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# SAFETY AS A FACILITATOR OF PRODUCTIVITY



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# AGENDA

- Address the miss-understanding of the importance and significance of Safety and Health as the driver of an efficient and effective workplace
- Implementation of an effective safety and health program is of paramount importance to the success and profitability of any organization.
- To remove the myth that safety and health as an expense to the organization.

# COST OF AN ACCIDENT

- The occurrence of accidents in the workplace has the following effect on the business:
  - Immediate loss of production of the injured person,
  - Loss of production of the persons in the immediate vicinity of the incident
  - Loss of production as a result of hesitancy of persons to perform the task leading to slower output
  - Loss of product or materials
  - Lost time as a result of the investigation process
  - Compensation costs
  
- Possible fines for breaches of the legislation

# SAFETY AND PRODUCTIVITY

- Safety and Health therefore can no longer be seen as two separate entities when it comes to the world of work.
- The technological advancement of the workplace and the constant demand for greater and greater levels of production has brought health concerns into focus thus making Safety and Health inseparable.
- Safety was and is still in some cases seen in relation to physical injuries, “Hard Hat, Safety Shoes, Safety Glasses and other forms of Personal Protective Equipment” related to the manufacturing process.

# SAFETY AND PRODUCTIVITY

- A study conducted by the Barbados Productivity Council in 2000 showed that **7% of the Barbados Workforce is injured on the job, with each case averaging 20 days sick leave.**
- **The average lost time from injuries increased by 81% between 1993 and 2000, causing Barbados to lose 4.3% of its output due to injuries on the job alone.** The study went on to show that for the same period, **benefit payments increased by 148% increasing from \$4.5 Million to \$10.1 Million reaching a record level of \$11.2 Million in 1999**
- **with the number of claims increasing from 639 to 4016.** The evidence also suggested that the severity of the injuries had been increasing from 16 to 29 days per case In 2000.
- Mr. Earle in his presentation said that statistics **between July and September 2007, showed 4492 employees were absent , loosing 10,480 working days Costing \$ 945,210.89**

# SAFETY AND PRODUCTIVITY

- The conclusion drawn from the study was that **“The high levels of injuries translate into high production costs and low productivity due to loss of time from the job, poor health and wellness of the worker and low morale.**
- **Injury prevention should therefore become a part of the strategic planning process designed to reduce incidents of injury and illness”.**
- What is interesting about this study is that it showed that 27% of the injuries occurred in the service sector, which is normally considered by persons as non-hazardous when compared to manufacturing, while in 2000 only 10% of injuries were attributed to tools and machinery

# SAFETY AND PRODUCTIVITY

- The study which attributed low productivity “**to loss time from the job due to poor health and wellness of the worker as well as low morale**”. Examining this statement more closely, poor health and wellness of the worker can be traced to the upsurge in the incidents of non-communicable diseases (NCDs), also known as chronic diseases, which are not passed from person to person. They are of long duration and generally slow progression **(Chief Medical Officer Barbados)**
- NCDs can be put in four 4 groups: *Cardiovascular diseases (like heart attacks and stroke); Cancers; Chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and Diabetes*(Chief Medical Officer Barbados), as well as cholesterol related issues, stress, depression and anxiety which are all attributed to psychosocial factors associated with the work environment.



# SAFETY AND PRODUCTIVITY

- The study further stated that “**What is required from a safety representative is a combination of common sense and a logical, systematic approach to identify each safety and health problem**”. Implicit in this statement is that every employer should evaluate each process to identify the hazards and risks associated with it.
- In order to minimize injuries, illnesses and absenteeism managers/ employers/designers of the manufacturing process need to have a structured approach to the implementation of their systems, using the Plan-Do-Check- Act principle.
  - **PLAN (Designing)**– understanding job requirements, skill and personnel needs
  - **DO (Implementation)** - selection of personnel & equipment
  - **CHECK (Evaluation)** - monitoring & audit systems
  - **ACT (Maintenance)** – health surveillance, retraining and job modification, equipment and tool upgrades

# WORKPLACE FACTORS

- When your production target is reached how many rejected items are incorporated in the process?
- What were the factors leading to the rejects?
- Was the production time factor taken into consideration?
- To what extent are the workers at their optimum production level?
- What is contributing to these situations?
- Were the appropriate skill sets selected to fit the task?
- Were these factors considered in the design and execution of the project?
- Were their accident occurring in the operation?

# WORKPLACE FACTORS

- **Some examples of workplace psychosocial factors include:**
  - **Job demands** - Examples include time pressure, work pace, rest breaks, workload, or surges of work.
  - **Job control** - Examples include perceived lack of participation in decisions, level of influence on work and work outcomes.
  - **Job satisfaction** - Examples include task variety and variability vs. monotony, opportunities for development, or challenges vs. poor skill utilization.
  - **Support** - Social support and emotional support from co-workers and family. (Canadian Centre for occupational health and safety)
  - **Psychosocial hazards** are defined by the International Labour Organization (ILO, 1986) in terms of the interactions among job content, work organisation and management, and other environmental and organisational conditions, on the one hand, and the employees' competencies and needs on the other
- Psychosocial risks go hand in hand with the experience of work-related stress.

# WORKPLACE FACTORS

- Longitudinal studies and systematic reviews have indicated that stress at work is associated with heart disease, depression, and musculoskeletal disorders and there is consistent evidence that high job demands, low control, and effort-reward imbalance are risk factors for mental and physical health problems, thereby leading to further strain on public spending for increased costs on healthcare. (WHO)
- **The importance of Psychosocial factors to Business Continuity:**
  - The logistics associated with Process Safety.
  - **The importance of recruitment** - performance hiring, quality hiring.
  - Workplace supervision, job, design & organizational culture as a process safety factor.
  - **Employee engagement** – The employee not feeling part of the process or their ideas not taken into consideration.
  - **Emotional intelligence** - the ability to understand and manage your emotions and those of others.

# WORKPLACE FACTORS

## **ACCIDENT/INCIDENT CONTROLS:**

- ✓ Planning and leadership
- ✓ Training and communication
- ✓ Job/operations analysis & controls
- ✓ Change management
- ✓ Purchasing procedures/systems
- ✓ Work rules-operation permits
- ✓ Inspections
- ✓ Incident investigation & analysis
- ✓ Emergency preparedness

# INSPECTIONS

- Site Inspection Techniques
  - Inspections can be broken down into five basic categories:
    1. Premises
    2. Plant
    3. Materials & Substances
    4. Procedures
    5. People

# PREMISES

- **Access and egress** – entrance to and exit from the workplace and premises.
- **Housekeeping** – methods of storage, location of equipment, reduction of clutter, removal of rubbish
- **Working environment** – lighting, temperature, noise etc.
- **Services** – adequacy of water (drinking and other) electricity, gas etc.
- **Fire/emergency precautions** – warning systems (alarms, pull stations, etc.) signs, clear exits, lighting, documented procedure, extinguishers, drills etc.

# PLANT

- **Tools and equipment** – condition and use
- **Machinery guarding** – adequacy of
- **Local Extract Ventilation** – adequacy, & function
- **Statutory inspection records** – boiler, air receiver, hoists & lifts etc.
- **Maintenance records** – equipment, tools to monitor performance.



# MATERIALS & SUBSTANCES

- **Use** – what is being used (chemicals etc.) how they are being used (what for, under what conditions)
- **Storage** – where they are being stored, under what conditions ( temperature, Ventilation)
- **Separation** – compatibility of materials in storage
- **Disposal** – how is waste disposed of and the environmental impact

# PROCEDURES

- **A safe system of work** – layout of the work, the system to be followed, training, warnings, supervision, PPE
- **Safe procedures** – methodology of performing the various tasks.
- **Permit-to work system** - lock-out-tag out, confined space entry, hot works etc.
- **Use of PPE** - selection & fit

# PEOPLE

- Behaviors/ organization culture
- Training
- Supervision
- Appropriately authorized persons
- Health surveillance

# RESULTS

- Evidence presented here demonstrates that there is a correlation between Safety and Productivity.
- It demonstrates that workers are humans with emotions, desires, needs and aspirations when they enter the workforce and if there is not a synergy between the organization's goals and that of the worker or that the systems and organizational culture does not facilitate the aims and objectives of both parties injury, illness absenteeism, presentism (at work, but not maximizing effort) on the part of the employee and the loss of productivity and the increasing cost of production on the part of the company will occur.
- The enactment of production oriented tools such as “Key Performance Indicators” give companies the false sense of achievement, as reaching targets is not necessarily an indication of productivity, as the targets might not have been achieved by the most effective or efficient utilization of the resources.

# RESULTS

- If quantified the resulting information will demonstrate that the implementation and enforcement of a Safety Management System can result in an efficient and effective production process and hence the profitability of the organization.
- Just Putting the Management System in place is no magic bullet, there must be a systematic approach to its implementation, i.e. a structured approach to inspections and monitoring as recommended in the Plan- Do – Check – System, utilizing a inspection technique applicable to the structure and function of your Organization.
- I am recommending a format that can be adopted to your individual organization's needs.

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**SAFETY MANAGEMENT IS JUST  
GOOD BUSINESS!**

**THANK  
YOU**

