



# **FEDERATION OF MYANMAR ENGINEERING SOCIETIES**

## **The Effect of Occupational Health and Safety Management on Engineering Work Environment**

**Presented By**

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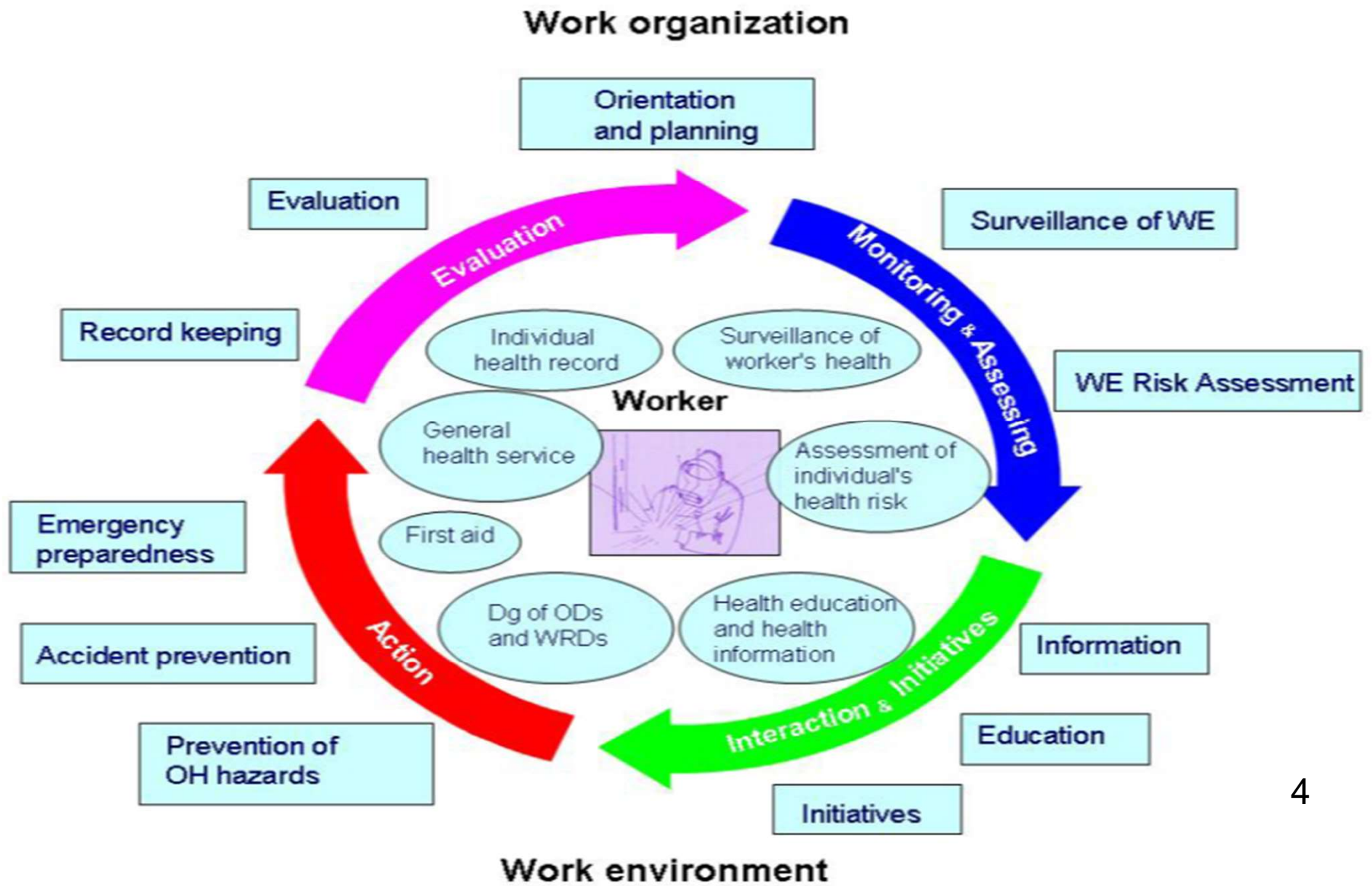
# Occupational Health & Safety

Definition:

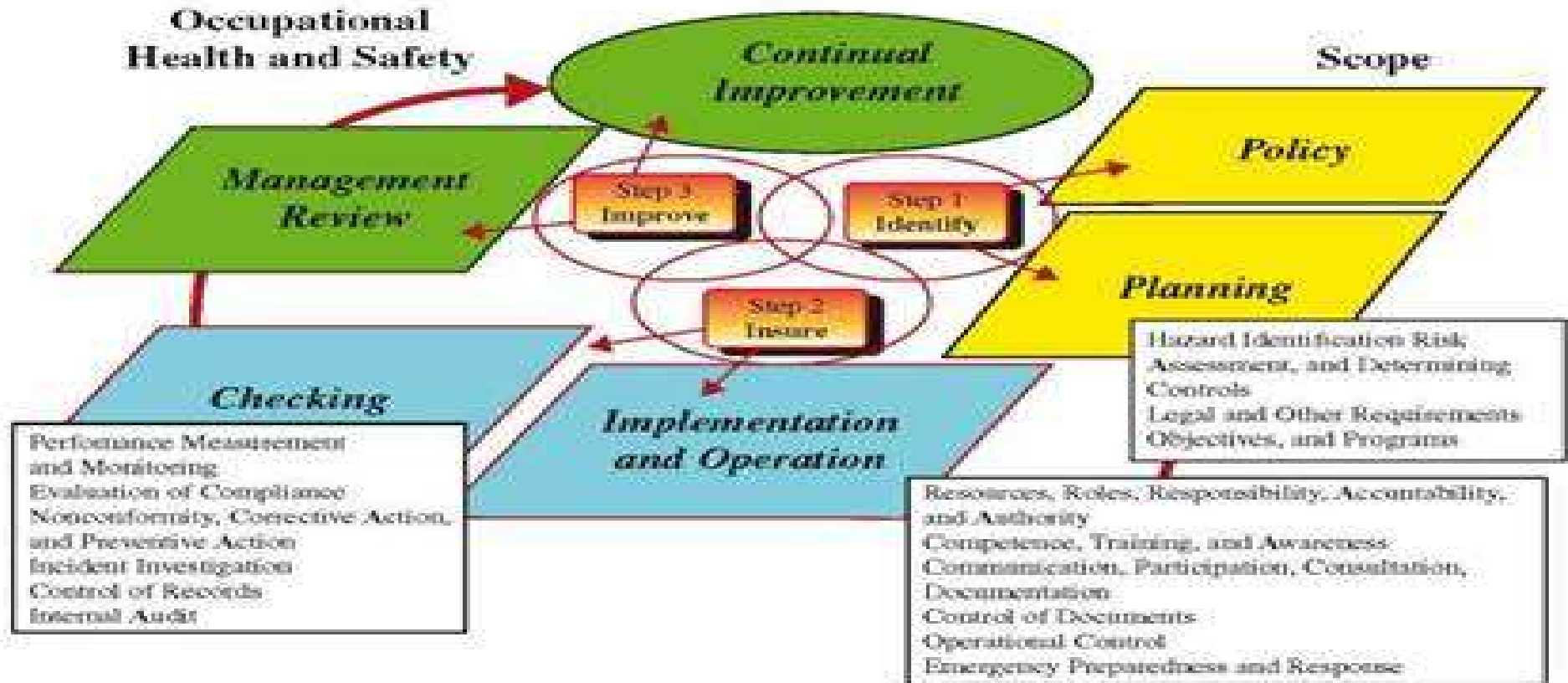
- ❖ Means by which to control aspects of work production that involve any degree of risk or danger that may cause injury or harm.
- ❖ This Process eliminates such elements to ensure employee safety and health.

## **The flow scheme of activities within the framework of BOHS**

The BOHS cycle follows the conventional action model: identification of needs —> assessment of problems —> management of actions —> evaluation of effect —> revision of the programme. The various steps indicated in Figure have a dual target: the work environment-oriented activities (outside the action cycle) or the worker-oriented activities (inside the action cycle), and often both simultaneously. It is important to see BOHS as a functional process instead of a number of separate actions.



# Occupational Health and Safety Management System Model



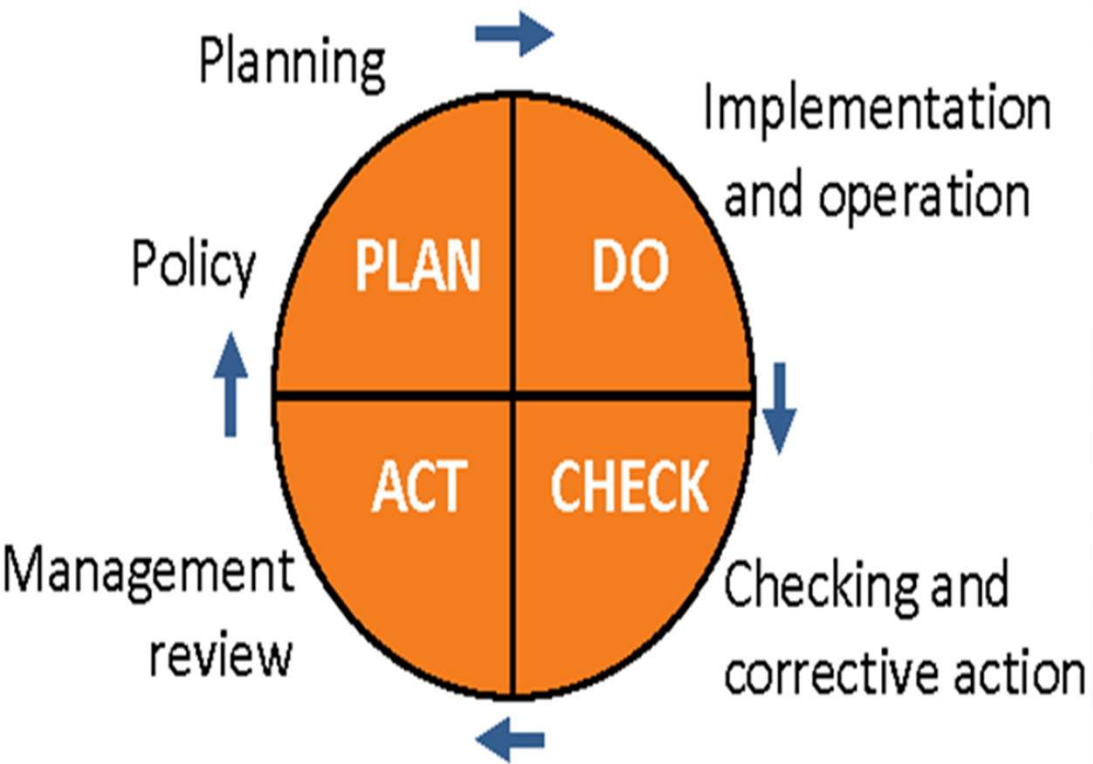
Source: Pilot Performance Resources Management Inc.

Note: OHSAS 18001:2007 will be replaced by ISO 45001:2016 (refer to Part 3 Annex SL).

**The PDCA cycle can be applied to the OH&S** management system and to each of its individual elements, as follows:

- ❖ Plan - determine and assess OH&S risks, OH&S opportunities and other risks and other opportunities taking into account issues identified in clause 4, establish OH&S objectives and processes necessary to deliver results in accordance with the organisation's OH&S policy;
- ❖ Do - implement the processes as planned;
- ❖ Check - monitor and measure activities and processes with regard to the OH&S policy and objectives, and report the results;
- ❖ Act - take actions to continually improve OH&S performance to achieve the intended outcomes of the OH&S management system.

# OHSAS 18001



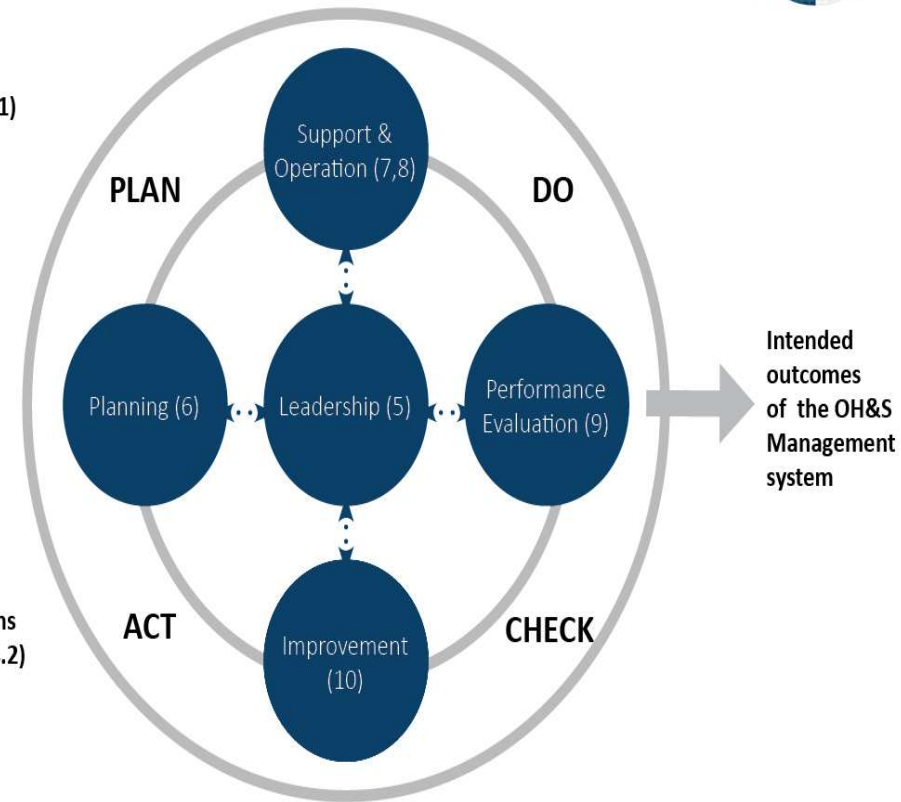
# ISO 45001



Internal and external issues (4.1)



Needs & expectations interested parties (4.2)



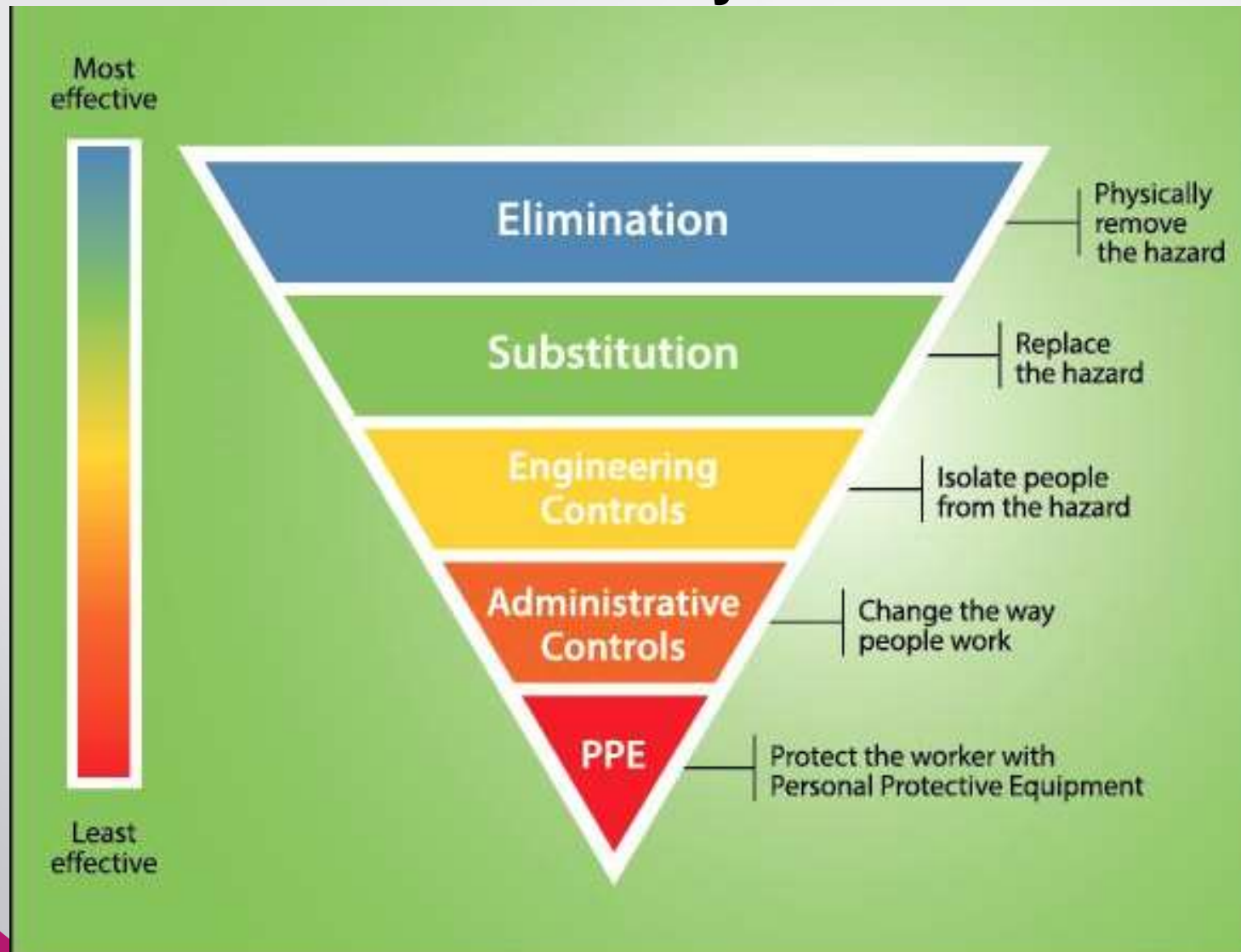
## What are the major differences between OHSAS 18001(2007) and ISO 45001(2018)?

The main difference between the two standards is ISO 45001 **takes a proactive approach that requires hazard risks to be evaluated and remedied before they cause accidents and injuries**, while OHSAS 18001 takes a reactive approach that focuses solely on risks and not solutions.





# The OHS hierarchy of controls



## Why work in a safe and healthy manner?

- ❖ Think of the possible hazards in an engineering workshop.
  - Working with heavy tools
  - Operating machinery
  - Contact with hazardous substances
  - Noisy machinery

## **For All Employees**

The Reasons for OH & S:

- ❖ Eliminates possible danger
- ❖ Safeguard employee productivity
- ❖ Means to promote workplace processes
- ❖ Protect employee rights
- ❖ Maintain worker health



## **Why is it important?**

1. Result in temporary or permanent injury, illness or even death
2. They also take a toll in reduced efficiency and loss of productivity

# Occupational health and safety graphic Safety statement





## How accidents occurred?

1. Poor working conditions
2. The use of improperly designed equipment and tools
3. Fatigue
4. Lack of skill
5. Risk taking

## **Our Safety Procedures**

- ❖ Written Instructions in OH&S Manual
- ❖ Regular Inspections by Safety Representatives
- ❖ Informal: Employee Observation
- ❖ In accord with legal regulations



## Education and training for health and safety managers

- ❖ Job of health and safety managers is more complex and diverse due to advancement of technology and new rules and regulations.
- ❖ Due to which the importance of Education and training has been increased.
- ❖ Formal education is important for providing foundation of related knowledge.
- ❖ In-service trainings are more effective for this purpose.

## Engineers and Safety

- ❖ Engineer has a very important role in health and safety issues and has more effect on health and safety than other persons.
- ❖ The most careless employee can't cause a fraction of problems caused by a careless engineer.
- ❖ Engineers ability of good and bad appears during design process.
- ❖ Not all but some engineers are design engineers.

## Safety Engineer

- ❖ A vast title in workplace
- ❖ It implies the person filling the position of degreed engineer because of formal education.
- ❖ The title also given sometime to safety managers.
- ❖ For this title, safety related formal education is needed not engineering.
- ❖ Industrial engineers are best as a safety engineer.

**Ladder Occupational safety and health Falling Construction site safety, ladder, technician, banner, accident**



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 Government Institutes

# Fundamentals of *Occupational* **SAFETY** *and* **HEALTH**

*Fourth Edition*

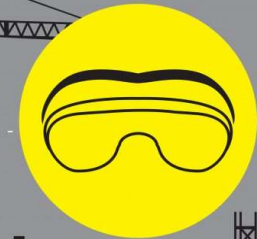
Mark A. Friend and James P. Kohn



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