Construction Hazards and Risks Control

Lecture Title: – Proactive Safety Management Systems in Construction

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Undergraduate Diploma in Occupational Health and Safety

Objectives

- **Generating safety management systems and their application in construction projects**

What is a Safety Management System?

- An OH&S Management System:

- Is a coordinated and systematic approach to managing health and safety risks.

- Specifies the framework in which the business manages the health and safety of workers.

- Characterizes a set of policies, procedures, processes, plans and practices for managing risks and hazards and enables a business to meet all legal obligations.

The Four Pillars of SMS.

- Elements of a Safety Management System in include

- Safety Policy

- Safety Risk Management

- Safety Assurance

- Safety Promotion.

- You're not required by law to implement a formal management system, but they can help provide a structured framework for ensuring a safe and healthy workplace

Group work

What do you think that is the first steps to take if you are newly employed in a company, and they would like to have a health and safety management system in place?

- Health and Safety policy
- Gap analysis

- Policy Development: Outline the significance of having a clear health and safety policy.

- Risk Assessment: Describe the process of identifying and analysing risks in the workplace.

- Planning: Discuss how to establish objectives and processes to minimize risks.

- Implementation: Explain how to effectively implement and communicate safety measures and procedures.

- Training: Highlight the importance of training employees on safety practices.

- Monitoring and Review: Discuss methods for monitoring safety performance and reviewing policies and procedures.

What are your thoughts of having a Safety Management System Certification?

Benefits

- Demonstrates commitment from senior leadership to internal and external interested parties.

- Commitment also provides assurance to the Board of Directors, Owners, Shareholders, etc...

- The standard promotes worker participation, which supports improvement in the safety culture and embeds best practice in daily operations, making safety management a sustainable tool.

- The standard provides a structure for ongoing review of compliance, which in turn creates room for continual improvement

- Certification itself is recognition for having achieved an international standard benchmark which can positively influence potential customers in fulfilling their own social responsibility commitment

Disadvantages

- Complexity and Bureaucracy
- Cost of Implementation
- Resistance to Change
- Limited flexibility
- False sense of security
- Documentation Burden
- Potential for Ineffective Implementation

How to calculate the SMS performance?

- Incident rates (accidents, near misses)

- Lost time injury frequency rates (LTIFR)

- Employee training completion rates

- Audit findings and follow-up actions

- Employee engagement in safety programs

ISO 45001

- This is an international standard for occupational health and safety management systems. It provides a framework for organizations to improve employee safety, reduce workplace risks, and create better, safer working conditions.

- Focuses on proactive measures to enhance safety culture, risk assessment, and continuous improvement.

HSG65

- This is a guidance document from the Health and Safety Executive (HSE) in the UK that outlines a framework for managing health and safety in the workplace.

- Emphasizes a systematic approach that includes policy, organizing, planning, and performance monitoring.

- [Managing for health and safety (HSG65)](#)

Total Safety Culture (TSC)

- This approach focuses on developing a proactive safety culture throughout the organization.

- Involves all employees in safety initiatives and emphasizes behavioural safety and accountability.

Six sigma for Safety

- Applies Six Sigma methodologies (focused on process improvement and quality control) to safety management.

- Uses data-driven approaches to identify and eliminate safety hazards and improve processes.

Safety Management Systems for Construction (SMC)

- Tailored specifically for the construction industry, focusing on managing safety risks associated with construction activities.

- Addresses unique hazards in construction, including site safety, equipment safety, and worker health.

Plan, Do, Check, Act Cycle

PDCA CYCLE

Plan
- Determine and assess the health and safety risks, health and safety opportunities and other risks and opportunities.
- Establish health and safety objectives and processes necessary to deliver results.

Do
- Implement the processes required to convert the inputs into the outputs, as planned.

Check
- Monitor and measure activities and processes regarding the health and safety policy and health & safety objectives and report the results.

Act
- Take actions to continually improve the health and safety performance to achieve the intended outcomes.

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