

**A STUDY OF OCCUPATIONAL HEALTH AND SAFETY AT SUDARSHAN  
CHEMICAL PVT. LTD. IN PUNE CITY**

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**ABSTRACT**

It is surprising to note that majority of the respondents covered under the study are illiterates or under-educated. Regarding the health ailments, it is discovered that there is respiratory problems to a greater extent. Hence, it is needed to arrange for modern ventilation facilities, so as to provide fresh air to the workers in the work environment. Sudarshan Chemical Ltd is to be appreciated in organizing industry sponsored regular health camps and regular awareness campaigns on health and safety to increase awareness about the health and safety and test the health problems of the workers.

**Key Words:** - Illiterates, Ventilation, Safety, Health, Ailments, Respiratory etc.

## INTRODUCTION

Every occupation has its own hazards. One should take adequate and proper precautions to save himself. Companies should look into the safety of their workers beforehand. To have proper safety and precautionary measures against occupational hazards is the fundamental right of all workers. The constitution of India gives immense priority to the occupational hazards and its safety. In India, a huge number of people die in accidents and diseases. Occupational hazards cause or contribute to the premature death of millions of people worldwide and result in the ill health or disablement of hundreds of millions more each year. The burden of disease from selected occupational risk factors amounts to 1.5% risks of the global burden. The World Health Report 2002 places occupational risks as the 10th leading cause of morbidity and mortality. According to the Report, work related injuries cause nearly 3,10,000 deaths each year, and nearly 1,46,000 deaths are attributable from the region remains largely uncharacterized. Member countries of South East Asia Region have witnessed major occupational health problems highlighted by the Bhopal disaster in India and the Kader Toy Factory fire in Thailand. However, workers of the region are exposed to a wider range of occupational hazards and risks including chemical, physical and biological hazards as well as inadequate ergonomics practice and high psycho-social stress.

### **Occupational Health and Safety in Chemical Industry**

The chemical industry provides direct employment for an estimated 8,50,000 workers worldwide (ERM, 2002). The chemical manufacturing industry is labour intensive and uses large scale and potentially hazardous manufacturing processes. The industry experiences accident rates that are high compared with some other manufacturing industries. There are a number of hazards inherent to the chemical production process. Some examples for health are:

(i) exposure to dust and high temperatures; (ii) contact with allergic substances; and (iii) noise exposure and some examples for safety. (iv) falling / impact with objects; (v) hot surface burns; and (vi) transportation.

These mainly impact on those working within the industry, although health hazards can also impact on local communities. For quarrying operations there are also hazards associated with blasting and rock handling. Workers are also at risk from hazards common to many industrial

working environments: general slips, trips and falls, machinery hazards and electrical hazards. These hazards are discussed as under.

### **Health Management at Chemical Industry**

The main health hazards which may have implications for health associated with the chemical industry and its allied activities (aggregates and concrete) are typically as follows:

(i) Airborne dust (ii) Noise and vibration (iii) Dangerous atmospheres (iv) Radiation hazards (v) Handling of alternative fuels.

Specific guidelines on these occupational health issues are given in the sections that follow. Some other health issues that may be encountered but are not specifically related to the chemical industry and its associated activities are:

(i) Smoking and other drug dependencies. (ii) High blood pressure (iii) Diabetes (iv) Nutrition and obesity (v) Stress and mental health (vi) Heat stress, cold and wet conditions (vii) Heart disease (viii) Diseases such as HIV/AIDS, Typhoid, Malaria.

Many companies do include internal guidelines and support on these issues as part of their employee well-being programmes. Several also provide similar support for employee's families and local communities, which is very laudable. The present paper examined the occupational health and safety in chemical industries in general and specific aspects of occupational health and safety of workers in Sudarshan Chemical Ltd.

### **OBJECTIVES**

- (i) To assess the awareness of health of the workers in Sudarshan Chemical Ltd.
- (ii) To look into the security measures taken by Sudarshan Chemical Ltd for safety of the workers.
- (iii) To know about the safety equipments that is provided by Sudarshan Chemical Ltd for workers.

### **RESEARCH METHODOLOGY**

- 1) Research Type: - Descriptive Research Method
- 2) Sampling Technique: - Simple Random Sampling

3) Sample Size: - 150 Workers

4) Data Type: - Primary & Secondary data

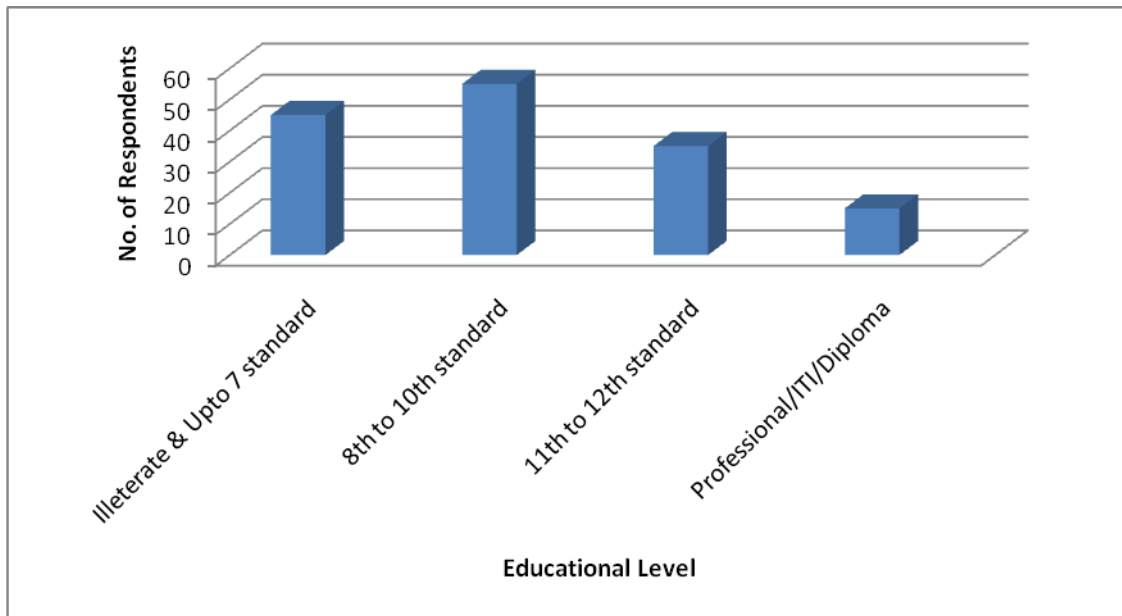
5) Tool for Data Collection: - Questionnaire for 150 Workers

**DATA ANALYSIS & INTERPRETATION**

**i) Education level of the Respondents**

<b>Educational Level</b>	<b>No. of Respondents</b>	<b>Percentage</b>
Illeterate and up to 7 <sup>th</sup> standard	45	30
8 <sup>th</sup> to 10 <sup>th</sup> standard	55	36.66
11 <sup>th</sup> to 12 <sup>th</sup> standard	35	23.34
Professional/ITI/Diploma	15	10
<b>Total</b>	<b>150</b>	<b>100</b>

**Table.1.1**



**Fig.1.1**

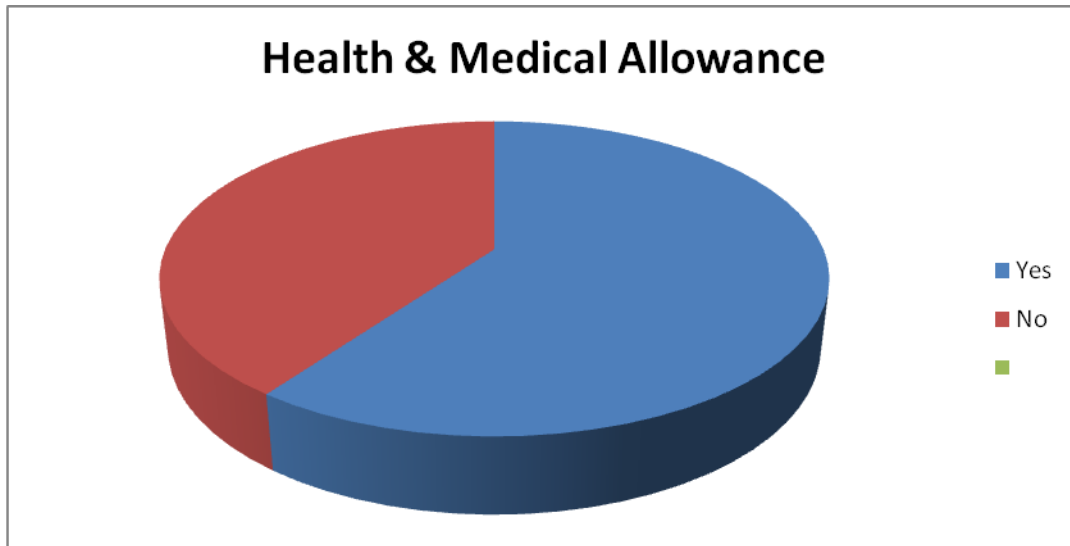
**Interpretation:-** The above fig.1.1 made it clear that of the 150 respondents covered under the present study about 45 (30%) are illiterate and completed up to 7th Standard school, followed by

about 55 (36.66%) of the workers got education between 8th to 10th Standard, about 35 (23.34%) of the respondents got education between the 11th to 12th Standard (Pre- University Education) and the remaining only 15 (10%) of the respondents stated that they have got professional certificate, ITI and diploma certificates in specified trade.

**ii) Providing Health & Medical Allowance**

Particulars	No. of Respondents	Percentage
Yes	90	60
No	60	40
<b>Total</b>	<b>150</b>	<b>100</b>

**Table.1.2**



**Fig.1.2**

**Interpretation:-**It is noted from the above table that about 90 (60%) of the workers covered under the study stated that the Sudarshan Chemical Ltd is providing Health and Medical Allowances to the workers and the remaining 60 (40%) of the workers stated that the company does not give the Health and Medical Allowance

iii)Regular Health Ailments of the Workers

Particulars	No. of Respondents	Percentage
Respiratory Problem	30	20
Bronchitis	30	20
Tuberculosis	25	16.67
Cancer	55	36.67
HIV/AIDS	05	3.33
Others	05	3.33
<b>Total</b>	<b>150</b>	<b>100</b>

Table.1.3

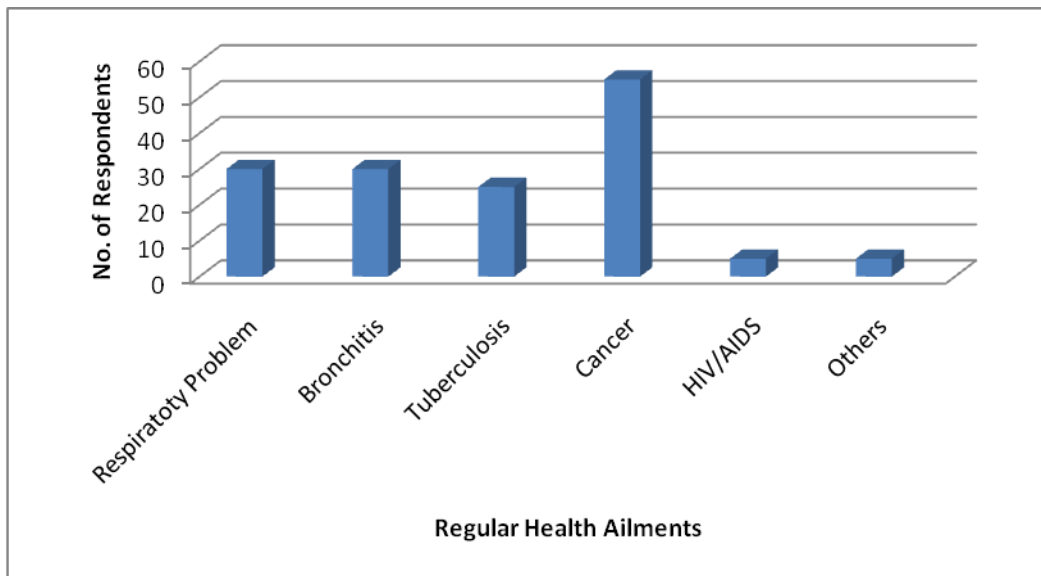


Fig.1.3

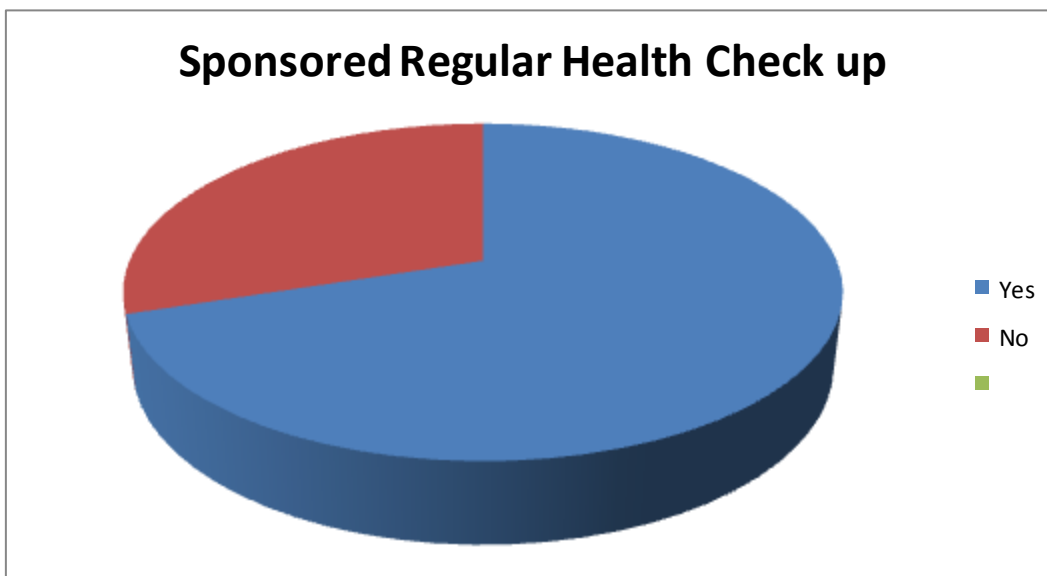
**Interpretation:-** It is observed from the above table that about 30(20%) of the workers agree that there is regular respiratory problems, about 30 (20%)of the workers stated that there is regular problem of bronchitis, about 25 (16.67%) of the respondents stated that there is regular ailment of tuberculosis, about 55(36.67%) of the workers agree that there is problem of cancer, about 5 (3.33%) of the workers stated that there are ailments of HIV/AIDS among the workers and the remaining 5 (3.33%) of the workers stated that there are other kinds of the medical problems in

the industry. It is surprising to note that HIV/AIDS is not a problem of the working environment in industry, but about 5 (3.33%) of the respondents considers it as a medical problem in industry.

**iv) Industry-Sponsored Regular Health Check-up**

Particulars	No. of Respondents	Percentage
Yes	105	70
No	45	30
<b>Total</b>	<b>150</b>	<b>100</b>

**Table.1.4**



**Fig.1.4**

**Interpretation:** - It is noted that about 105 (70%) of the workers expressed that the company organizes the regular health check-up campaigns to its workers and the remaining 45 (30%) of the workers disagreed to the statement and expressed the company does not organize the regular health check-up camps to its workers.

v)Organization of the Regular Awareness Programmes on Health and Safety

Particulars	No. of Respondents	Percentage
Yes	95	63.33
No	55	36.67
<b>Total</b>	<b>150</b>	<b>100</b>

Table.1.5

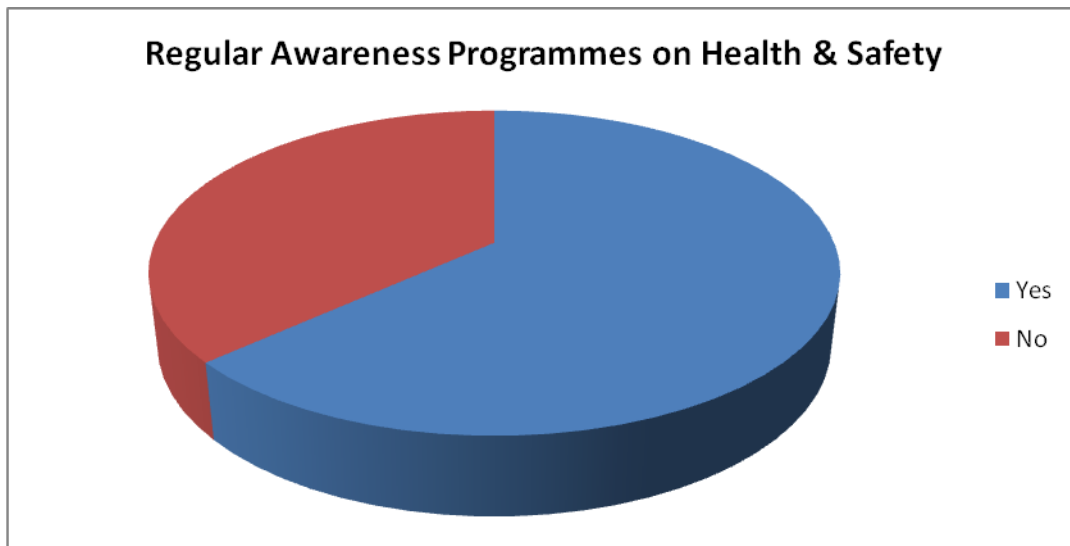


Fig.1.5

**Interpretation:-**The above table indicated that about 95 (63.33%) of the workers covered under the study expressed that the company conducts regular awareness programmes on Health and Safety and the remaining 55 (36.67%) of the respondents expressed that the company does not provide any kind of Health and Safety awareness programmes to its workers.



vi)Health Facilities in the Industry

Particulars	No. of Respondents	Percentage
General Health Facilities	30	20
Health Center	40	26.67
Hygienic Conditions	35	23.33
All of the above	45	30
<b>Total</b>	<b>150</b>	<b>100</b>

Table.1.6

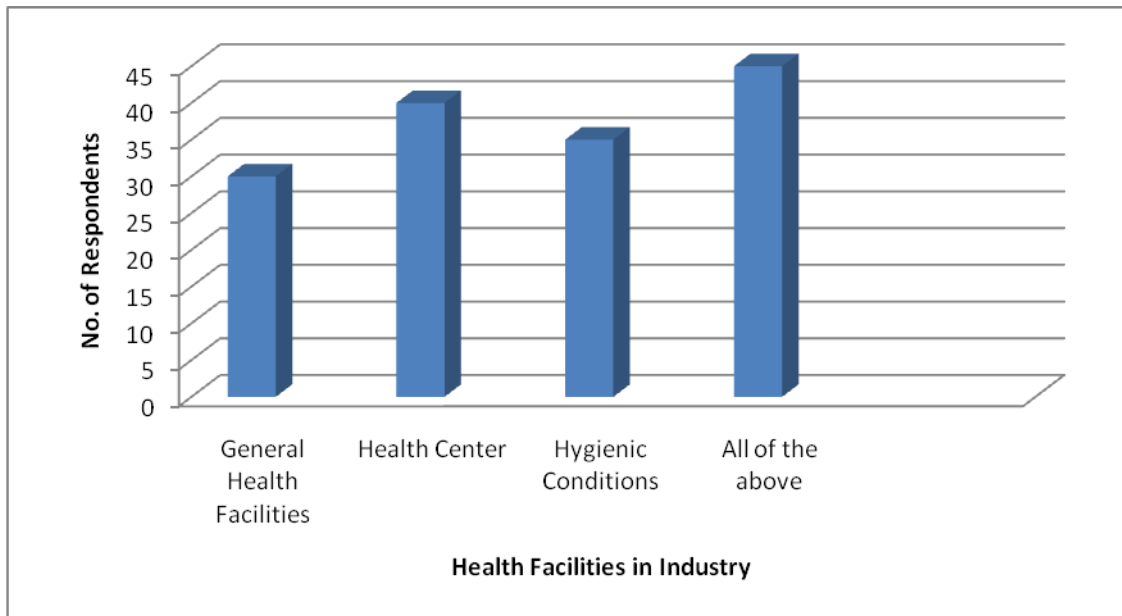


Fig.1.6

**Interpretation:** -It is worth to emphasize that all of the above facilities are available in industry as stated by a majority of the workers that is 45 (30%), followed by about 40 (26.67%) of the workers stated that the industry have its own Health Centre and the remaining 35 (23.33%) of the respondents stated that the company maintained hygienic conditions in the workplace.

vii) Company's Attitude on Health of the Workers

Particulars	No. of Respondents	Percentage
Very Serious	35	23.33
Serious	60	40
Not Serious	45	30
Can't Say	10	6.67
<b>Total</b>	<b>150</b>	<b>100</b>

Table.1.7

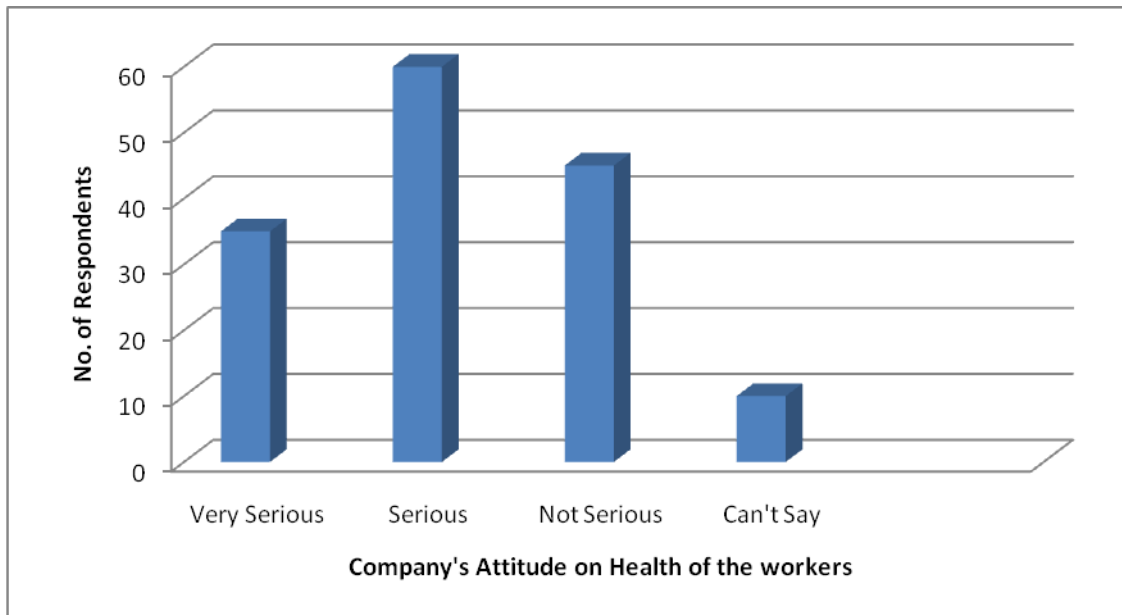


Fig.1.7

**Interpretation:** -Above fig. shows that, majority 60 (40%) workers said that, organization is serious about the health of the workers and 45 (30%) workers said that, organization is not serious about health of the workers.

## FINDINGS AND OBSERVATIONS

i) It is noted from the above table that about 90 (60%) of the workers covered under the study stated that the Sudarshan Chemical Ltd is providing Health and Medical Allowances to the workers and the remaining 60 (40%) of the workers stated that the company does not give the Health and Medical Allowance

ii) It is observed from the above table that about 30 (20%) of the workers agree that there is regular respiratory problems, about 30 (20%) of the workers stated that there is regular problem of bronchitis, about 25 (16.67%) of the respondents stated that there is regular ailment of tuberculosis, about 55 (36.67%) of the workers agree that there is problem of cancer, about 5 (3.33%) of the workers stated that there are ailments of HIV/AIDS among the workers and the remaining 5 (3.33%) of the workers stated that there are other kinds of the medical problems in the industry. It is surprising to note that HIV/AIDS is not a problem of the working environment in industry, but about 5 (3.33%) of the respondents consider it as a medical problem in industry.

iii) It is noted that about 105 (70%) of the workers expressed that the company organizes the regular health check-up campaigns to its workers and the remaining 45 (30%) of the workers disagreed to the statement and expressed that the company does not organize the regular health check-up camps to its workers.

iv) It is observed that about 95 (63.33%) of the workers covered under the study expressed that the company conducts regular awareness programmes on Health and Safety and the remaining 55 (36.67%) of the respondents expressed that the company does not provide any kind of Health and Safety awareness programmes to its workers.

v) It is observed that all of the above facilities are available in industry as stated by a majority of the workers that is 45 (30%), followed by about 40 (26.67%) of the workers stated that the industry has its own Health Centre and the remaining 35 (23.33%) of the respondents stated that the company maintained hygienic conditions in the workplace.

## CONCLUSION

It is surprising to note that majority of the respondents covered under the study are illiterates or under-educated. Regarding the health ailments, it is discovered that there is respiratory problems to a greater extent. Hence, it is needed to arrange for modern ventilation facilities, so as to provide fresh air to the workers in the work environment. Sudarshan Chemical Ltd is to be appreciated in organizing industry sponsored regular health camps and regular awareness campaigns on health and safety to increase awareness about the health and safety and test the health problems of the workers. The company is also realized the significance of health and safety of the workers and as such it is providing health facilities at the workplace. But it is noted that as expressed by few respondents, there is unclean environment and hence, there is need to develop clean environment in the work place. To a greater extent, company is also providing safety equipments to the workers. There is less dangerous work environment in the company and company also enabled fencing, safety nets, availability of safety personnel at work place, etc for the safety of the workers. Company is also providing insurance services to the workers against the physical injury or death. The workplace is also with benefits and facilities as per the provisions of Factories Act 1948 for the health and safety of the workers. To sum up, Sudarshan Chemical Ltd is one of the best companies in enabling occupational health and safety of the workers.

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