Management of industrial safety in Yemen

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1. INTRODUCTION : The significance of safety and security in industries, has been a vital issue in achieving productivity not only in productivity but necessary for establish or beginning any manufactory. In the present global industrial story, for an industry to be successful, it is substantial or major to develop and enhance safety culture. consciousness in health and environment aspects in each personnel of an organization.

The Yemen Polling Center (YPC) an independent think-tank in Sana'a issued a report, on January 30, 2013, on the public perception of the Yemeni security sector. In a country-wide survey, a questionnaire was distributed to 1,990 respondents, with an even number of male and female respondents. The report allows for an interpretation that is somewhat surprising. In a nutshell, Yemenis perceive the state's security establishment as notoriously ineffective, if not virtually absent. With ongoing civil wars in the North and South of the Country, significant al-Qaida activism in the Southern governorates, frequent assassinations of security personnel and politicians, and the irregular kidnapping of foreigners, there is objectively no security at all in a country routinely described as a failed state by Western observers. Yet, the majority of Yemenis, whether in urban or in rural areas, do not necessarily feel insecure in an environment where public security arrangements are absent or dysfunctional.

Ensuring the safety of employees within the work place and industrial environment is among the core competence within facilities safety management. The facility safety manager will not be satisfied until the workplace is safe from hazards, the employer, employees are injury-free, the services are safe, and the commitment, comply and record of protecting the environment are unmatched.

The following is required of every safety manager:

- •Compliance with legal requirements and the industry policies, standards.
- •Establishment of safety and environment safety goals and achieve these goals.
- •Implementation and evaluation of safety and security policies to reduce hazards and continually develop the efficiency of the safety process.
- •Establishment legalizations which organize all actions under safety control.

2. PROFILE OF THE YEMEN

The geographical area of the Yemen country is 527,968 km2 having population of 27584 213. Of which men's population is 28 million by 2016 estimates, with 46 per cent of the population being under 15 years old and 2.7 per cent above 65 years. Yemen was divided into twenty governorates plus one municipality called "Amanat Al-Asemah" (the latter containing the constitutional capital, Sana'a) at the end of 2004. Then an additional governorate i.e Soqatra Governorate was created in December 2013 comprising Socotra Island, previously part of Hadramaut Governorate. The governorates are subdivided into 333 muderiah i.e. districts, which are subdivided into 2,210 sub-districts, and then into 38,284 villages (as of 2001). In 2014, a constitutional panel decided to divide the country into six regions; Four in the north, and Two in the south. The capital Sana'a outside of any region creating a federalist model of governance

Table No: (1).

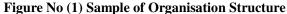
Yemen's 22 governorates

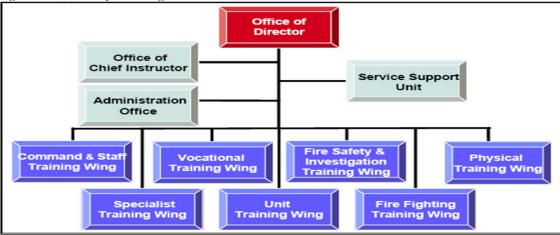
Temen's 22 governorates							
Taiz	Al-	Ibb	Amanat	Socotra	Ma'rib	Abyan	Aden
	Hudaydah		Al Asimah				
Al Bayda	Shabwah	Hajjah	(Sana'a City.	Sana'a	Dhamar	Al	
			Municipality			Mahwit	
Lahij	Raymah	Saada	Hadhramaut	Amran	Al <mark>Mahrah</mark>	Al Jawf	Al
							Dhale

3. INDUSTRIAL SECTOR IN YEMEN

Yemen's industrial sector is centered on crude oil production and petroleum refining, food processing, handicrafts, small-scale production of cotton textiles and leather goods, Aluminum products, commercial ship repair, cement, and natural gas production. As of 2013, Yemen had an industrial production growth rate of 4.8 per cent. It also has large proven reserves of natural gas. The labor force was 7 million workers in 2013. Services, industry, construction and commerce together constitute less than 25 per cent of the labor force. The unemployment rate as of 2003 was 35 per cent. As of 2013,

exports from Yemen totaled \$6.694 billion. The main export commodities are crude oil, coffee, dried and salted fish, liquefied natural gas. These products were mainly sent to China 41 per cent, Thailand 19.2 cent, India 11.4 per cent, and South Korea 4.4 per cent. Imports as of 2013 total \$10.97 billion. The main imported commodities are machinery and equipment, foodstuffs, livestock, and chemicals. These products were mainly imported from the EU 48.8 per cent, UAE 9.8 cent, Switzerland 8.8 cent, China 7.4 cent, and India 5.8 cent. of US\$61.63 billion, with an income per capita of \$2,500. had a GDP Yemen as of 2013by the of GDP), followed per cent Services are the largest economic sector (61-4 per cent of GDP). Followed by the industrial sector (30,9 per cent) agriculture (7.7 per cent) and petroleum declining from (16) to (10) per cent of the country's GDP.





4. NEED OF SAFETY AND SECURITY IN GENERAL

There is need of security and occupational safety such as

- 1. To protect laborers in production areas specially at industrial sector workshops, manufactories.
- 2. To inspire awareness about importance safety, security and occupation health.
- 3. To create legalization that's granting of industrial security inspectors inspection authority and accident investigation to inspection of machinery and equipment.
- 4. To develop the industrial security legislation that include labor risks in ships, gas storage tanks and work in packing ,also to identify carrying legal weights .
- 5. To increase cooperation between the departments and international Organizations.
- 6. To guarantee .high levels of quality, quantity and safe human life.
- 7. To create and develop future security plans.
- 8. To reporting Injuries and protection engineering, chemical and natural hazards.
- 9. To protect laborers by legislation at construction work installation engineering, transport and deportation.
- 10. To create laws which considered the psychological trauma resulting from work-related injuries a professional disease.
- 11. To criminalize of smuggling of pesticide which. Consider the big killer.

5. NEED OF SAFETY AND SECURITY IN YEMEN

Yemenis are fully aware of the state's lack of capacity. The police are not active in the Yemen. Yemeni security and military forces are actively involved in criminal activities, in particular smuggling, and in September 2014 Most of security camps and the army have turned into armed Militias and have participated in crimes that kill civilians and loot state institution. Yemen is currently in the midst of a political transition and almost a civil war. As a result, the situation is volatile and demonstrations, rallies and violence are common. Injuries and deaths have been reported at some protests, and tension can escalate quickly. Travelers in the country are strongly encouraged to depart as soon as possible. Threats to traveler security include long-term detention, kidnapping for ransom, and attacks by terrorist organizations such as Al-Qa'ida in the Arabian Peninsula (AQIP) and the coup forces and militias of the Houthi criminal movement controlled the capital and some northern cities.

Additionally, authorities warn against travel by sea and air through the Red Sea, Bab-el-Mandeb Strait and the Gulf of Aden as well as Yemeni air space. Safety and Security, like Training and Daviderment are after left on the healt human until a crimic account. By they need full victim to

crime, get robbed, get assaulted, become sick or even die. Although we mention "safety and security" in one breath, and despite the interrelationship between them, Safety and Security represent two different subjects. In today's business environment, employees appear to be less committed to their respective organizations. Since an employer cannot guarantee the stability or longevity of their employees' corporate career paths, or the security of their jobs, the old contract of employee loyalty in exchange for job security and fair work has broken down.

There is need to study the safety industrial management in Yemen and the impact of security and safety hazards on human resources in their workplace and production area in industrial sector.

5.1 SANCTIONS AND ADMINISTRATIVE MEASURES

The sanctions under the Yemeni labour law, in case of violations, range from 500 to 20,000 YRs (about 20 to 100 US\$) or prison for a period not exceeding three months .in case of OSH violations, the inspections may request a ministerial decision for temporary suspension of any machine, thought to be a source of hazards, for not more than a week. If violations are not removed during this period the matter may be referred by minister to A "Specialized Arbitration committee" for longer, of permanent, suspension.

6. THE SAFETY HAZARDS IN THE MANUFACTURING INDUSTRY

Manufacturing facilities are riddled with risks, both hidden or out in the open. if the Employees does not know where to begin looking, such hazards can result in serious injury or death.

There are a few of the most safety concerns in any industries as bellow:

1. Poor maintenance. **2.** Permanent hazards. **3.** Chemicals.

4. Undertrained employees. **5.** Insufficient first aid. **6.** Falls. **7.** Carelessness

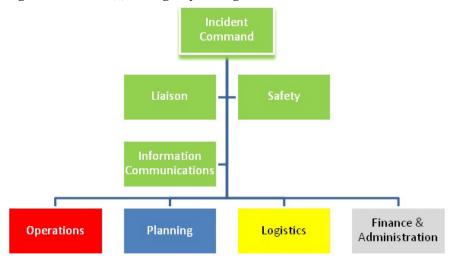
8. Unrestricted access. **9.** Fire. **10.** Heavy machinery

6.1 AREASOF CONCERN.

Hazards of pressure Vessels *Hazardous Chemical Reactions * Hazardous of unit operation * Flammable Gases * Vapours And Dust Hazard.* Health Hazards.-* Hazards due to corrosion * Entre into confined spaces.

Working with pipelines* Plant Alteration and modification* Sampling and Gauging.* Hazards due to instrument Failures.* High temperature and pressure.* Toxic and corrosive chemicals.* Electricity.* Disposal of wastes.* Road accidents.* Unsafe device.* Hazards during heavy equipment.* Failure of boilers etc.*





7. PERSONAL PROTECTION EQUIPMENT (PPE).

As pedestrian or cyclist one must guarantee high visibility by wearing a frock and clothing (e.g. with reflecting and fluorescent strips on the fire retardant clothing). Working clothes must be made of inherent fire retardant fibers (IFR). The supper part of the clothing must contain reflecting and

fluorescent parts. This can be a high visibility frock, according to EN471 standard. In case of welding /grinding work specific fire retardant overalls need to be provided.

In most industries in Yemen it is obliged to wear the following protection as a minimum:

- -Safety helmet.
- -Safety glasses with side-protection.
- -High, antistatic safety shoes.
- -Inherent fire retardant clothing / high visibility frock and Gloves.

PPR requirements will have been identified as part of the risk assessment prepared by the contractor undertaking the work activity. In the some mechanical (grinding, polishing, welding, burning) a face shield has to be combined with safety glasses. So personal protection gear it is most important for safety and security at workplace and production areas.

8. INDUSTRIAL SAFETY POLICIES

The industrial safety policy simply stated is No accidents, No harm to people and No damage to the environment. Yemeni industries as a part of the implementation of this policy e.g. Hayel Saeed Anam Group (HAS group) they have established a Zero Tolerance policy which aims to raise the understanding of all personnel who work on the companies to insure they operate and behave in a way that seeks to achieve zero accidents, injuries and environmental harm, the philosophy of zero tolerance policy. To achieve this policy they plan to support and implement this policy. The scope and depth depends on the degree of risk of the work . the responsible person prepare the detailed job plans, scheduling the expected risks andreporting to the department to make decision which guarantees safe workplace according to international standards.

Ten Workplace Safety Recommendations

- 1. Involve your employees in safety planning.
- 2. Provide clear work instructions.
- 3. Focus your safety efforts on the most likely issues.
- 4. Create a safe work area and Emergency management.
- 5. Maintain a clean work area.
- 6. Encourage your employees to have a voice in safety.
- 7. Focus on how each employee performs his/her job.
- 8. Maintain all machinery in good working order.
- 9. Avoid and remove unnecessary hazards.
- 10. Revisit your safety guidelines every year. .

9. CONCLUSION

This paper aimed to give a simplified picture to the reader on the industrial safety management in Yemen. In addition, it aimed to provide the reader with a deep understanding of the impact of safety and security on the human resources and the industrial sector in Yemen. Moreover, it presented a brief summary on the situation of environment and the security in Yemen in general. Finally, it also tried to present a clear picture on the importance of the employees in their workplace and production areas.

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