# Safety Facilities in the Paper Mills under a Public Sector Enterprisein India— A Case Study

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Abstract: Of all the resources, manpower is the only resource which does not depreciate with the passage of time. Hence, it is the duty of every employer to safeguard this resource because without human resource no industrial unit can survive. Inevery industrial unit, the human resource requires some facilities so as to perform their job safely. Such facilities are termed as 'Safety Facilities' under the Factories Act, 1948. Considering the huge potentiality for the growth of Paper Industry in Assam, Hindustan Paper Corporation Limited – a Public Sector Undertaking has set up two Paper Mills in the state i.e. Nagaon Paper Mill in the Morigaon district and Cachar Paper Mill in the Hailakandi district of Assam. Hence, in order to have an idea about the safety facilities enjoyed by the employees of the Paper Mills under a Public Sector Enterprise, an attempt is being made to write this paper titled "Safety Facilities in the Paper Mills under a Public Sector Enterprise in India – A Case Study"This Paper would focus on the safety facilities provided to the employees of the mills and to know the degree of satisfaction and dissatisfaction amongst the employees about the same.

**Key Words:** Cachar Paper Mill, Factories Act, 1948, Hindustan Paper Corporation Limited, Nagaon Paper Mill, , Safety Facilities,..

#### I. Introduction

For the smooth functioning of any large – scale industrial organization, there is a need for all the factors of production. Labour, as one of the factors of production plays a significant role in the life of a nation. It is this factor of production, which not only organizes the other factors of production but also ensures the smooth functioning of the other factors. It is the key stone in the arch of society. To ensure the human factor to work safely, some facilities are to be provided to the workers. Such facilities are termed as safety facilities. Occupational accidents remain the most appalling human tragedy of modern industry and a serious form of economic waste. An accident is a phenomenon of diverse and multiple etiology. An accident often is the result of an occurrence, or series of occurrences, chronologically remote from the accident itself. In some highly industrialised countries, industrial accidents are responsible for the loss of four or five times as many working days as industrial disputes. The economic burden on the community cannot be expressed in compensation cost alone. It also includes loss of production, disruption of production schedules, damage to productive equipment and in case of large scale accidents, major social dislocation. Safety has been described as everyone's responsibility. As a generalization this is true. It is grossly misleading, however, because most functions in modern society are fulfilled through an organizational hierarchy. Today, many industrial companies state that their first three concerns are safety, quality, and production respectively. Considering the huge potentiality for the growth of Paper Industry in Assam, Hindustan Paper Corporation Limited - a Public Sector Undertaking has set up two Paper Mills in the state i.e. Nagaon Paper Mill in the Morigaon district and Cachar Paper Mill in the Hailakandi district of Assam.

#### 1.1 Literature Review:

For writing this paper, the following literatures have been referred:

- India has the best safety standards and safety protocols for industrial safety in the world, but very rarely they are visible at the ground level in most of the factories across the country. There were also emerging technologies such as nano technology which was of great utility but carried their own risks. The public should be educated about them. [Patel,2015]
- Safety and health is not just for specialists and professionals. It should become the concern of all people at workplaces. We have to collectively develop the conscience of the common people. In short, the worker should return home in the same condition as she / he came to work.[Mahadevan, 2009]
- Competition between SMEs' was found to be the major reason for implementation of safety practices in the SMEs. [Rauf, 2015]

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Hence, from the above it can be concluded that there is a dearth of systematic study to assess the safety facilities in the Paper Mills under Hindustan Paper Corporation Limited in particular which plays an important role in the economy of the state of Assam in India.

## **1.2 Research Objective:** The objectives of this paper are:

- To have an insight about the safety facilities provided to the employees of the Paper Mills under Hindustan Paper Corporation Limited.
- To know the degree of satisfaction and dissatisfaction amongst the employees regarding the same.

#### **1.3 Research Questions:** This paper has enquired into the following aspects:

- Whether the safety facilities provided to the employees in the Paper Mills under Hindustan Paper Corporation Limited are at par with the statutory requirements?
- Whether there exists a high level of satisfaction amongst the employees of the Mills about the same?

#### II. Research Methodology:

This paper is an empirical one based on survey method. The aim of this paper is to analyse the safety facilities provided to the workers in the Paper Mill.

- **1.4.1** Coverage: This paper would be confined to the information pertaining to Cachar Paper Mill and Nagaon Paper Mill in Assam, India under Hindustan Paper Corporation Limited. Moreover, in order to get a clear picture, the data were collected from the workers category of the employees only.
- **1.4.2 Data Collection:** A good piece of research endeavor involves both primary data and secondary data and this paper is also not an exception. To collect the primary data, a structured questionnaire was administered on the sample respondents who represented the technical departments of both the mills selected for study whose size was 257 (123 in Cachar Paper Mill and 134 in Nagaon Paper Mill) and also interaction were held with them. Furthermore, journals, websites etc. acted as a potential source of secondary data.
- **1.4.3 Data Analysis & Interpretation:** The data and information so collectedwas tabulated and analyzed using percentage etc. so as to know the degree of satisfaction / dissatisfaction among the sample respondents pertaining to the safety facilities in their respective mills.

Accident is an unexpected, unplanned occurrence which may involve injury or interrupts the completion of an activity. It cannot be denied that accident is "an unplanned and uncontrolled event in which the action or reaction of an object, substance, person, or radiation results in personal injury or the probability thereof. "With the growing industrialization in India, the problems of occupational health and safety have also surfaced. Every year, lakhs of accidents take place in factories, mines, railways, ports and docks leading to a large number of fatal injuries, acute ailments or permanent handicaps. An official statistics shows that more than 60 accidents take place per thousand workers in the country, many of them fatal. The rate of industrial accidents is about eight times more than that in the industrialized countries. Safety is defined as "an action, procedure or contrivance designed to lower the occurrence or risk of injury, loss and danger to persons, property or the environment." It may also be defined as "the state of being secure from harm, injury, danger or risk, often as a result of planned measures or preparations". Safety is everybody's responsibility. In order to maintain safety in the factories, it is essential that the management and workers should work together. To know about safety and to teach about safety among the employees, almost all industries celebrate the National Safety Day on 4th March, every year. Industrial safety aims at minimizing the chances of risks, injuries and accidents by implementing risk management techniques and safety management operations, improving the standard of health of the employees, monitoring the operating systems and bolstering the safety measures of an industry in general. While rapid industrial growth is imperative, it is important for it at the same time to be accompanied by enough safety regulations. The legal provisions relating to safety are primarily covered in the Factories Act, 1948. Some of the safety provisions under the said Actinclude:

a) Fencing of Machinery,b)Work on or near the Machinery in Motion, c)Employment of Young Persons on Dangerous Machines, d)Striking Gear and Devices for Cutting off Power, e)Self-acting Machines,f)Excessive Weights etc.

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<sup>&</sup>lt;sup>1</sup> A.M Sarma, Personnel and Human Resource Management Himalaya Publishing House Mumbai 2011 P-84.

<sup>&</sup>lt;sup>2</sup>R. Sivarethinamohan, *Industrial Relations and Labour Welfare Text and Cases* PHI Learning Pvt. Ltd New Delhi 2010 P-297.

Industrial accidents are the end products of unsafe acts and unsafe conditions of work. However, accidents are preventable – they do not just occur. Accident free service and accident free performance is the performance indicator of safety for any industry.

Due to extreme mechanization, our life has become very fast. Invention of new technologies enhanced the level of hazards associated with the type of jobs to be done. These hazards may be of different nature i.e. physical, mechanical, chemical, electrical, ergonomical etc. Precaution in handling, operating and maintaining the machines and equipments can restrict the possibility of accidents which costs human life, time and money. But, for hazards we cannot restrict industrial development. For this purpose, safety management is needed to safe guard the most valuable human resource.

2. Safety Facilities at C.P.M. and N.P.M.:Paper Industry falls under the category of M.H.A. i. e. Major Hazard Industry. As per the Factories Act, 1948 the different manufacturing processes being practiced in the Paper Mills are Hazardous Processes and the Paper Mills of Assam i.e. the Cachar Paper Mill (C.P.M.) and the Nagaon Paper Mill (N.P.M.) are no exception to the same.

It was reported that the safety measures in both the mills are also taken against the following hazards:

- **2.1 Mechanical Hazards:** They may be due to protruding machinery and from the moving parts of machinery, which includes revolving machinery, conveyor belts, machine tools, material handling equipment, mobile equipment, pressure vessels etc.
- **2.2 Structural Hazards:** Such type of hazards relate to working at great heights etc. and includes ladders, platforms, scaffoldings, staircase, pipe racks, roofs, building, overhead storage vessels, chimneys etc.
- **2.3 Fire and Explosion:** In Paper Industry which falls under Major Hazard Industry, there are many items which are combustible in nature starting from Bamboo to the end product Paper. Besides different varieties of oil, grease, lubricants and hydrogen gas are also prone to fire. For igniting any combustible or inflammable materials like wood, paper, petroleum products and also its bye- products three components are required i.e. fuel, heat and oxygen and they are known as fire triangle. Out of these three components if anyone is absent, fire cannot take place.

There are generally three methods of extinguishing the fire according to the fire triangle. They are:

- **2.3.1 Starvation Method:** It includes removal of the unburnt materials from the fire spot.
- **2.3.2 Smothering / Blanketing:** Here, in order to restrict the supply of oxygen, a fire resistant layer is laid down over the burning material.
- **2.3.3 Cooling:** It is the method to bring down the temperature of fire so that it comes down below the ignition temperature.
- **2.4 Electrical Hazard:** House supply is normally done on single phase with line voltage 220 volts. In addition to the same, at both the Paper Mills of Assam, there are 110 volts, 440 volts, 3.3 Kilo Volts, 11 Kilo Volts, 132 Kilo Volts supply. Electrical safety is very important. Slight carelessness in this respect can be fatal. It is dangerous to work without using proper equipment and observing precautionary measures.
- **2.5 Physical Hazards:** Physical hazards include heat and cold, noise and vibration, etc.
- **2.6 Biological Hazards:** In the Paper Mills, workers may be exposed to ineffective and parasitic agents. The occupational diseases in this category are brucellosis, anthrax, tetanus, fungal infections etc.
- **2.7 Chemical Hazards:** There is hardly any industry which does not make use of chemicals. The chemical hazards are increasing with the introduction of newer and complete chemicals. Exposure to industrial chemicals may cause skin diseases, allergy, cancer etc. Statutorily, the responsibility of maintaining Safety and Occupational Health in any factory lies on the occupier. Normally, the Factory Management maintains Safety and Occupational Health Management System with the active participation of the workers and by the aid of the Government. The management of both the Cachar Paper Mill and Nagaon Paper mill undertakes the following activities in this regard.
- 3. Training: All the technical employees of both the Cachar Paper Mill (C.P.M.) and Nagaon Paper Mill (N.P.M.) have been imparted training on Safety, First-aid and Fire-fighting. Besides, both the external as well as internal faculties conduct training programmes on specific topics related to safety. During training period, information about the probable hazards arising from exposure to hazardous chemicals including health hazards resulting probable occupational diseases and the measures to overcome such hazards are provided to each participants. It has been reported that the employees of both the mills are also sent to the places like the Regional Labour Institute, Kolkata for participating in training programmes relating to safety.
- 4. Workers' Participation in Safety Management / Motivational Programmes: It includes the following:
- **4.1 Safety Committee:** At both the Paper Mills i.e. the Cachar Paper Mill and the Nagaon Paper Mill a Safety Committee has been constituted which is a pre requisite as per the provision laid down under Section 41(a) of the Factories Act, 1948. The Safety Committee consisted of the equal number of representatives of Workers and the

Management which was twenty (20) i.e. ten (10) each from both the Workers' and the Management. The main purpose of the Safety Committee was to promote co- operation between the Management and the Workers so as to maintain proper safety and health facilities at the work place and to periodically review the measures taken in that respect. Theorganization and the constitution of the Safety Committee was the same as it was in the case of the Canteen Committee, However, the representatives of the Committee were nominated from both sides i.e. the Management and the Workers. As per the provisions of the Safety Committee, it was important that there must be regular meetings i.e. quarterly to discuss, and take corrective action for all kinds of lapses related to safety of both the Mills. The term of this Committee is one (1) year and is reconstituted every year at the Mills.

- **4.2 Safety Suggestion Boxes:** It was reported and also observed during the field work that Safety Suggestion Boxes have been kept in front of the Time Office of both the mills to facilitate employees to give their suggestions regarding safety and health.
- **4.3** National Safety Day & Fire Service Day: On 4<sup>th</sup> March every year, National Safety Day is celebrated at both Cachar Paper Mill and Nagaon Paper Mill. Fire Service Day is also being celebrated at the Paper Mills every year. On this day, Safety Banners are displayed at various places, and Safety Badges are distributed to all the employees. Employees of both the mills are also involved in such celebration through Safety Slogans, Essay Competition, Discussions relating to Safety, Seminars, Meetings, Safety Film shows, etc.
- **4.4 Different Individual and Departmental Safety Prizes / Awards:** In both the mills different Individual and Departmental Safety Prize / Award which includes Best House Keeping, Highest Accident-free Man-days Work, Best Safety Suggestion, Appreciatory Safety Awards etc. has been introduced under the motivational programmes.

It was reported that 'Green Tech Safety Silver Award' 2003-2004 was awarded to Hindustan Paper Corporation Ltd. – Nagaon Paper Mill (N.P.M.) by Green Tech Foundation, New Delhi.

Finishing House Department of Nagaon Paper Mill was awarded the first prize in House-keeping during 2008-2009 and second prize in 2007-2008, while the Paper Machine Department of Nagaon Paper Mill was awarded the second prize in House-keeping during 2008-2009.

- **Display of Work Instructions, Cautionary Notices, Safety Signs, Posters etc.:** All these are displayed in the shop-floors (as and where applicable) in three (3) languages. In case of Cachar Paper Mill, they are written in English, Hindi and Bengali; while in case of Nagaon Paper Mill they are written in the English, Hindi and Assamese.
- **6. Regular Mock Drills** i.e. twice in a month according to this Emergency Plan is conducted in the mill involving the C.I.S.F. Personnel as well as the employees of both the mills. The management of both the C.P.M. and N.P.M. has clearly described the roles and responsibilities of each employee during emergency and a copy of the same are issued to each of the employees.
- **7. Supply of Personal Protective Equipment (P.P.E.):** In both the Paper Mills, all necessary P.P.Es. (both respiratory and non-respiratory) are supplied to the employees as and when necessary and using the same is compulsory as a statutory requirement. The various safety equipments provided to the workers of the technical departments includes industrial safety shoe, safety helmets, gum boots, various kinds of hand gloves, different types of safety goggles, ear plugs and muffs etc.
- **8.** Occupational Health & Safety Policy: Both C.P.M. and N.P.M. have prepared an Occupational Health & Safety Policy, which has been duly approved by the Chief Inspector of Factories, Assam. This Policy is displayed in conspicuous places of the mills and a copy of the same is being issued to each of the employees.
- **9. Fire Fighting:** Both C.P.M. and N.P.M. have fire hazards. However, in both the Paper Mills fire hazard is from 'A' Class fire i.e. the fire hazard where materials like bamboo, wood, paper, and any carbonaceous compound are involved. The Fire Service Wing at both Cachar Paper Mill and Nagaon Paper Mill is equipped with six (6) Fire tenders which includes four (4) fire tenders i.e. two each at C.P.M. & N.P.M. and two (2) Water-cum-foam Tender i.e. one (1) each at both the mills. All the Fire Fighting Equipments / installations are deployed as prescribed by the Tariff Advisory Committee (T.A.C.). The type of Fire Extinguishers, its Quantity etc. deployed in the shop floors is displayed by FIRE POINTS. The Fire Service Wing is manned by C.I.S.F. Personnel, who are professionally trained in this line. There are more than six hundred (300 each mill) underground fire hydrant points and more than 2000

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(i.e. 1000 in each mill) fire extinguishers of different kinds. There also exists sprinkler system at both C.P.M. & N.P.M.

- **10. Insurance :** The Caustic Soda / Chlorine Plant at both C.P.M. and N.P.M. have been insured under the 'Public Liability Insurance Act, 1991' for the purpose of providing immediate relief to the persons (including the residents in the vicinity) effected by accidents if any, occurring while handling hazardous substances. Besides, the entire material and equipment and employees of both the Paper Mills are covered under 'Fire Insurance' and 'Group Link Policies' respectively.
- 11. Safety Audit: It has been informed by the management that in Cachar Paper Mill and Nagaon Paper Mill, both 'External' and 'Internal' Safety Audits are conducted for providing the top management with an independent assessment of the basic direction of safety programme as well as to identify the specific areas for improvement. Due to its very nature, objective and scope, safety audit ensures that safety is given importance in all management decisions and actions.
- **12. Work Place Monitoring:** At both C.P.M. and N.P.M., work place monitoring in respect of Gas, Dust and Noise exposures is done regularly to check that it is within the Threshold Limit Values (T.L.V.).
- **13. Supply of Medicines, etc.:** The management of both the C.P.M. and the N.P.M. has the practice to supply medicines which include cough syrup, throat lozenges etc. to the employees working in hazardous areas of the mills.
- **14. Periodical Medical Examination:** In Cachar Paper Mill and Nagaon Paper Mill, Periodical Medical Examination is conducted half yearly and upto date medical records are maintained in respect of the workers who are exposed to any chemical, toxic or other harmful substances, which are manufactured, stored, handled or transported in the mills.
  - To undergo Periodical Medical Examination in respect of the employees having exposure to the aforesaid chemicals is a statutory requirement and mandatory. It is also a statutory requirement and also mandatory for the employees like Drivers, Crane Operators, Railway shunters, and Signal Man and also for the employees working in high noise areas such as Chipper House, Utility, Soda Recovery Boiler, Paper Machine etc. to undergo Ophthalmic Test and Audio-metric Test respectively.
- 15. Occupational Health Centre: "There is no occupation where there is no Occupation Health Hazard, and there is no Occupational Health Hazard which is not preventable".

  Cachar Paper Mill and Nagaon Paper Mill are certified with ISO 9001 for Quality Management System (Q.M.S.), ISO 14001 for Environment Management System (E.M.S.) and O.H.S.A.S. 18001 for Occupational Health &Safety. There exists one Occupational Health Centre at both the Mills and the same is under the safety department of the mills. The Centre is located inside the mill premises. Such centers of both C.P.M. and N.P.M. are manned by Doctors having statutorily required qualification and necessary staff. These centers undertake health promotion activities which include:
- a) Pre-Employment tests.
- **b)** Post–Employment tests.
- c) Pre Retirement tests.
- **d)** Tests depending on the hazardous jobs performed.

The Occupational Health Centre at both the mills provides counselling to the employees regarding healthy life style, ideal weight according to age and height etc. Regular advice regarding diet is also given. The centres have the facility of E.C.G. & L.F.T. and the charges are nil. The total staff strength at the Occupational Health Centre of both C.P.M. and N.P.M. are the same i.e. Doctor-1, Technician-2, Dresser-1, Supporting Staff -2 and there are 2 beds at each Centre of both the mills

The Occupational Health Centre runs from 8.00 a.m. to 5.00 p.m. At the Occupational Health Centre at Cachar Paper Mill, an attempt is made to give training on behavioral safety where 2 persons from each department comes voluntarily and they would be trained how to deal with a person who meets with an accident.

**16. First-Aid Box:** In both the mills, each section was supplied with First- Aid Box. Necessary medicines were supplied as and when required. Moreover, Printed Plastic Stickers / Leaflets with instructions and diagrams for Rescue and Artificial Respiration during electric shock have been displayed in many areas of both the Paper Mills

It was also told that TREM CARDS were issued to the drivers carrying hazardous chemicals / wastes outside the Mill premises, which envisage the precaution to be undertaken during transportation / spoilage / accident etc.

As the mills were ISO-14001 certified, the maintenance of the Environmental System in the mills was taken care of by the standard itself.

- 17. Investigation of Accident / Dangerous Occurrence: At both the Paper Mills of Assam i.e. C.P.M. and N.P.M., each accident / dangerous occurrence was investigated by the Safety Department and the reports with necessary recommendations were sent to the concerned employee and sectional Head for prevention of future recurrence. Notice for all Reportable accident / Dangerous occurrence were sent to the statutory authority. Annual accident statistics showing the number of accident / dangerous occurrence, man days lost, type of accident, body part wise injury, frequency rate, severity rate, causes of accident etc. were sent to H.O.D./G.M. (Works) and the Chief Executive (C.E.) of both the mills. The individual section of both the mills maintains a register of Near Miss Accident and takes necessary preventive measures on the basis of those Near Miss Accidents against future recurrence.
- **18. Plant Safety Inspections:** The Safety Officers of both the mills inspect all areas of their respective mills fortnightly with a special attention to detect any Unsafe Act, Unsafe Condition, and Statutory Violations if any, and send report to the concerned Head of the Section (H.O.S.) for prevention of recurrence of such incident.
- 19. House Journal: A quarterly house journal named 'Darpan' and 'Kompol' by name is being published by the Cachar Paper Mill and Nagaon Paper Mill respectively. Such journals contain different news and relevant information which also includes those related to Occupation Health & Safety.
- 20. Safety Calendar and Safety Diary: In C.P.M. and N.P.M. every year safety calendars and safety diaries are distributed in the shop floors and to the shop floor managers respectively.
  The evaluation of safety facilities by the sample respondents of C.P.M and N.P.M have been based on nine parameters which are highlighted in the following table:

TABLE NO. 1.1: EVALUATION OF SAFETY ACTIVITIES AT C.P.M. AND N.P.M. BY THE SAMPLE RESPONDENTS

Sl No.	Parameters	CACHAR PAPER MILL (C.P.M.)				NAGAON PAPER MILL (N.P.M)			
		No. of Respondents Satisfied	Percentage	No. of Respondents Dissatisfied	Percentage	No. of Respondents Satisfied	Percentage	No. of Respondents Dissatisfied	Percentage
1	Training	29	23.58	94	76.42	37	27.61	97	72.39
2	Workers Participation in Safety Management	22	17.89	101	82.11	29	21.64	105	78.36
3	First Aid Box	123	100.00	00	0.00	123	91.79	11	08.21
4	Plant Safety Inspection	24	19.51	99	80.49	23	17.16	111	82.84
5	Supply of Medicine	123	100.00	00	0.00	130	97.01	04	02.99
6	Periodical Medical Examination	30	24.39	93	75.61	25	18.66	109	81.34
7	Supply of Safety Equipments	26	21.14	97	78.86	23	17.16	111	82.84
8	Work Place Monitoring	123	100.00	00	0.00	134	100.00	00	0.00
9	Safety Audit	28	22.76	95	77.24	26	19.40	108	80.60

Source: Field Survey.

- **21. Analysis and Interpretation**: Since safety facilities are more associated with the workers of the technical departments, hence, the sample workers of the technical departments only of both Cachar Paper Mill and Nagaon Paper Mill have been considered.
  - From the aforesaid table the following observations have been made regarding the safety facilities at their respective mills:
- 21.1In C.P.M., out of 123 sample respondents representing the technical departments 94 i.e. 76.42% of them and 29 i.e. 23.58% of them have expressed their dissatisfaction and satisfaction respectively towards the 'training facilities' pertaining to safety; while in N.P.M., it has been seen that out of 134 sample respondents of the technical departments, 97 i.e. 72.39% of them were dissatisfied and 37 i.e. 27.61% were satisfied. It has been reported by 32% i.e. 31 of the dissatisfied sample respondents of C.P.M. and 36% i.e. 35 of them at N.P.M. that the workers were sent for training on seniority basis as a result of which the workers who actually required training or who were rather interested to undergo training relating to safety could not avail the same.
- 21.2Regarding 'workers participation in safety management', it can be observed from the above table that in C.P.M., out of 123 sample respondents, 101 of them which comes to 82.11% and 22 of them which is 17.89% were dissatisfied and satisfied respectively. The picture is almost same in case of N.P.M., where out of 134 sample respondents, 105 of them which is 78.36% and remaining 29 of them which comes to 21.64% have expressed their dissatisfaction and satisfaction respectively. The discontented sample respondents of both the mills reported that the safety committee should meet once in a month to discuss and take corrective action for all kinds of lapses related to safety of both the mills.
- **21.3**As far as **'first aid box'** is concerned, it is very much clear from the table that in C.P.M. all the sample respondents and in N.P.M., 123 i.e. 91.79% of them were satisfied with the same. However, 11 i.e. 8.21% of the sample respondents in N.P.M. were dissatisfied and had shown resentment for the same. It was told by them that sometimes the contents of the first aid box were inadequate which is a gross carelessness on the part of the concerned authority.
- **21.4**In case of 'plant safety inspection', it has been seen that majority of the sample respondents in both the mills have shown their resentment. In C.P.M., 99 and in N.P.M. 111 of the sample respondents have shown their dissatisfaction regarding the same. Most of them were of the view that the inspection should be done more strictly so that the workers think twice before making violation of safety rules.
- **21.5**Regarding the 'supply of medicine', it can be seen from the table that in C.P.M., all the sample respondents have shown their satisfaction and hence, had no resentment for the same. But in N.P.M., a very negligible portion of the sample respondents i.e. 4 of them had shown their resentment for the same. It was reported by them that throat lozenges and cough syrup etc. should be provided in sufficient quantities to the employees working in hazardous areas of the mill.
- **21.6**In case of 'periodical medical examination', it is very much evident from the table that in C.P.M. 93 of the sample respondents were not satisfied and 30 i.e. 24.39% of them were satisfied about the said parameter. In N.P.M., also more or less the same scenario was witnessed where 81.34% of the sample respondents i.e. 109 of them have shown their dissatisfaction while 25 i.e. 18.66% of them were satisfied with the same. It has been reported by the dissatisfied respondents of both the mills that such medical examination should be conducted monthly on those workers of both the mills who are severely exposed to different types of chemicals, toxic and other harmful substances that are stored and handled in the mills.
- 21.7Regarding supply of 'safety equipments', it can be noticed from the table that in both the mills a considerable size of the sample respondents has displayed their dissatisfaction i.e. 97 and 111 in C.P.M. and N.P.M. respectively. It was informed by those respondents that the safety equipments like helmets, masks, goggles, gloves etc. and also the safety shoes were inferior in quality and inadequate in quantity. Hence, the management should take steps to improve both the quality and quantity of the same.
- **21.8**In regard to 'work place monitoring', it can be seen in table 3.14 that all the sample respondents of the technical departments at both the mills have shown their satisfaction and had no resentment for the same.
- **21.9**Regarding 'safety audit', also it can be inferred from the table that 95 i.e. 77.24 % and 108 i.e. 80.60% of the sample respondents of C.P.M. and N.P.M. were dissatisfied; while 28 i.e. 22.76% and 26 i.e. 19.40% of the respondents in C.P.M. and N.P.M. have expressed their satisfaction regarding the aforesaid parameter. It was reported by the dissatisfied respondents of both the mills that though there is a practice of conducting safety audit in both the mills, but the basic purpose of conducting such audit is not being fulfilled. So, more emphasis should be laid so as to fulfill the purpose of conducting safety audit in both the mills.

It has been reported by the Safety Officers of the two mills that the workers generally use Safety items like

Safety Helmets, Hand Gloves, and Safety Shoes etc. while performing their work. It has also been told by them that if any worker whether regular or under any contractor is found without the Safety items while at work then the said employee is penalized with a fine of Rs. 500 (Five hundred only) and the said amount is deducted from his wages.

**22. Shop - Floor Councils:** For effective participation, H.P.C. has the provision of shop – floor councils. In Cachar Paper Mill and Nagaon Paper Mill, there were ten (10) shop – floor councils for effective co-operation and participation of workers at various levels in both the Mills. These ten shop-floor council covers all the departments of both the Mills. One shop- floor council contains one department / section / shop-floor.

The shop-floor councils were constituted with equal number of representatives from both the Management and the workers at both C.P.M. and N.P.M. The number of members in each shop-floor council differs from shop to shop depending upon the size of the shop and the number of workers employed there. The representatives of the management and the workers were nominated in the shop-floor councils in the mills.

The Chairman of every shop floor council is the General Manager (Works); while the Secretary is the representative of the workers from the shop / department concerned. Other representatives are the members of the Council.

Every shop-floor council deals with the operational matters of the department /section / shop at the mills. It has been reported that the following guidelines were followed so as to make the discussion in these councils more meaningful:

- **22.1**The members should be willing to share information and to have free and frank discussions.
- **22.2**The Councils should not be converted into grievance handling process.

It was also told that the shop-floor councils meet once in a fortnight at a specified and notified time, date and venue to encourage the participation of employees in various activities within the shop / department, wherever, group efforts were needed to achieve the goals.

- 23. Occupational Health Services: Man has been subjected to some occupational health hazards or the other from the very beginning of human civilization. In fact, no job or occupation is free from hazards. Every year throughout the world more than 1, 80,000 workers die as a result of employment accidents and occupational diseases, and some 110 million persons suffer non-fatal employment injuries. The occupational health plays a key role of prevention, treatment of health problem and adaptation of work to the workers. Its wide range of activities take two (2) main forms supervision of workers 'health, including action to maintain health at the highest possible level, and supervision of the working environment.
  - The occupation health service in an industry should aim at:
- **23.1**Protecting the workers against health hazards which may arise out of their work or the conditions in which it is carried on and,
- **23.2**Contributing towards the workers' physical and mental adjustments and establishment and maintenance of the highest possible degree of physical and mental well being.
  - The role of occupational health service should be essentially preventive. Its functions should be:-
- 23.3To identify occupational hazards and suggest measures for their control.
- **23.4**To detect occupational or other diseases and give initial treatment.
- **23.5**To render advice about the placement of people in suitable work.
- **23.6**To provide necessary advice relating to the supervision of conditions at work that may influence health and general sanitation.
- 23.7To undertake health education.

### **III. Conclusion And Implications**

This paper has been written on a large – scale industry under the Public Sector in an industrially backward region of Assam, India. It was oriented mainly to find out the causes of dissatisfaction if any, amongst the workers about the safety facilities provided to them. It is no doubt that there existed the facilities which are statutory in nature, yet a total satisfaction of the beneficiaries remained absent. Hence, the research questions that the safety facilities provided to the employees of the Paper Mills are at par with the statutory requirement is justified but whether there exists a high level of satisfaction amongst the employees of the Paper Mills about the samecannot be justified. It cannot be denied that an effective management is one that keeps its employees well satisfied. When an organization cares for its employees, it definitely gets their support in reward. Organizational investment in employees' well— being results in higher satisfaction among the employees. Management can take care of its employees only if it knows what the employees expect. This paper reveals that due emphasis towards the Safety of the employees can contribute to the performance and satisfaction of the employees. Lastly, it was suggested that the

management should be more concerned for providing the safety facilities to its employees. A practice should be developed to make a periodical review of such facilities.

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