6.18 Training / HRD Evaluation Models:

**Table No.7**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Model</th>
<th>Evaluation criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kirkpatrick (1967, 1987, 1994)</td>
<td>Four levels: Reaction, Learning, Job behavior &amp; Results</td>
</tr>
<tr>
<td>2</td>
<td>CIPP (Calvin, 1983)</td>
<td>Four levels: Context, input, process and product</td>
</tr>
<tr>
<td>3</td>
<td>CIRO (Warr, 1970)</td>
<td>Context, Input, Reaction &amp; Outcomes</td>
</tr>
<tr>
<td>4</td>
<td>Brinkerhoff (1987)</td>
<td>Six stages: Goal setting, Program design, Program implementation, immediate outcomes, intermediate or usage outcomes &amp; impacts &amp; worth</td>
</tr>
<tr>
<td>6</td>
<td>Kraiger, Ford &amp; Salas (1993)</td>
<td>A classification scheme that specifies three categories of learning outcomes (cognitive, skill based, affective) suggested by the literature &amp; proposes evaluation measures appropriate for each category of outcomes</td>
</tr>
<tr>
<td>7</td>
<td>Kaufman &amp; Keller (1994)</td>
<td>Five levels: Enabling &amp; reaction, acquisition, application, organizational outputs &amp; societal outcomes</td>
</tr>
<tr>
<td>8</td>
<td>Holton (1996)</td>
<td>Identifies five categories of variables &amp; the relationships among them: secondary influences, motivation elements, environmental elements, outcomes, ability / enabling elements</td>
</tr>
<tr>
<td>9</td>
<td>Philips (1996)</td>
<td>Five levels: reaction &amp; planned actions, learning, applied learning on the job, business results, return on investment</td>
</tr>
</tbody>
</table>

6.18 Training in New Technologies:
Any new technology being introduced, first training should be given to sufficient number of employees who are handling the job so as to reap maximum advantages from it & avoiding the wastages or breakdowns.
Viz. Trainings in ERP modules, Six sigma, quality circles, etc

6.19 Short Term and Long Term plan for Training in MAHGENCO:
An Observation of Researcher
Due to transfer / retirement & also due to technological advancement, there is acute shortage of trainers. Also due to the competition at the door step, there is a need of trained personnel to handle the complex jobs in power sector. Therefore MAHAGENCO has to device / prepare the plans both short-term & long term in order to train & develop the manpower to handle the future jobs / responsibilities in order to compete in the power sector market & to remain strong leader in the power sector. Now days the responsibility of the personnel is enhanced, therefore the MAHAGENCO has to focus its training policy not only on technical aspects but also on the managerial aspects. MAHAGENCO should focus on need base trainings, Performance improvement training for which TNA is must. Following can be the broad training objectives for training.

1. As in case on NTPC, development of the systems is essential for proper functioning of the particular department, while carrying out certain jobs, functions. Therefore MAHAGENCO should move on to develop the systems for enhancing effectiveness of training.
2. Once the systems are developed, competencies required for implementation of systems
3. In order to train the manpower, experienced & effective pool of faculty is required, for which "Faculty Development" and "Trainer Skills Development" programs for all.
4. Preparation of long term training and development plan
5. Various ways by which the objectives of National Training Policy can be achieved i.e. to provide training mandays of 7 days to every employee.
6. Encouraging employees, professional bodies, Engineering students / research persons to study the problem areas (R & D) within MAHAGENCO.

7. To tie up with other training institutes for sharing of expertise in power sector.

8. To develop the training department as a business entity for providing training to other power utilities.

9. To interconnect all the power stations of MAHAGENCO online with MTC for sharing of knowledge base. Departmental websites providing all the information, procedure, works practices etc. within the power stations should be created. Knowledge base available at MTC should be shared online with all the power stations etc.

GAP Analysis:

(Ref : CGM / HR/Trg/11708 dt. 24/june/2010 minutes of meeting regarding setting up Training sub Centre of MAHAGENCO for commencement of ILT thereof held on 19th june 2010 at Prakashgadh Mumbai.)

As per the National training policy, a training of 7 mandays is to be imparted to each employee. Considering the large no. of employees at each power stations & present facilities being inadequate at the MTCs & therefore to cope up with the National Training Policy, it was felt necessary in MAHAGENCO to start training sub centers at major power stations. By August 2009 end all the 9 TSC at major power stations in MSPGCL were inaugurated at the available space at the power station. The design of TSC was based on the sectional performance monitoring & standardization of best practices in each section. During the first internal audit by M/s. Sheyas, Nagpur it is revealed that due to lack of firm commitment from MSPGCL management at all levels, these TSC are not expected to give results as proposed.
Total 14000 employees of MAHAGENCO x 7 mandays + 98000 mandays

TSC = 48000 mandays
Main Trg Centre = 5000 mandays
Total Mandays = 50000

Gap 48000 mandays

Source: Prepared based on the observation of researcher during the course of study.
Total 947 JEs. For ILT within up to June 2011

A gap of 497 JEs left out for ILT. Therefore to bridge this gap TSCs are identifies for ILT

Only 450 JEs could accommodate for ILT at KTC & NTC

MTC
Various facilities like AC Class rooms, Internet facilities, Lunch for participants, transportation facility, Simulator training, expert faculties, required staff to look after the training.

TSC
Lack of facilities like AC class room, Library, Lunch for the participants, transportation facilities, Simulator trg., Expert facilities, lack of sanctioned staff

Gap for conducting ILT
Additional AC Class room, Lunch facility, Transportation facility, Simulator trg., Expert

Source: Primary data
Due to large recruitment in MAHAGENCO (2010) & to accomplish a target of ILT of 947 JEs upto June 2011, the main training centre’s at Koradi & Nashik do not have adequate facilities (only 450 JEs could be accommodate ) hence TSC are to be prepared to handle ILT. According 3 TSCs were identified namely, Chandrapur, Paras, Bhusawal. Before the commencement of ILT training at these TSCs, all the requirement for up gradation of TSC so as to meet the requirement of ILT & refresher courses were also discussed. Such as development of infrastructure, class room with good ventilation with air-conditioned, furniture, vehicle, catering services faculties & also staff requirement to handle the ILT. Separate staff for coordinating the ILT i.e One course director & two course coordinators to be dedicated for ILT. Accordingly at Chandrapur Super Thermal Power Station (CSTPS), Chandrapur, first batch of ILT was inaugurated on dated 01/10/2010. But due to lack of proper facilities as compared to MTC, trainees were unhappy towards the way in which they are being trained. The salient points regarding the development of TSC in all respect before the commencement of ILT were not implemented. Such as

- Lack of Provision of Air conditioned Class rooms.
- Lack of Provision of lunch to the participants.
- Lack of transportation facility
- Lack of internet facility
- Lack Simulator training
- Lack of pool of expert faculties etc.

Also it is noticed that with the starting of ILT at TSC Chandrapur, its basic purpose i.e. to meet the training requirements of the employees at Power station, hampered. Training programmes for the existing power station employees were suspended due to lack of infrastructure & staff.

It is therefore suggested that the complete & separate infrastructure development of the TSCs should be taken on war footing with provision of all the facilities to the trainees as provided at MTCs. Also it is suggested to link these training sub centers under the administrative control of Chief Engineer (O & M) of respective power station for the matters concerning day to functioning of TSC, where as regular day to day expenditure & expenditure on infrastructure development should be accounted to Chief Engineer (Trg). Training calendar for TSC should be finalized by respective
TSCs on the guidelines issued by Chief Engineer (Trg) in consultation with Chief Engineer (O& M) for specific requirements if any. This Training calendar then should be approved by Chief Engineer (Trg) for further implementation.

6.20 Placement:

Selected candidates are placed on a suitable job. Placement is the actual posting of an employee to a specific job. It involves assigning a specific rank & responsibility to an employee. Placement is the process of determining which of the several positions that are available & within the competencies of the employees, will be most suitable to him & assigning that job to the selected candidate. Correct placement is in no way less important than recruitment. Placement is an important human resource activity. If neglected, it may create employee adjustment problems leading to absenteeism, turnover, accidents, poor performance etc. The employee will also suffer seriously. He may quit the organization in frustration, complaining bitterly about everything. Whereas as correct placement of the employees improves job satisfaction & productivity & reduces labour turnover & absenteeism. Proper placement is, therefore, important to both the employee & the organization. While placing employees on specific jobs, the requirement of both the organization & the employees should be taken into consideration.

Placement, it should the remembered, should be made with as little disruption to the employee & organization as possible.

In case of MAHAGENCO, graduate Engineers & diploma engineers are recruited from various disciplines through entrance test & interview. i.e. scientific selection. But when the question of placement comes, they are being placed according to the vacancy position available in the organization at different power station irrespective of the fact of employee’s qualification, expertise, interest, job profile etc. This creates frustration among the employees.

MAHAGENCO considers all the engineers recruited from various discipline as power engineers & therefore they are required to work at any department, location in the power station. But still development of the employees is hampered. Some sort of expertise is always required for the benefit of the organization. There is acute need of functional expertise in the organization. HR department should come forward for the
development of the functional experts in various disciplines. Placement of employees is followed in the same fashion as it was done the line in case of MSEB. But now the situation is different. Now the power sector is open to all. There is a huge competition in the market. Organization that has the expertise will stand in the competition. Quick redresal of the problem, quick & correct decision will be the basic requirement to stand in the competition. Therefore the organization that has employees of such high caliber will help its organization to stand in the competition.

**During the survey & interview various facts on same line discovered.**

Employees are not placed according to their expertise, interest. Though, in all the cases, it is not possible to place all the employees according to their will & interest. But the management & the HR department should find out the way out for the scientific placement of the employees so that it reaps the maximum advantage from the employees.

Also when the employee is transferred, he is transferred on the basis of vacancy position. Suitability of the employee at transferred location should be first checked by the HR department before transferring the employees. Since it is not being checked many a time situation arises that knowledge, expertise pool of particular department is transferred. This then create the problem for the functioning of that section / department. Delays in resorting the problems, then deputation of the employees back to help the section for attaining the problems is a common phenomenon noticed in MAHAGENCO.

Further on transfer to other power stations, these functional experts are again placed according to the vacancy position or in some case of his previous experience. Such functional experts are then placed in such section wherein his expertise in the field is of no use. He also adjusts to the section where he is placed. Therefore in order to reap the advantages from these functional experts they should be scientifically placed & transferred too.
Case Study:

Er. A. D. Bansod, J.E. working at T/M section transferred on promotion to TPS Koradi. He is renowned expert of T/M for KWU machines in MAHAGENCO. When he is transferred there was acute shortage of the expertise in T/M section. He is therefore called every time on deputation to attend the problems. This situation arises due to the fact that the management failed to develop other employees in the section of that nature. There were no plans before the management/HR department for the development of the employees.

On promotion almost all the expertise & experienced employees from I & C at Khaperkheda transferred from Khaperkheda. Some of the employees left the organization in frustration as they have been transferred elsewhere. This has resulted into acute shortage of experienced & expert manpower at I & C. Due to this problem arise at the daily functioning of the section. Employees working at I & C section were newly recruited who were less experienced & also they get less time with the experienced employees to work with. Mr. Bang, J.E. who also has been transferred to Chandrapur is a functional expert of I & C. was at Khaperkheda for his personal work, once called by the management to resolve the problem. Such type of situations arises when the placement, development & transfer of the employees is not scientific.

Observations:

Training Needs Identification is the starting point of all training efforts. The quality of data will determine the design, implementation and effectiveness of training and ultimately that of the training function itself. Therefore the Training needs are to be rightly identified & be implemented in right spirit. As far as MAHAGENCO is concerned the concept of TNA is still not being implemented in true sense while designing the training programmes for the MAHAGENCO staff. Due to this the training outcome is not to the level of customer satisfaction. Training activities, expenses and all other resources deployed on training are unable to narrow the performance gap and achieve organization Objectives/Targets.

Appropriate or accurate Training Evaluation system could not be design because of correct TNA data. So TNA be carried out on regular basis to update training calendar and minimize performance gap.
Facility of training at manufacturers workshop is not been properly utilized. In order to get thorough understanding about the subject matter, such facilities should be used to the fullest extent.

While sending the employees for Foreign Trainings, employees should be selected properly. His remaining Service period in the organization, his experience in & for the selected training programme, his performance, etc should be evaluated before sending for such trainings.

More over organizations should have its short term & long term plans regarding training keeping in view the National Training policy.

Training sub-centers should be developed at par with the main training centre at various power stations so as to reduce the burden on the main training centers. Since these training sub centre are in the vicinity of the plant, on job training for process improvement should be carried out to a greater extent.