

COURSE n° 1: Basic Concepts of Health & Safety

INTRODUCTION

Most people would agree that poor working conditions of any type have the potential to affect a worker's health and safety. It would also be agreed that our aim should be to eliminate or at least minimize the risk of accident or injury; and to protect workers from the effects of ill-health caused by their working conditions. However, those aims are not that simple to achieve in practice.

The subject of health and safety is, like all subjects, full of its own language and terminology – we have already started to use some, such as *hazards* and *risks*. It is important to be clear about a number of the basic concepts of the subject and here we shall define and explain certain underlying principles.

1. BASIC DEFENITIONS

a) Risk management

Is the process of **identifying**, **assessing**, and **prioritizing** risks, followed by the efficient and well-coordinated use of resources in order to *maximize the realization of opportunities or reduce the likelihood or impact of unfortunate events*.

"Source: The International Organization for Standardization (ISO)"



Diagram 01 – risk management process diagram.

b) Health

A state of complete physical, mental, and social well-being and not merely the absence of disease, or infirmity.

"Source: World Health Organization (WHO)"

c) Safety

Safety is not merely the absence of accidents, but the results of ALL persons taking positive actions to identify accident causes and implement suitable preventative measures

d) Welfare

Welfare is the availability of facilities and the presence of conditions required for reasonably comfortable, healthy, and secure living.

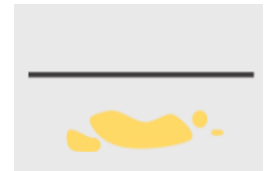
e) Hazard

“Something *that is dangerous and likely to cause damage*”.

“Source: Cambridge Dictionary”

A source, situation, or act **with a potential for harm** in terms of human injury or ill health, or combination of these.

Example: A liquid soap on the floor is something that can potentially cause harm.



A liquid soap on the floor

f) Risk

“The *possibility of something is bad happening*”.

“Source: Cambridge Dictionary”

The **likelihood** that somebody or something could be harmed by hazards, with an indication of how serious that harm might be.

Example: Possibility of HAZARD causing harm.

$$(\text{Risk} = \text{Hazard} + \text{Exposure})$$



Exposition of worker to hazard

Exercise 01: Hazard and Risk

In each Situation/Act you will be crossing on foot.

A. Situation /Act	B. Hazard	C. Severity	D. Likelihood	E. Risk
Crossing country road				
Crossing freeway				
Crossing bike path				

Step 1: Please identify the Hazards (column “B”).

Step 2: Rate how likely the hazard is to occur in column “D” as (1) Low, (2) Medium or (3) High.

Be prepared to justify your answers, and skip Column “C” and “E”.

Now certain hazards are more severe than others

Step 3: identify the severity of the hazard in column “C” using the rating scale:

- (1) *Minor injury, negligible lost time, property damage less than 1,000DZA,*
- (2) *7 days lost time, permanent injury, property damage 10,000 DZA or more,*
- (3) *Fatality, 30 days lost time, Property damage 100,000 DZA or more.*

Step 4: To assess the risk, **multiply** the number in the “Severity” column (“C”) by the number in the “Likelihood” column (“D”).

Step 5: Which has the highest risk?

g) Acceptable risk

Risk that has been **reduced to a level** at which can be tolerated by the organization having regard to its legal obligations and its own Occupational Health & Safety policy.

h) Accident

Accident is an incident which has given rise to injury, ill health, or fatality.

i) Near miss

A near miss is an incident which results to no injury, no damage to property/equipment/machinery, and no environmental effect but has the potential for all those.

j) Harm

Harm includes death, injury, physical or mental ill health, damage to property, loss of production, or any combination of these.

k) Fatality

Death due to a work related injury or illness regardless of the time between the injury or illness and death.

l) Risk assessment

Risk assessment is a **systematic process** performed by a competent person in which involves **identifying, analyzing, and controlling** hazards and risks present in a situation or a place.

m) Hazard Control or Risk Control

Hazard control or risk control is a part of the risk management process in which **implemented methods** neutralize or reduce identified risks.

n) Competence

It can be described as the combination of training, skills, experience and knowledge that a person has and their ability to apply them to perform a task safely.

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Exercise 02: Hazard and Risk

For each statement below mark **X** for True or for False.

True	False	Statement
		An incident is always an accident
		Another way to describe “Acceptable Risk” is “Tolerated Risk”
		A hazard always results in an accident
		Risk is determined by Severity divided by Likelihood.