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An Assessment of Occupational Health and Safety Measures and Performance of Service Industry Gujrat, Pakistan

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***Abstract*—this research includes study on fire safety and risk analysis (ISO 31000) in Service Industry Limited for Gujrat. Characterization of risk, risk evaluation, making plans to maintain it, and improvement of risk using professional resources were the associated objectives of the presented in research. The research describes the main steps involved in fire safety and risk management procedures, occupational safety and health (OSHA) and risk analysis with major focus on prediction, identification, estimating and control of hazards rising in or from the workplace that might harms the health and well-being of workers.**

Keywords—Occupational, Health, Safety

I. INTRODUCTION

Occupational health and safety is an area related to caring the safety, health and wellbeing of people occupied in Occupational health and safety (OHS) work. The purpose of Occupational Health and Safety plans comprise of promote a safe and healthy occupation setting.

Occupational Safety and Health Administration (OSHA) is an American firm of the labor established by the Congress agency under the Occupational Safety and Health Act, by President R. Nixon on December 29, 1970. OSHA's work is to "declare safe and healthful working environment for working men and women by locating enforcing regulations by giving training, education and support. OSHA with authorization created on April 28, 1971, on this date the OSHA Act became effectual. George Guenther was first director of agency. OSHA has made number of instruction, fulfillment assistance health and safety acknowledgment programs during its history. OSHA training organization, which trains government and local sector health and safety people, began in 1972. In 1978, the OSHA began a funding program, at the present called the Susan Harwood Training, this Program, is to train labor, workers and employers in minimize workplace hazards. OSHA started the charitable safeguard Programs in 1982 [1]. OSHA agency is also stimulating with enforce a variety of informer statutes and rules. The Occupational Safety and Health Act allow OSHA to concern workplace health and safety policy. These regulations include minimising the chemical exposure, employee contact to information needs for the use of personal protective apparatus, and requirements for safety measures [2].

According to WHO 2104 report OH&S is defined as a multi corrective action aim at: Safety ,endorsement of health of employees by eradicating Occupational issues and circumstances dangerous for health and protection during work, improvement of Psychological and community comfort of employees that hold for the progress and protection of their effective ability, over and above specialized and public expansion at labor and also increase and encouragement of sustainable work surroundings and work associations. Out of 2.70 billion workers as an estimate about 2.0 million deaths are due to Occupational diseases and injuries and approximately. 4% of total GDP is misplaced because of occupational infections and injuries [3].

Occupational Safety and Health Legislation in Pakistan This Act is called factories Act, 1934 of Pakistan. It shall come into power on the 1st day of January 1935.These things are relating to the health and safety of works and discussed in chapter 3 of act, safety measures against unsafe smoke, volatile or inflammable material, gas, etc. An Act to give outcome in Pakistan to the reunion concerning the defense against accidents of workers in a job of loading and unloading of ships. It is applicable in Pakistan and enforce by Government may, by notice in the Gazette .It shall not applicable to any ship of war of any nationality. In pursuance of the Proclamation of Emergency of the fourteenth day of October 1999, and the Provisional Constitution Order No. I of 1999, read with the Provisional Constitution (Amendment) Order No. 9 of 1999, and in exercise of all powers enabling him in that behalf, the President of the Islamic Republic of Pakistan. This ordinance is formed to avoid Accident means boiler explosion. And Ad hoc Technical Committee is formed to check the boiler certifications standards etc [4].

II. PRINCIPLES OF OCCUPATIONAL HEALTH AND SAFETY

A number of explanations of occupational health and safety as well as occupational health have been shaped by qualified bodies, international organizations like WHO and nationwide establishment. But one reviews those explanations, occupational health is measured to be multidisciplinary action intending at:

- Safety and support of the physical condition of workers by avoid and devious work-related illness and accident

and by eliminating work- related basis and situation dangerous to physical condition and wellbeing at work.

- Development and support of well and secure employment, job surroundings and labor relations.
- Development of physically, mental and community relieve of workers and maintain for the development and protection of their working skill, in adding up to particular and society improvement at job.
- Enablement of workers to manner communally and economically creative lives and to add absolutely to sustainable growth.

Therefore occupational health has increasingly developed from a mono corrective risk oriented action to a multidisciplinary and complete approach that believes individual's physical, psychological and social comfort, common health and own development.

The majority victorious co no my has established that workplaces designed according to high-quality values of professional fitness, security are also the mainly sustainable and original. In adding, wide information from nations give details that a strong economy, high worth of goods or services and long-standing output are firm to reach in unfortunate work situation with employees who are presentation to physical condition and safety hazards. The accessible logical information and matter-of-fact practice of enterprises and countries which have reached the top consequences in the progress of occupational health point out the worth of a number of principles. These principles are ordinary denominators in occupational settings that have exposed the finest effects in health, safety, social affairs and economic achievement. [3]

III. Objective of Study

- To highlights possible risks and threats are faced by employees in a job
- To study the occupational health and safety measure of the factory
- To find the solution of risk and hazard loss

IV. Methodology

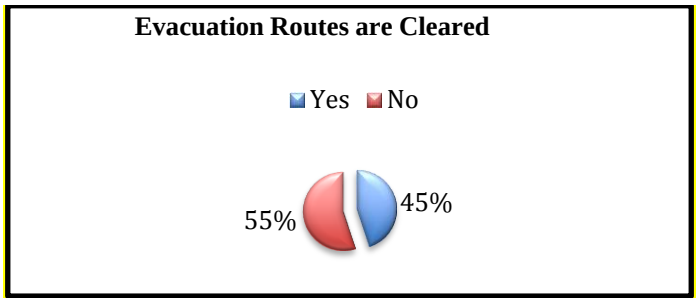
This study is based on risk estimations and evaluation on work place including fire section of the Service Industry Limited SIL industry in different departments' .e g. Risk in fire section during evacuation drill and in raw materials stores. In this study, sampling method is using structured checklist, interviews and walk through surveys based on checklist having twenty questions. The workers of this study in SIL were interviewed individual and data obtained were analyzed statistically to generate and for further discussion require statistical analysis of the data from the survey. The statistical Package for the common Sciences (SPSS) edition 16.0 was used to study the data and provide descriptive analysis about sample taken place.

This study got sample size through random sampling size of sample is 100 workers from the industry and there interviews are conducted for further results and discussions. The interview is certainly the most frequent source of data in qualitative study. The person-to-person layout is most established, but group interviews and center groups are conducted

One more type of qualitative research method workers interviews on a definite topic with a small set of people, called a focus group. This practice can be efficient because the member can gather information about numerous people in one assembly. Observation in qualitative study generally involves spending a long-lasting amount of time in the setting.

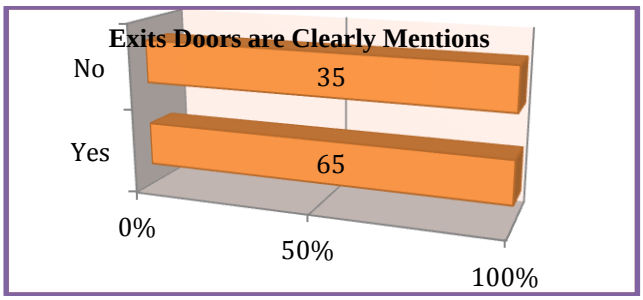
V. Results and Discussion

1. Fig Evacuation Routes are Cleared



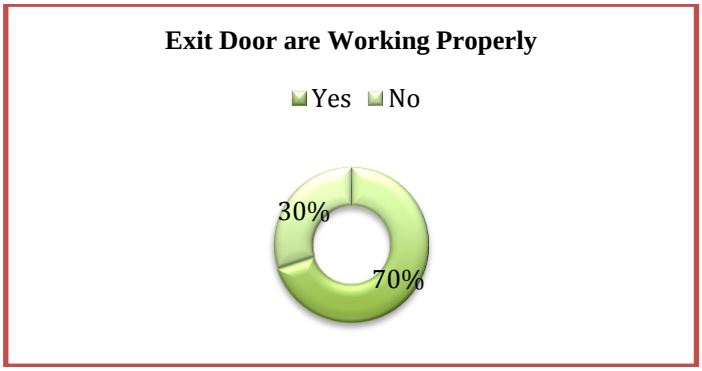
The graph show that 45 % worker are agree with evacuation routes and 55 % are not agree with this routes that they are clear during drill.

2. Fig Exits Doors are Clearly Mentions



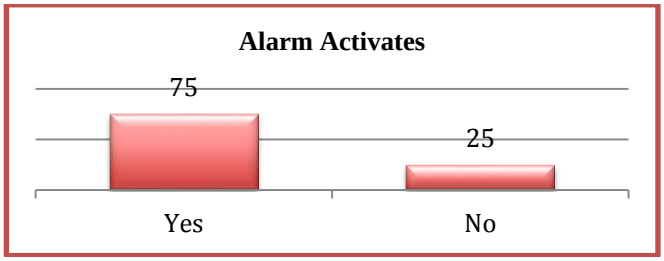
The graph shows that 65% are agree with the question that exit door are clearly mentions and working properly 35% are disagree.

3. Fig Exit Door are Working Properly



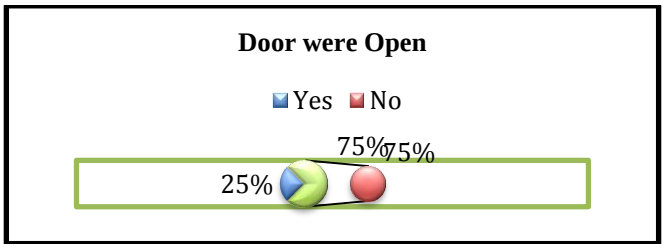
This graph shows that 70% worker agree that exit doors are working properly and 30% worker are disagree that exit doors are not working properly and some doors are blocked with industrial material and solid waste.

4. FIG ALARM ACTIVATES



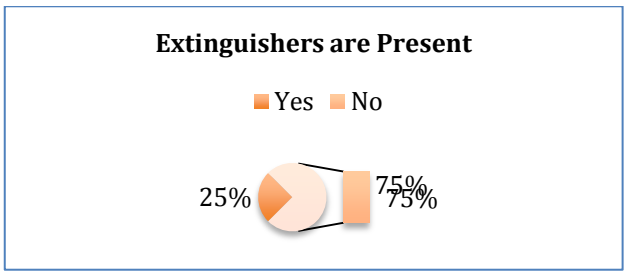
This graph shows that 75% workers hear alarm clearly and they do not have any problem in hearing. But 25% have problem in hearing due to noise and other health problems

5. FIG DOOR WERE OPEN



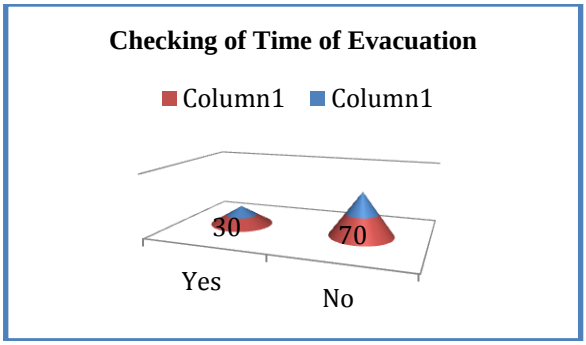
This graph shows that 75% agree that door were opened and 25% shows that doors were closed due to raw material and solid waste.

6. FIG EXTINGUISHERS ARE PRESENT



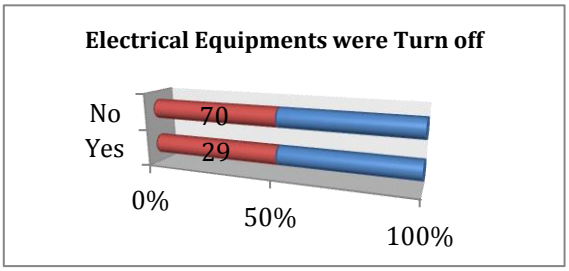
This graph shows that 75% workers agree that fire extinguishers are present and 25% workers disagree that extinguisher are not present in every department.

7. FIG CHECKING OF TIME OF EVACUATION



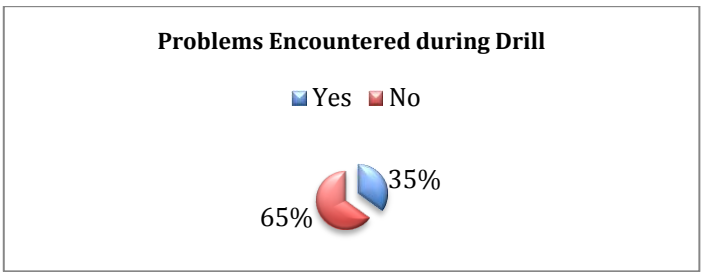
This graph shows that 30% workers agreed that evacuation drill is done on time according to the planning of management and 70% workers disagree that drill is not done on time and it have many hazard.

8. FIG ELECTRICAL EQUIPMENT WERE TURN OFF



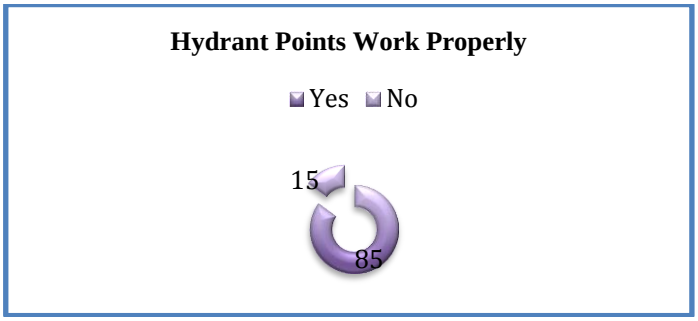
This graph shows that 29% workers are able to switch off the electric equipment while 71% workers fail to switch off the electric equipment.

9. FIG PROBLEMS ENCOUNTERED DURING DRILL



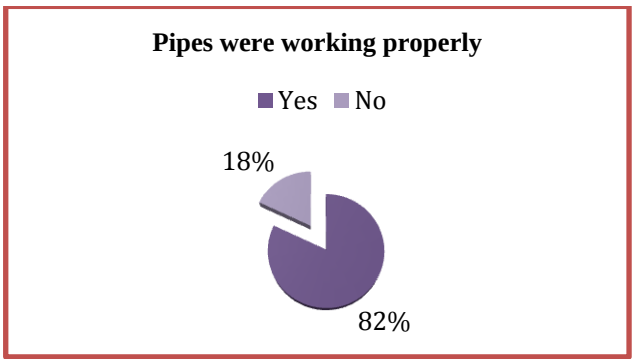
This graph shows that 35% do not feel any problem during drill but 65% workers have problems while doing drill.

10. FIG HYDRANT POINTS WORK PROPERLY



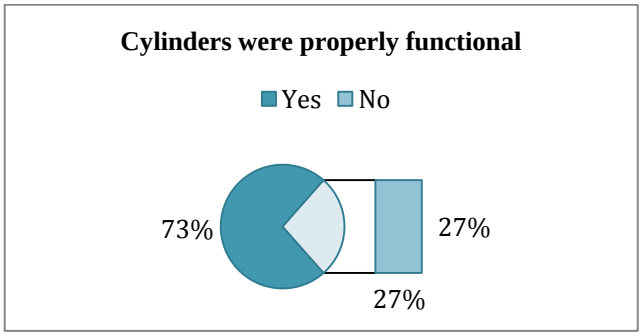
This graph shows that 85% workers are agree that hydrant points were working properly and 15% worker disagree that hydrant points were not working properly due to maintenance.

11. FIG PIPES WERE WORKING PROPERLY



This table shows that 82% worker agree that pipes were properly working and in good condition and 18% worker are not agree that pipes were working properly.

12. FIG CYLINDERS WERE PROPERLY FUNCTIONAL



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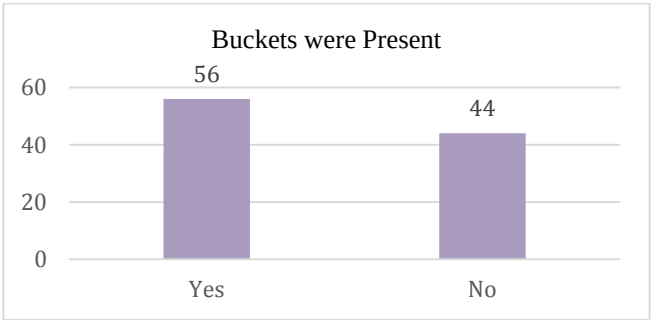
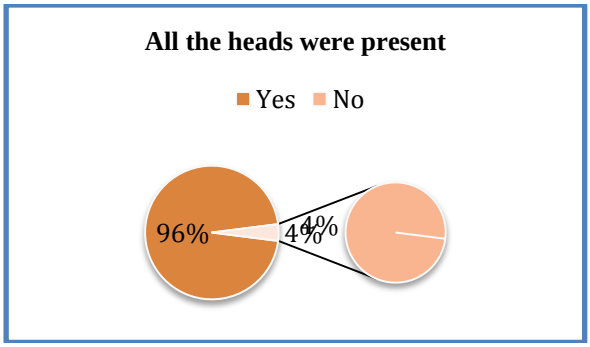
This graph shows that 73% worker were agree that fire extinguishers cylinders were working properly and 27% worker asked that cylinders were expired, they are not check properly and not send for refilling

13. FIG BUCKETS WERE PRESENT



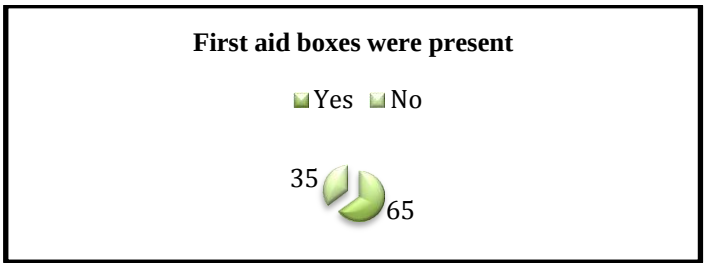
This graph shows that 56% worker agree that buckets for fire safety were present and 44% disagree that buckets were not sufficient and sand become wet due to rain water they should not be refilled on time.

14. FIG ALL THE HEADS WERE PRESENT



This graph shows that 96% workers agree that all the top management and coordinates are present on the drill day but 4% disagrees about the presence of heads.

15. FIG FIRST AID BOXES WERE PRESENT



This graph shows that 65% workers agree that first Aid boxes were present and 35% disagrees that there are no proper boxes in every department.

VI. Discussion

This study shows that Service trade mark have several problems associated with the activity health and safety. These problems associated with the employee health and work connected hazards and then ultimately become risk on exposure. As for the fire safety issue are concerned it is revealed that organization is on extreme risk and require major improvements in their whole fire safety system there is no doctor, drugs and automobile within the organization for emergency things. After comprehensive observations and analysis it was depicted that there is no proper arrangement of job related trainings of the employees within the industry so there is need to take initiative so workers can perform their duties as per job safety regulations. Study shows that during the drill 65% workers face different problems related to the exit plan they do not turn off electrical equipment, machinery and emergency exits was not cleared. Furthermore worker are not only facing issues related to noise pollution, shortage of drugs in care boxes within the safety

workplace the condition is worse and poor and it lacks cleanliness, sand buckets have to be refilled, but industry is also lacking the emergency exits. During the storage, handling and transportation of toxic chemicals workers did not use PPEs. In these stores there completely different chemicals that have several physical aspects on employees. There's want of PPEs e.g. masks, earmuffs, gloves safety shoes and safety belts etic .During the study period of road construction cause severe problems to transportation of raw material, workers and operational problem of the industry raw material and machinery of road was placed in parking of the industry. In SIL there's want of robust policy development and its implementation to avoid completely different accidents, risks and health connected issues once implementation there's periodic checking and review of all the procedures and observation of plans in time for the continual improvement of the organization. By doing this there's development within the culture of the organization also because it have positive impact on encompassing atmosphere and different organizations.

VII. Conclusion

Risk is compulsory and present in every environment. It occurs in daily lives work places open and classify division organization. The usual concept in all definitions is ambiguity of outcome. Where they vary is in how they distinguish outcome. Some illustrate risk as having only unpleasant cost, while others are neutral. Fire safety on work place is also major issue during the industrial activities and in production units from the storage of raw material to the supply of final product. Industries installs' many equipments and procedures to mitigate this hazard. There are different types of fire extinguishers used for fire originates from different raw material. Evacuation drill and training of workers is also important to get rid from different type of risks in the organization. These drills are conducted to check the working and maintenance of the safety equipments and to create awareness and among workers to avoid and response in different emergency sititutions. After implementation of OSHA system, we will monitor all the processing units (monthly or daily) depending upon risk category if there is any flaw regarding the use of PPEs then we will provide essential items i.e. PPE's to workers at the spot to avoid any critical situation. After implementation OSHA to ensure the working of fire evacuation system, we will arrange/do practical regarding (fire alarm, emergency exists, use of fire extinguisher etc.) to check the response of trained workers. To avoid any critical situation in case of emergency prepairedness and response like flood, earth quake or lab related emergency like fire (smoke detector) skin burning (first aid box) sucking of any toxic fluid.

Recommendations

with raw material and waste

Need proper fencing of petrol pump

There is a proper need of sewerage system and maintained of water pipes in industry

Solid wastes are in front of cutting division they needs to dispose of.

Short courses of safety worker should be conducted

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