Chapter 5:

Improvement Plans to raise employees having lower EHS Standards and reevaluating their improved EHS culture. Re-assessment of works environment.

5.1 Controlling of unsafe acts and unsafe conditions

Cause of Injuries

...Where do our injuries come from?

- Unsafe Conditions: 4%
- Unsafe Acts: 96%

96% of Injuries are caused because of unsafe acts of employees in industrial sectors. The unsafe acts are violations of rules, procedures, standards, standard operating procedures, wrong designing the layout by the engineers. It is therefore, important to control and eliminate the unsafe acts which in turn built up the better EHS culture in an organization.
• **Unsafe Act**: A conduct (whether witnessed or not) that
  - Unnecessarily increases the likelihood of injury, if not corrected
  - Violates established safety rules / procedures or unwritten rules of common sense and good judgment
  - May not have been previously recognized as presenting injury potential

• **Unsafe Condition**: Is a condition that may be caused by
  - The action or inaction of employees in any area that may lead to an incident or injury, if uncorrected.
  - Faulty design, incorrect fabrication or construction, or inadequate maintenance and subsequent deterioration.
The unsafe acts and unsafe conditions are the foundation for the serious injuries. Hence, it is essential to eliminate the unsafe acts of the employees at works site. The total elimination of unsafe acts and unsafe conditions at works site will build up the strong EHS culture.

- **Unsafe Acts and Unsafe Conditions**

  - The key point that differentiates unsafe conditions from unsafe acts is that unsafe conditions are normally beyond the direct control of employees in the area where the condition is observed.

- **How to eliminate the unsafe acts and unsafe conditions at works site?**

  - Daily Safety observations at works site to find out unsafe acts of the employees.
  - What energy hazards are present?
  - Are employees aware of the hazards?
  - Are primary & secondary controls in place for each task?
  - What training/knowledge is needed to do the task safely?
  - Is there a work/safety plan for the task? Is it followed?
  - Personal Protective Equipment - Is it properly used?
  - What are the positional hazards & risks? Is protection in place?
  - What are the ergonomic issues (posture, lifting, lighting, noise, repetitive motion, etc.)? What protection is in place?
  - Tools & Equipment problems - Right tools used? Are tools in safe condition? Are tools properly used?
  - What safety procedures apply to each task?
  - Procedures - Are they up to date, known, understood, practiced?
  - Is housekeeping good? Trends?

**Ways to reduce accidents:**

- By ensuring that all employees are competently trained to do their work.
- Identifying hazards in the job.
- Assessing the risks from the hazards.
- Managing the risk.
Controlling risk behaviour

Employees take calculated risk because of their complacent and long working services. The common and simple examples of risk behavior are working on energized equipment without electrical isolation. Working at Height without anchoring the hook of the full harness belt. Over speeding of vehicles on road. Speed Thrills, but it Kills.

5.2 Training Programs

To improve the EHS culture in the organization, the following training programs have been conducted for employees to raise their cultural levels.

- Safety Induction for new recruits
- Holistic approach for Safety Management
- Permit to Work and Protocol
- Road Safety Measures
- Working at Height
- Confined Space Entry
- Lock Out and Tag Out
- EHS Model

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JSW : JSW Steel Limited Employees
OS : Associates including Contractors’ Employees

Table-4
5.3 Reassessment of Works Environment

The works environment is gradually improved in the following area:

- Improved in Safety Performance. The incident rate and frequency rate have been reduced. The statistical graph has been shown in the next chapter.
- The noxious substance / gases in the environment substantial decreased because of Dust Extraction System installed at all fume generation units.
- The reduction of noise level has been achieved through the engineering control methods.
- The reduction of gas concentration has been achieved through the modification of works environment.
- The reduction of respirable dust / total dust concentration is reduced through the engineering control methods and use of better quality personal protective equipment.

The results of Works improvement have been shown in the next chapter.