

Manpower Training in Small Paper Mills

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This paper discusses issues related to in-plant training in small paper mills. In the world of continuously changing technologies, it is very important to train manpower according to mills requirement. Training requirements in small paper mills are different than others, and need special more attention at the lower level. Some possible actions that can be done in small paper mills, and the achieved benefits have been discussed in this paper.

INTRODUCTION

The need of continuing education and in-plant training is well justified. What is required is that each and every operator should be well versed with the functions assigned to him; methodology of doing the work correctly, with optimized efforts, materials, time and machinery. For the same correct training is required. But the mode and requirement for such type of trainings vary from place to place, mill to mill. Often, particularly in some mills, this is the most neglected area of the plant, and it is assumed that anybody doing a job is already doing well.

Many of the large-scale mills, as well as some well-managed mills have a separate HRD department for the same. But, many mills, particularly the small mills do not have a formal system for training. Here also, some training is given, but by the seniors, who tell the newcomers how to do a job, do this in a crude way.

Types of Information Knowledge

The information/knowledge, required to be given to a particular employee can be of three types

- Information, which affects the operations directly: e.g. telling a papermaker check the backwater pH and acidity, in case there are joints without any apparent reason.
- Information, which will occasionally help the employee in case of some difficulty while performing his duties: e.g. telling electricians to confirm that the input frequency is stable if load and speed fluctuations are observed in a thyristor drive.

- Information, which will be helpful in motivating the employee to do the job in a better way: e.g. explaining chemists how breaking length, having dimensions in m, can be used to tell about strength of paper.

The information given to employee also changes its form time to time as per the process requirements etc. For example, a chemist is told to cross check the condensate total solids, if earlier tested value is more than that normally obtained. If chemist is well trained about the process also, he may be tempted to identify the cause of this, and entrainment of boiler water along with steam may be detected easily. In this case, basically, the information was given to the chemist with an objective of maintaining data accuracy, but a faultfinding job is automatically done easily.

Worldwide Trends

Worldwide, many training companies are there to cater the need of technical personnel for mills. There are technical associations like TAPPI, IPPTA etc., which provide training in form of publications, seminars and audio-video presentation on cassettes (both audio and video), CD-ROMs etc. There are also some companies like Delta Training Inc., which provide training in multimedia format. It has given some information as well as some free demo software for users reference on its web site www.deltatraining.com. Many other organizations as well as educational institutions have provided a lot of training material on their websites.

Special Training Needs for Small Paper Mills

Unlike larger counterparts, small paper mills need

different area of focus. The reason is the organization chart, which is different from large paper mills. In many small paper mills, the middle management and workers are not very qualified. On the other hand, there may be one or two highly qualified or experienced person at top. While in large paper mills, middle level management also professionally qualified along with a good work experience.

Now, the knowledge, if considered to be the sum of knowledge of all personnel within a particular category, will be different for different organizations. For example, in large mills, or for highly quality and economics cautious mills, the shape of the knowledge base would be pyramid shaped, where the total knowledge plus skill plus experience at lower level may be higher than the upper level. Here, it must be noted that the top level may be highly qualified and experienced, but their knowledge comprises a significant part of managerial knowledge. But, in some organizations, particularly in small mills, lower level is relatively much less skilled or experienced compared to higher level.

In such cases where there is a highly skilled man on the top and the lower level is relatively unskilled, the unit is often referred to as one-man show. In such cases, the top man, be a manager, be a senior manager, or even a working director; is so busy with his duties that he is seldom able to spare time to train the lower level personnel. Appointment of middle level executives is not viable in some cases, and even if it is so, the getting nature of such management makes it difficult to appoint such personnel. As a result, the lower level becomes lesser ignorant. Even if the training of lower level personal is considered important, non-availability of sufficient training facilities at economic price is often not available.

Furthermore, when a relatively less qualified worker gets enough experience on the job, he is promoted to a higher position, for which he may neither be qualified nor experience. This action is considered to a reward to his work done in the past. As a result, need for training increases within such plants, but it is much different than that for larger organizations.

Available Training Facilities

Some organizations have considered above problems and have incorporated such training programs in their priority list. For example, Cummins India Ltd., a leading generating sets supplier in India and abroad, has initiated different training programs for the customers and their employees, free of cost. Yet, in paper industry, such programs are less. Some chemical suppliers, of

course, come for an in plant trial of their chemicals and they tell employees a lot about improving the productivity.

CPPRI, a leading research institution of Asia, has also initiated good work in this area. Recently, some five-day residential training programs were organized for training particularly in the area of waste paper handling, pollution abatement and energy conservation. Making available a handbook on different test methods related to pulp and paper making to Indian industry is another work by CPPRI, which must be appreciated.

IPPTA is organizing seminars every three months in different parts of country on different topics since long. For a nominal fee, the delegates get significant information on different topics, and are able to improve productivity and profitability.

During last decade, many clothing and machinery manufacturers have also started organizing seminars on related topics, and the attendees have found most of these programs very useful.

In this way, we see that there are various opportunities for knowledge enrichment. But, the major drawback with such programs is that these are only for middle or senior level executives. As a result, small paper mills participation is much lower with such training systems.

Further Actions Possible

To initiate the training in a small paper mill, some actions were planned. These included

1. Conducting regular tests for the knowledge of employees.
2. Initiation of knowledge exchange within employees.
3. Development of multimedia based training tools.

Initially, it was found that most employees were reluctant towards these schemes, but as they started getting knowledge, their interest increased, and they became more productive for the mill than earlier. The details of these are being given hereunder

1. Regular Tests

Initially, a test was given to paper chemists having a number of short questions on testing procedures, and other related items. The results were very discouraging. Many chemists did not know the significance of the testing they were doing. For example, they knew only to report to stock preparation men if Cobb has increased. They did not know factors affecting Cobb, the significance of Cobb, etc. The chemist were only using the instrument and reporting to concerned ones in case

of any abnormality. Similar was the case for other tests.

During this test, it was also observed that many a chemist faced problem of lack of communication, and he was not able to score good marks in the test. For the same, another test was taken comprising of only objective questions. After the test, it was informed to them that the results would be informed after 3-4 days. This duration was chosen with an objective to create suspense amongst them for the test results. It was pleasant to observe that this created a good suspense and curiosity amongst them. Later on, the answers to all the questions were informed to them. Similar tests were started on regular basis for all departments and found extremely useful.

2. Weekly Quiz

After initiating some tests, it was observed that the employees were facing the problem of lack of information availability. Photocopies of technical articles were made available to them, but being mostly in English, and also a bit difficult to them failed to help much. For the same, it was decided to initiate a weekly quiz, the question being posted at a suitable place, and answer displayed after 2-3 days on the same location. This 2-3 days period encouraged them in discussion with colleagues after which correct information is being supplied to them. Afterwards, it was observed that information exchange between employees enhanced very rapidly, and most of shift changes witnessed question-answer exchange.

3. Use of Multimedia

It was soon observed that the above methods of training are very slow, and we need a faster system. Using above two techniques increased the curiosity of the operators, but they were asking too many questions, mostly unanswered by their colleagues, who also were at the same level. Out of the available books, periodicals etc., information was made available to them but it was observed that they were reluctant to read these.

For the same, use of multimedia was planned. Some PowerPoint presentations, including animations were prepared related to pulp and paper testing, and the issue was discussed with the chemists to begin with. Additionally, some available presentations were downloaded from internet and were made available to them using a dedicated computer (PC) installed exclusively for the same. As expected, the response was extremely good. All of them found the concept very good and easy to understand. To encourage them further, newer ideas were taken from them and incorporated in the presentations.

Knowledge Sharing

The developed software was being used regularly to refresh the knowledge and information exchange, it was felt to use the setup for knowledge sharing with others also. The software can be prepared and distributed to anybody interested, on any storage media e.g. floppy, Zip, CD or sent as an attachment with email. For the same, copies of developed software have been sent to IPPTA on a CD, so that the interested people may share this information.

Gains Obtained

It is extremely important to evaluate the gains obtained by the training of employees in order to get a continual running of the program. Traditionally, the mills of small size often appoint chemists with graduation in science. They were initially good in testing, once they are taught how to use different instruments. But the drawback is correct interpretation of the failures is often not available in absence of relevant information. Here are some results obtained after implementation of training program -

1. Centricleaner level, which was controlled manually by opening or closing the dilution water valve by an operator, was not very accurate. This resulted in gsm variations in case of level variation in centricleaner pit. After the training program was implemented, the operators became more attentive, and gsm fluctuation due to same reason reduced drastically. Over a months duration such frequency dropped from 8-10 earlier to 1-2 incidences per month.
2. On web break, paper machine operators had a habit of bleeding steam inside MG cylinder to atmosphere, in order to reduce pressure inside MG rapidly. This also resulted loss of condensate. After training, this practice was eliminated completely, making them more comfortable at work as well as condensate return was increased by nearly 5-6%.

EXPECTATIONS

It is indeed very difficult for the personnel of small paper mills to engage also in software development activities. It is the interest in doing something different, a feeling of achievement after every part of job has been done that motivates in above activities. Is it possible for some industry organization, or academic institution or research organization to come forward and make available simpler tools for in-plant training, in form of audio visuals, using computers or VCDs, preferably in local languages?

REFERENCE

1. www.deltatraining.com