



**INTRODUCTION TO  
OCCUPATIONAL  
SAFETY AND HEALTH 1  
(OSHA)**

**LECTURER:**

**AW101**

**CREDIT HR :1.0**

# INTRODUCTION

## What is occupational health and safety?

Occupational health and safety is a **discipline** with a broad scope involving many specialized fields.

Should **aim** at:

- The **promotion and maintenance** of the highest degree of physical, mental and social well-being of workers in all occupations.
- The **prevention** among workers **of adverse effects on health** caused by their working conditions.
- The **protection of workers in their employment** from risks resulting from factors adverse to health.

The header features a horizontal blue bar with the text 'INTRODUCTION...' in bold black font. Above the bar are five circles: the first, third, and fifth are solid light purple, while the second and fourth are hollow light purple outlines.

## INTRODUCTION...

- The placing and maintenance of workers in an occupational environment adapted to physical and mental needs.
- The adaptation of work to humans.
- In other words, occupational health and safety encompasses the **social, mental and physical well-being of workers.**

# HISTORY

- The role of occupational safety and health in Malaysia has been in **existence since 120 years ago**, in the end of the 19 century.
- Starting with the safety of the boiler and then into for machinery safety.
- followed by security industrial, industrial safety and health, and finally covering safety and health covering all sectors.
- History, role and development department can explained in five eras.

## HISTORY.. 1. Boiler Safety Era - before 1914

- Occupational Safety and Health duties are the first carried out in Malaysia in the year **1878**, where Mr. William Givan was appointed as Machinery Inspector.
- He was assigned to **check the safety of the boiler** when is mainly used in tin mines.
- At around the **1890s**, the Perak state government has implemented inspection system by individuals, which a **person qualifications in the field of steam boilers is licensed to be a boilers surveyor**.
- In 1892 there were 83 steam boilers in Perak. The **Boiler Surveyor** system was **discontinued in 1900** as C. Finchman appointed as Inspector of boiler.
- the **first Legal boiler** enactment is **Selangor Boiler Enactment 1892**. Meanwhile in **Perak**, Legislation was first enacted **in 1903**.
- In **1908** the State's then-Federated Malay States legislation has their own boilers, and all the **examiners** at that time **known as the 'Inspector of boiler**.

## HISTORY..2. Machinery Safety Era - 1914 to 1952

- At 1st. **January 1914**, enactments of the steam boiler in the Malay States was repealed and **replaced with Machinery Enactment of 1913**.
- Enactment of 1913, inspectors were not only **inspection of steam boilers**, but also on **other machinery**, including internal combustion engines, water turbines and related auxiliary equipment installation.
- At the same time the position of **Boiler Inspector** also abolished and **replaced by the Inspectors of Machinery** and Assistant Inspector of Machinery.
- In 1932, **Machinery Enactment of 1913** was repealed and **replaced with Machinery Enactment of 1932**.
- Inspection and registration and inspection of the installation were enforced. The inspectors of machinery is in under the administration of the Mines Department (Machinery branch).
- This was because most of the machinery concentrated in the mining sector at that time.

## HISTORY .. 3. Industrial Safety Era - 1953 to 1967

- Machinery Branch is under the Department of Mines until 1952. Branch Machinery (Machinery) has been separated from the Department of Mines and assumed the name of the Machinery Department.
- Separation is necessary because most of the developed examination outside of the mining industry.
- In 1953, all machinery used in the enactment has been repealed and replaced with Machinery Ordinance 1953.
- With the enforcement of Ordinance 1953, the role of the examiner is not more focused on the safety of boilers or machinery, but also include the safety of workers in factories where machinery was used.
- Ordinance 1953 has a shortfall in the health aspects workers even though there are regulations on safety, health and workers under the ordinance, but it's not fully enforced.

## HISTORY...4. Industrial Safety and Health Era - 1970 to 1994

- In 1967, the Factories and Machinery Act was approved by Parliament.
- In 1970, the Factories and Machinery Act and eight regulations made under it were enforced.
- Machinery Ordinance 1953 was repealed and the name of the department was changed the Factories and Machinery Department.
- The inspectors who enforce the Act called Inspector of Factories and Machinery.
- This Act is designed to overcome lacking found in the Machinery Ordinance 1953, in terms of scope of coverage of workers, where workers in the workplace is no machinery are also covered.



## HISTORY..5. Occupational Safety and Health Era -after 1994

- The new legislation enacted Occupational Safety and Health at 1994.
- Occupational Safety and Health Act 1994 (Act 514) has been approved by the Parliament in 1993 and was gazetted on February 1994.
- This legislation was made in view of the Factories and Machinery 1967 only covers occupational safety and health in the sector manufacturing, mining and quarrying and construction, which safety and health of workers in the other industries do not covered.
- Workers engaged under the Factories and Machinery Act 1967 only 24% of the total workforce, while the Internal Security Act and Health Act 1994 cover 90% of energy work and would exempt those working on ships and military.

## HISTORY.....5. Occupational Safety and Health Era -after 1994

- Occupational Safety and Health Act 1994 is aimed to foster and promote safety awareness among health workers and also create organization with effective safety and health regulations.
- This is done through self-regulation scheme that relevant to the industry or related organizations.

## IMPORTANCE OF SAFETY IN WORKPLACE

- **Work** plays a **central role** in people's lives.
- Most workers spend at least **8 hours** a day **in workplace**. (*Plantation, office, factory etc.*)
- Therefore, work **environments** should be **safe and healthy**.
- Every day **workers** all over the world are **faced** with multitude of **health hazards**, such as:
  - Dust
  - Noise
  - Extreme temperatures.
  - Gases
  - Vibration
- Some employers assume **little responsibility** for the protection of worker's health and safety.
- As a **result** of the hazards and a lack of attention given to health and safety, **work-related accidents and diseases** are common in all parts of the world.

## MAJOR SAFETY TERMINOLOGIES

### i. SAFETY

The condition of being safe from undergoing or causing hurt, injury or loss.

### ii. HAZARD

**A hazard introduces the potential for an unsafe condition, possibly leading to an accident.**

### iii. RISK

**The probability or likelihood of a Hazard resulting in an accident.**

### iv. INCIDENT

**Undesired circumstance that produces the potential for an ACCIDENT.**

## MAJOR SAFETY TERMINOLOGIES

### v. ACCIDENT

An accident is an unplanned event, which could result in injury to persons, or in damage to plant and equipment or both. (James, D.W.B., 1983, 5).

### vi. ACCIDENT COST

Accident cost includes medical Payments, Compensation, overtime for replacement workers, production delays, product or material damage, training of replacements, accident investigation cost, building or complex damages, equipment damages and business interruptions. (Boley, Jack W. 1977, 19).

## TYPES OF ACCIDENTS

### The most frequent accidents in the workplace:

- **Fall and crushing**
  - wet or contaminated conditions
  - result in head injuries, broken bones and major fractures to limbs and even death where the fall is from height.
- **Manual Handling**
  - activity that includes lifting, lowering, pushing, pulling, carrying, moving, holding or restraining an object, animal or person.
  - musculoskeletal disorders to backs, strains to hands, arms, feet, tendons and heart .
- **Workplace Traffic Accidents**
  - Warehouse depot with heavy goods vehicles and any place of work where people can come and go in motorized vehicles.
  - struck by a moving vehicle, falling from, or materials falling from, a vehicle and the collapse or overturning of a vehicle.

## TYPES OF ACCIDENTS.....

### Other Areas:

- Struck by object in motion.
- Drowned, buried, enveloped in gas or airborne particles.
- Fire
- plant and heavy machinery
- stabbed by sharp object.
- suffer burns or breathing problems - working with hazardous substances.

## Most frequent modes of injury in related fields, fatal and non-fatal ...

Sector or subsector, based on NACE Rev.1	Most frequent mode of injury (typical accident)	
	Non-fatal	Fatal
<b>B. Fishing</b>	Horizontal or vertical impact with or against a stationary object while the victim is in motion (fall, crush)	Drowned, buried, enveloped in gas or airborne particles
<b>C. Mining and quarrying</b>	Struck by object in motion	Horizontal or vertical impact with or against a stationary object while the victim is in motion (fall, crush)
<b>DA. Manufacture of food products, beverages and tobacco</b>	Horizontal or vertical impact with or against a stationary object while the victim is in motion (fall, crush)	Horizontal or vertical impact with or against a stationary object while the victim is in motion (fall, crush)
<b>DJ. Manufacture of basic metals and fabricated metal products</b>	Struck by object in motion	Horizontal or vertical impact with or against a stationary object while the victim is in motion
<b>F. Construction</b>	Horizontal or vertical impact with or against a stationary object (fall, crush)	Horizontal or vertical impact with or against a stationary object while the victim is in motion (fall, crush)

*Note: NACE = Nomenclature générale des activités économiques dans les Communautés européennes (General industrial classification of economic activities within the European*





# THE END

