A Study on Workers Health and Safety
UNDEARTKEN AT VAIKUNTH CHEMICALS PVT LTD

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ABSTRACT

Occupational health and safety (OHS) is a multidisciplinary field that comprises the recognition, prevention and control of hazards in the workplace in order to promote worker’s health which is one of the millennium development goals. This research was conducted with the aim to study the workers level of awareness towards health and safety and study about the measure of the workers at the work spot towards Vaikunth Chemicals PVT LTD at Ankleshwar city. Convenient sampling technique has been adopted with the sample size of 100 respondents. The questionnaire survey method was used to collect data for conducting the study. Frequency analysis, One sample t-test and cross tabulation were used as data analysis statistical tools. The study shows the effective arrangements for communication, medical facility, working condition and role of management in implementing health and safety.

KEY WORDS: Occupational health and safety, Vaikunth Chemicals Private Limited

INTRODUCTION

Due to rapid industrialization, industrial workers are exposed to several types of hazards and accidents. Every year lakhs of workers are injured due to mechanical, chemical, electrical and radiation hazards and it leads to partial or total disablement. So in recent years, greater attention is given to health and safety due to pressure from government, trade unions, labor laws and awareness of workers. Successful occupational health and safety requires the collaboration and participation of workers in health and safety programs, and involves the consideration of issues relating to occupational medicine, industrial hygiene, education, engineering safety, etc. work plays a
central role in people’s lives, since most workers spend at least eight hours a day in the workplace, whether it is on a plantation, in an office, factory, etc. therefore, work environment should be safe and healthy. The efficiency of workers depends to a great extent on the environment in which the work. Work environment consists of all the factors, which act and react on the body and mind of the workers. Occupational health issues are often give less attention than occupational safety issues because the former are generally more difficult to confront. However, when health is addressed, so is safety, because a healthy workplace is by definition also a safe workplace. The converse, through may not be true- a so-called safe workplace is not necessarily also a healthy workplace. The important point is that issues of both health and safety must be addressed in every workplace.

REVIEW OF LITERATURE

(Berhe Beyene Gebrezgiabher, Desalgn Teremke, Tesfaye Yetum, 21 January 2019) had conducted research on “Awareness of occupational hazards and utilization of safety measures among workers in Aksum and Adwa towns, tigray region, Ethiopia, 2013” the objectives of this study to assess workers level of awareness towards occupational hazards and their adherence to safety measures. The researchers used logistic regression analyses. The researcher found workers should be from welding related professionals or should be given an orientation related to welding and its risk factors. Further research should be done to assess knowledge and practice on the health and safety outcomes and other components of safe practices.

(Ms. P.Vinotha, Ms. R. Suriya, Ms. S. Valar Mathi, April 2015) had conducted a research on “a study on industrial health and safety measures in H & R Johnson India pvt ltd at Thennangudi” the objectives of this study to study about the protection measures of the employees in the work spot. To know about the safety education to improve the quality of work life. To know about the occupational health and safety assessment specification training programme to improve their work environment through minimizing the risk by hazard control. The researcher found that the workers opinion about the health and safety from different units. The labor also give good suggestions about health and safety, there was surely an enthusiastic response to the project from all side.

(V.H.P.Vitharana, G.H.M.J. Subashi De Silva, Sudhira De silva, 2015) had conducted research on “health hazards, risk and safety practices in construction sites- a review study” The objective of this article to review previous research studies on investigation of health hazards and risks in construction sites to identify causes of poor safety practices and method for improving construction site safety. The researcher used questionnaire method. The researcher found this review attempts to identify health hazards, risk and cause of poor safety practices in construction sites awareness on possible risk factors and knowledge on how to reduce these risk factors among workers and constructors will enhance site safety.

(Sybill Geldart, Christopher A. Smith, Harry S. Shannon, Lynne Lohfeld, 5 January 2010) had conducted a research on “organizational practices and workplace health and safety: A cross sectional study in manufacturing companies” the objectives of this study to explore a number of organizational approaches used in North America and abroad to see if they characterize safer workplace in manufacturing firms in the province of Ontario. The researchers used lost time frequency rate. The researcher found that the managerial policies, practices and attitudes are related to and perhaps have a casual effect on workplace safety.

(Michael J. Smith, Michael J. Colligan Donald L. Tasto, 27 March 2007) had conducted a research on “health and safety consequences of shift work in the food processing industry” the objectives of this article to verify the European finding that showed increased incidence of sleep disturbance and digestive disorders for shift workers and to clarify worker accident risk due to shift work. The researcher found this study provides a first step for evaluating the influence of American shift systems on worker health. As the finding demonstrate more research necessary to
clarify the shift work influence observed, such as why there are definable sickness absence and accident efforts for men and not for women.

RESEARCH METHODOLOGY

Research Objectives:

- To study workers level of awareness towards health and safety.
- To study about the protection measures of the workers at the work spot.
- To assess the effect of workers health and safety for preventing occupational diseases and injuries.

METHODOLOGY OF THE STUDY

The methodology aspects used for information is done through the quantitative questionnaires. This study aims to find out the level of awareness towards health and safety among the workers. In this study the population targeted is workers of chemical industry. Size for the data collection is 100. Convenient sampling technique is used as research method. Area of research is Ankleshwar city in Gujarat. Statistical method used to analyze the data that had collected from the respondents is done through SPSS software in that Frequency analysis, Cross tabulation and One sample T-test has been applied.

Result & analysis

<table>
<thead>
<tr>
<th>Are you aware of the health and safety measures adopted in the company</th>
<th>Frequency</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Yes</td>
<td>97</td>
<td>97.0</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>3</td>
<td>3.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

| Do you have proper drinking water facility in the company | Case processing summary |
|---|---|---|---|---|
| | Cases | | | |
| Valid | Missing | Total |
| Age*proper drinking water facility | N | Percent | N | Percent | N | Percent |
| 100 | 100.0% | 0 | .0% | 100 | 100.0% |
**Age*proper drinking water facility Cross tabulation**

<table>
<thead>
<tr>
<th>Age</th>
<th>Always</th>
<th>Sometimes</th>
<th>Often</th>
<th>Rarely</th>
<th>Not at all</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-30</td>
<td>13</td>
<td>9</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td>31-40</td>
<td>20</td>
<td>19</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>48</td>
</tr>
<tr>
<td>41-50</td>
<td>9</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>35</td>
<td>14</td>
<td>4</td>
<td>2</td>
<td>100</td>
</tr>
</tbody>
</table>

**Do you have any stress towards work**

<table>
<thead>
<tr>
<th>Age*stress towards work</th>
<th>Valid</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Percent</td>
<td>N</td>
<td>Percent</td>
</tr>
<tr>
<td>100</td>
<td>100.0%</td>
<td>0</td>
<td>.0%</td>
</tr>
</tbody>
</table>

**Age*stress towards work Cross tabulation**

<table>
<thead>
<tr>
<th>Age</th>
<th>Always</th>
<th>Sometimes</th>
<th>Often</th>
<th>Rarely</th>
<th>Not at all</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-30</td>
<td>2</td>
<td>5</td>
<td>9</td>
<td>6</td>
<td>8</td>
<td>30</td>
</tr>
<tr>
<td>31-40</td>
<td>1</td>
<td>12</td>
<td>12</td>
<td>9</td>
<td>14</td>
<td>48</td>
</tr>
<tr>
<td>41-50</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>21</td>
<td>24</td>
<td>19</td>
<td>33</td>
<td>100</td>
</tr>
</tbody>
</table>

**One sample T- test**

- **Know the first aid activities and contents**
  - Test value = 2
  - t = -.271, df = 99, Sig. (2-tailed) = .787, Mean difference = -.02000, 95% confidence interval of the difference = [-.1665, .1265]

- **Provides health check up**
  - Test value = 2
  - t = 1.033, df = 99, Sig. (2-tailed) = .304, Mean difference = .08000, 95% confidence interval of the difference = [-.0736, .2336]

**H0**: Workers are not known the first aid activities and contents.

**H1**: Workers are known the first aid activities and contents of first aid kit.
**H0**: The Company does not provide health and check up for workers.

**H1**: The Company provides health and check up for workers.

**FINDINGS**

Only 3% of the respondents respond that they are not aware of the health and safety measures and 97% of the respondents are aware of the health and safety measures.

2% of the respondents say that they have no effective arrangements for communicating health and safety matters; only 98% agrees that they have effective arrangements for communicating health and safety matters.

Majority of the respondents are told that company is providing medical facility to the workers.

53% of the respondents respond that they attended the health and safety training programme but 47% of the respondents says that they are not attended any health and safety training programme conducted in the company.

Most of the respondents respond that always they have proper drinking water and some of the respondents say that sometimes they have proper drinking water and very few of the respondents say often and rarely they have proper drinking water.

28% of the respondents strongly agree that they are aware about the first aid activities and contents of the first aid kit and 46% of the respondents simply agree that they are aware about the first aid activities and contents of the first aid kit.

Greater part of the respondents agrees that the company implements effective disciplinary procedures and some of the respondents simply agree that the company implements effective disciplinary procedure.

26% of the respondents strongly agree that their environment is safe to work and 37% of the respondents simply agree that their environment is safe to work and 33% of the respondents say that they have no idea about the safe working environment.

Common of the respondents says often they are maintaining the machines properly and some of the respondents respond that sometimes they are maintaining the machines properly and only very few of the respondents says rarely they are maintaining the machines properly.

28% of the respondents say often the accidents are happened and 38% of the respondents say rarely the accidents are happened and 23% of the respondents respond that sometimes the accidents are happened and only 9% of the respondents say that always the accidents are happened.

21% of the respondents say that they are strongly satisfied with the health and safety measures, 34% of the respondents say that they are simply satisfied with the health and safety measures and 15% of the respondents say that they have no idea about the satisfaction level from health and safety measures.
18% of the respondents say that they are strongly agreed with the role of management in implementing health and safety, 30% of the respondents say that they are agreed with the role of management in implementing health and safety, 37% of the respondents say that they are neutral with the role of management in implementing health and safety and 15% of the respondents say that they are not agreed with the role of management in implementing health and safety.

**CONCLUSION**

From the study I had learned that, the health and safety measures adopted in Vaikunth Chemicals Pvt. Ltd. are provided to the workers according to the provisions. I also learned that the awareness of the workers about health and safety in the workplace is not enough. Also repeated accidents like electric shocks, finger injuries are occurred in the workplace. Suitable ideas were suggested to avoid those accidents and to improve the health and safety measures. The role of management in implementing health and safety in the organization is very effective. Most of the workers were very satisfied with the health and safety measures adopted in the company.

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