

UNIT 11

BUSINESS PREVENTION MANAGEMENT

1

RISK MANAGEMENT

Some hazards and their controls will be specifically outlined in legislation. In all cases, the employer has a duty of due diligence and is responsible for taking all reasonable precautions, under the particular circumstances, to prevent injuries or accidents in the workplace (Spanish Labour Risk Management Act / Ley de Prevención de riesgos Laborales).

Risk management is about taking practical steps to protect people from real harm and suffering. This must be approved by the board of directors of the company and outlined in a document, "Health and Safety Management Plan", that must be available to the labour authority, health authorities and the workers' representatives.

2

HEALTH AND SAFETY MANAGEMENT PLAN (PLAN DE PREVENCIÓN)

This Health and Safety Management Plan defines how risks associated with work will be identified, analysed, and managed. It outlines how risk management activities will be performed, recorded, and monitored, and provides templates and practices for recording and prioritising risks by the Risk Manager and/or Risk Management Team.

The employer must have in place written this plan that, as a minimum, includes:

- Company identification information** (area of operation, workplace characteristics and number of workers).
- Company's organisation structure** (functions and responsibilities of the different hierarchical levels related to labour risk prevention).
- Organisation of the production** (technical processes, practices and procedures related to health and safety).
- Company's prevention organisation** (type of preventive action and existing workers' representative bodies).
- Policy, objectives and preventive targets**, as well as the **required resources** (economical, technical, material, human) to achieve them.

2.1 RISK ASSESSMENT

Risk assessments are very important as they form an integral part of a good occupational health and safety management plan.

In practical terms, a risk assessment is a thorough look at the workplace to identify those things, situations, processes, etc., that may cause harm, particularly to people. After identifi-

cation is made, it has to be evaluated how likely and severe the risk is, and then decide what measures should be taken to effectively prevent or control the harm from happening.

Assessments should be done by a competent team of individuals who have a good working knowledge of the workplace. Staff should be involved always include supervisors and workers who work with the process under review as they are the most familiar with the operation.

Risk assessment is the process where the employer:

1

Identify hazards and gather them up on a check-list.

2

Analyse and evaluate the risk associated with that hazard.

There is no one simple or single way to determine the level of risk.

One option is to use a table similar to the following as established by The National Institute for Safety and Hygiene at Work:

Classify the risks according to the magnitude of the potential harm and the probability that the loss will occur.

SEVERITY OF HARM

Severity is a measure of how serious the injury, ill-health or damage to the environment could be as a consequence of unsafe working.

Minor (slightly harmful):

- Cuts, bruises, scratches, eye irritation because of dust.
- Aches and pains; headache, discomfort.

Moderate (harmful):

- Lacerations, burns, shocks, serious sprains, minor fractures.
- Deafness, dermatitis, asthma, musculoskeletal disorders, disease that leads to minor disability.

Major: (extremely harmful):

- Amputations, major fractures, poisoning, multiple injuries, fatal injuries.
- Cancer and chronic diseases that shorten life expectancy.

LIKELIHOOD

Likelihood is a measure of how likely it is that an accident or ill-health could happen.

Unlikely: the risk seldom happens (below 30% probability of occurrence).

Likely: the risk sometimes happens (between 30% and 70% probability of occurrence).

Very likely: the risk very often or always happens (above 70% probability of occurrence).



Acceptable risk is a risk that is understood and tolerated usually because the cost or difficulty of implementing an effective countermeasure for the associated vulnerability exceeds the expectation of loss.

RISK LEVEL	ACTIONS AND TIMING
Acceptable risk (low and tolerated)	No additional actions are required unless they can be implemented at very low cost (in terms of time, money, and effort). Arrangements should be made to ensure that the controls are maintained.
Acceptable risk (medium)	Risk reduction measures should be implemented within a defined time period. Arrangements should be made to ensure that controls are maintained
Unacceptable risk (high)	Risk reduction measures should be implemented urgently within a defined time period and it might be necessary to consider suspending or restricting the activity. Considerable resources might have to be allocated to additional control measures. Arrangements should be made to ensure that controls are maintained.

RISK LEVEL	ACTIONS AND TIMING
Unacceptable risk (extreme)	<p>These risks are unacceptable.</p> <p>Substantial improvements in risk control measures are necessary so that the risk is reduced to a tolerable or acceptable level.</p> <p>The work activity should be halted until risk controls are implemented to reduce the risk, so that it is no longer very high. If it is not possible to reduce the risk, the work should remain prohibited.</p>

EXAMPLE 1



A young person has started a mobile phone repairing service business. Is he/she obliged to carry out a Risk Assessment in the business?

Answer:

Yes, the Labour Risk Management Act obliges anyone who starts up a business to carry out a Risk Assessment, regardless of the activity or the size of the business.

It must be carried out with the start of the business activity and must be repeated periodically whenever the work conditions or machinery change, or when any worker has suffered from any harm.

EXAMPLE 2



A young girl works as a telephone operator in a heating and cooling business technical service; her tasks are to take the customers' phone calls and give the notifications to the technicians.

The office where she works is very small and sometimes she hits her body against the tables and chairs. There is no window in the office and therefore no natural light and the artificial light is insufficient (she suffers from pain in her eyes). The premise has no ventilation.

The chair she uses is not adjustable and because she is short she cannot put her feet onto the floor while she's sitting.

Lately she is suffering from pain in her wrists and the traumatologist has diagnosed her wrist tendon inflammation.

At present she works alone in the office because her workmate is on a sick leave and has a high workload. Although the company is going to hire another worker, it hasn't hired anyone yet.

According to the risk assessment carried out by an external risk management service, the hazards at work for this telephone operator and the precautions that should be taken are:

HAZARDS	RISKS	PRECAUTIONS
Safety hazards	<ul style="list-style-type: none"> Hits herself on objects Physical workload 	<ul style="list-style-type: none"> Redistribution of interior spaces, taking away furniture not in use Adjustable chair and adjustable footrest Use of palm rest
Environmental physical hazards	<ul style="list-style-type: none"> Visual fatigue due to poor lighting Thermal discomfort because of lack of ventilation 	<ul style="list-style-type: none"> Improve lighting system, introducing more lamps and luminaires or lights with more intensity Implementation of an artificial ventilation system
Psychosocial hazards	<ul style="list-style-type: none"> Stress due to work overload 	<ul style="list-style-type: none"> Check or review the company's hiring policy

Fill in the National Institute for Safety and Hygiene at Work, (Instituto Nacional de Seguridad e Higiene en el Trabajo-INSHT) Risk Assessment form, estimating and assessing the risks at work in this business.

RISK IDENTIFICATION	LIKELIHOOD						SEVERITY			RISK LEVEL			ACTION REQUIRED
	U	L	VL	MIN	MO	MA	LOW	ME-DIUM	HIGH	EX-TREME			
Hits with objects		x		x			x						Redistribu-tion of interior spaces
Physical workload			x		x				x				Adjustable chair and footrest
Stress			x		x				x				Review the company's hiring policy
Visual fatigue		x			x			x					Introduce luminaires with more intensity

RISK ASSESSMENT (POSITION OF ADMINISTRATIVE ASSISTANT)											
RISK IDENTIFICATION	LIKELIHOOD			SEVERITY			RISK LEVEL			ACTION REQUIRED	
	U	L	VL	MIN	MO	MA	LOW	ME-DIUM	HIGH	EX-TREME	
Thermal discomfort		x		x			x				Implementation of an artificial ventilation system

2.2 RISK RESPONSE PLANNING (PLANIFICACIÓN DE LA ACCIÓN PREVENTIVA)

Once the risk assessment is done the next step will be the risk response planning.

A written workplace risk response planning should outline which methods are being used to control the exposure and how these controls will be monitored for effectiveness.

The aim is to adopt measures to avoid or reduce those risks, prioritising the actions depending on the level of risk and the number of workers exposed, and fixing a time limit for carrying them out.

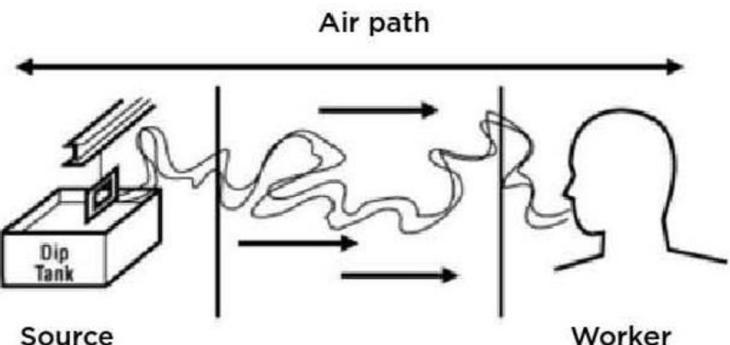
According to the Council Directive 89/391/ECC of June 1989 and to article 15 of the Labour Risks Management Act:

The employer shall implement the measures on the basis of the following general principles:

- ✓ Avoiding risks, for instance, avoid working in a noisy environment.
- ✓ Evaluating the risks which cannot be avoided.
- ✓ Combating the risks at the source and reducing risks to a minimum.
- ✓ Adapting the work to the individual, especially with regards to the design of work places, the choice of work equipment and the choice of working and production methods, with a view, in particular, to alleviate monotonous work and work at a predetermined work-rate and to reduce the effects on health.
- ✓ Adapting to technical progress, for instance, replace a machine for a new modern machine with more protection for workers.
- ✓ Replacing the dangerous with the non-dangerous or the less dangerous, e.g., replace a flammable chemical agent for another less combustible.
- ✓ Developing a coherent overall prevention policy which covers technology, organisation of work, working conditions, social relationships and the influence of factors related to the working environment, for instance, carrying out vaccination campaigns and medical check-ups.
- ✓ Giving collective protective measures priority over individual protective measures.
- ✓ Giving education and training to the workers.

Controls should be placed following this order:

- 1st At the source (where the hazard "comes from")
- 2nd Along the path (where the hazard "travels")
- 3rd To the worker



3

RISK MANAGEMENT ORGANISATION WITHIN A BUSINESS

The Regulation of Risk Management Services / Reglamento de los Servicios de Prevención (RD 604/2006) establishes that the employer can choose among different risk management organisation modalities:

3.1 EMPLOYER RETAINS OWNERSHIP

This modality can be adopted when:

- Companies have a maximum 10 workers (25 if the company has only one workplace) and whenever the activity carried out by the company is low hazard.
- The employer works regularly in the workplace and has suitable training capabilities.

If the employer cannot take personal responsibility on certain risk management actions, e.g., health surveillance, another organisation modality must be used for these specific areas.

3.2 APPOINTMENT OF EMPLOYEE/S

The employer may appoint one or several workers whenever:

- The workers possess training capabilities according to the tasks they must carry out.
- The company is not obliged to create its "In-House Risk Management Service".
- The employer does not retain ownership of the risk management organisation.

Risk management actions that cannot be assumed under this modality will be developed by one or more, internal or external, risk management services.

3.3 IN-HOUSE PREVENTION SERVICE

This modality must be chosen under certain conditions:

- The business must have more than 500 employees.
- Businesses with between 250 and 500 employees which perform activities with a special danger.
- Whenever the labour authority determines a business is obliged (for companies defined in Risk Management Service Rules (RSP) Annex I, with specific activities involving special risk) or depending on the number of work accidents in the business, unless the company decides to outsource the risk management organisation.

This modality must be carried out by trained workers and with the necessary resources. An annual report and scheduling of activities must be drawn up and at the disposal of the competent authorities.

3.4 EXTERNAL RISK MANAGEMENT SERVICE

A specialised enterprise provides this service externally, so that the company develops the activities related to risk management which are legally demanded. In Spain a good example of these enterprises are the "mutual insurance companies".

The enterprise providing the External Risk Management Service must be accredited by the Labour Administration, and it cannot have any kind of commercial or financial link with the company that is receiving the service.

There is a legal obligation for a company to contract an External Risk Management Service:

- When the internal designation of one or two Health and Safety delegates is not enough to carry out the risk management activity needed.
- When the risk management of the company is only partially developed.
- When the company is not obliged to create its own in-house risk management service.

Companies that do not hire an external risk management service for all their activities must have their risk management system audited every 5 years or whenever the labour authority requires it.

The most common resource for both micro-enterprises and small enterprises is an external risk management service, while in-house risk management services are much more common among larger companies.

3.5 JOINT RISK MANAGEMENT SERVICE

A joint risk management service can be adopted when:

- Different businesses belong to the same industry.
- The businesses perform their activities in the same building or a specific geographic area.

There must be a consultation with the workers' representatives of every business concerned.

4

WORKERS' REPRESENTATIVES IN HEALTH AND SAFETY (H&S) AT WORK

According to the Law 31/1995 - employee representatives for H&S matters fall into one of two categories: prevention delegates and/or H&S committee members.

The rights and responsibilities of prevention delegates and H&S committee are also regulated by this law. However, these responsibilities could be assigned to other specific bodies if a different agreement is reached through collective bargaining.

4.1 HEALTH AND SAFETY DELEGATES

In most cases, H&S delegates are designated by and among personnel representatives. The number of H&S delegates in a company depends on the number of employees, according to the following scale:

NUMBER OF WORKERS IN THE BUSINESS	NUMBER OF H&S DELEGATES IN THE BUSINESS
From 11 to 30 workers	1 (this will be the personal delegate)
From 31 to 49 workers	1
From 50 to 100 workers	2
From 101 to 500 workers	3
From 501 to 1,000 workers	4
From 1,000 to 2,000 workers	5
From 2,001 to 3,000 workers	6
From 3,001 to 4,000 workers	7
From 4,001 onwards	8

According to the
31/1995 Act, the
key roles of the
H&S delegates are
as follows:

- Collaborate with the management board to improve risk management in the company.
- Promote cooperation amongst workers to apply H&S regulations.
- Represent the workers for all decisions regarding article 33 of the LRPL (the management board must consult the H&S delegate/s prior to making any decisions related to H&S).
- Control and survey the fulfillment of H&S regulations.

- If a serious infringement had been committed by a H&S delegate, the workers council and the rest of the delegates have the right to be heard.
- Have priority in relation to their permanence within the company in case of redundancy for technological or economic circumstances (ERE).
- Not to be discriminated against due to their role as the H&S delegate.
- Not to be fired nor punished during their mandate and the year after (disciplinary causes are not included).
- Inform, publish and distribute anything related to any aspect of risks management.
- Have allocated time within their working hours to perform their responsibilities and functions:

The guarantees of the H&S delegates are:

NUMBER OF HOURS	NUMBER OF WORKERS IN THE COMPANY
15	At least 100
20	From 101 to 250
30	From 251 to 500
35	From 501 to 750
40	750 onwards

- Time devoted to information and training in H&S is always considered as part of the working day (the employer is responsible for the information and training of the H&S delegates and must update training as new risks arise).

4.2 HEALTH AND SAFETY COMMITTEE

With regards to the **H&S Committee**, the Law states that this body must exist in all companies or workplaces **with 50 or more employees**.

This H&S committee is a **joint body composed equally by workers' H&S representatives (H&S delegates) and employers**.

The responsibilities of the H&S Committee are the following:

- Participate in the elaboration, implementation and evaluation of risk management plans.
- Promote initiatives regarding measures for effective risk response and suggest the improvement of existing deficiencies.

The rights of the H&S committee are:

- Know the real situation of the company concerning hazard control measures, by visiting the workplace.
- Know all reports on working conditions needed for the development of its tasks.
- Know and analyse all incidences on workers' health.
- Know and be informed about annual reports and planning regarding hazard control.

5

SELF-PROTECTION PLAN

A Self-Protection Plan can be simply understood to be a system of control and security management to prevent and control the risks over persons and goods. It gives an appropriate reaction to emergency situations and to guarantee the integration of these actions with the Public Civil Protection (art.1.2 - R.D.393/2007).

The Self-protection plan is mandatory by law for:

- Education facilities, health centres, care facilities (nursing homes, disabled housing...).
- Manufacturing industries, storage and distribution centres.
- Transport and energy companies.
- Public shows and amusement parks.

The self-protection plan shall be a periodically updated document to adapt to changes through three main action guides:

- Evaluation of risk situations.
- Make an inventory of the existing resources.
- Establish the route action to be taken.

The RD 393/2007, 23rd March refers to the self- protection basic norms for work places, establishments, and premises involved in activities that may give rise to emergency situations and sets **the contents of self-protection plan**:

- ✓ 1. Owner's and site identification
- ✓ 2. Detailed description of the business activity and its environment
- ✓ 3. Risks inventory, analysis and evaluation
- ✓ 4. Inventory and description of self-protection measures and resources

- 5. Implement an installation maintenance program
- 6. Emergency action plan
- 7. Integration of self-protection plan in higher level plans
- 8. Self-protection plan implementation
- 9. Evaluate the effectiveness and make upgrades to self-protection plan

It will also include a technical report from an architect with their expert opinion on the building condition, together with recommended actions for improvement.

5.1 EMERGENCY ACTION PLAN

A wide variety of emergencies both man-made and natural may require a workplace to be evacuated. These emergencies include - fires, explosions, floods, earthquakes, hurricanes, tornadoes, toxic material releases, radiological and biological accidents, civil disturbances and workplace violence.



An emergency action plan (EAP) is a written document which purpose is to facilitate and organise employer and employee actions during workplace emergencies. It is compulsory for all business.



Well developed, emergency plans and proper employee training (such that employees understand their roles and responsibilities within the plan) will result in fewer and less severe employee injuries and less structural damage to the facility during emergencies. A poorly prepared plan will likely lead to a disorganised evacuation or emergency response, resulting in confusion, injury, and property damage.

An emergency plan must include:

- Identification and classification of emergencies.
- Protocols for emergency action.
- Identification of emergency response teams.

5.1.1 Evacuation Plan

Emergency evacuation plan is a part of the emergency action plan. A wide variety of emergencies both man-made and natural may require a workplace to be evacuated.

These emergencies include: fires, explosions, floods, earth quakes, hurricanes, tornadoes, toxic, material releases, radiological and biological accidents, civil disturbances and workplace violence.



Emergency evacuation is the immediate and rapid movement of people away from the threat or actual occurrence of a hazard.

Emergency evacuation plans are developed to ensure the safest and most efficient evacuation time of all expected residents of a premises.

A benchmark “evacuation time” for different hazards and conditions is established. These benchmarks can be established through using best practices, regulations, or using simulations, such as modeling the flow of people in a building, to determine the benchmark.

Evacuation drills must be carried out at least once every twelve months.

EMERGENCY EVACUATION PROTOCOL

- On hearing an evacuation alarm, or on instruction of emergency control personnel, immediately cease all activity. Do not run.
- Assist any person in immediate danger, but only if safe to do so.
- If practical, and only if safe to do so, secure any activity or process that may become hazardous or suffer damage if left unattended as a consequence of evacuation.
- Act in accordance with directions given by emergency control personnel and evacuate the building immediately.
- Assist with the general evacuation if directed to do so by emergency control personnel.
- Assist with the evacuation of disabled occupants.
- In a fire, do not use a lift to evacuate a building and close the doors.
- Move calmly to the nominated evacuation assembly area and do not leave the evacuation assembly area until the all clear has been given.
- Follow the instructions of relevant emergency services personnel and emergency control personnel.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE stands for Personal Protective Equipment. PPE means any device or appliance designed to be worn or held by an individual for protection against one or more health and safety hazards (RD 1470/1992 and RD 733/1997).

The fundamental principle is that personal protective equipment (PPE) should only be used as a last resort.

Where PPE is provided, employees must be informed of the risks against which they are being protected by the PPE.

Employees must also be provided with suitable information, instruction and training (including training in the use, care or maintenance of PPE) to enable them to make proper and effective use of any PPE provided for their protection.

Employees should use PPE properly whenever it is required to be used.

Any item of PPE imposes a barrier between the wearer/user and the working environment. This can create additional strains on the wearer; impair their ability to carry out their work and create significant levels of discomfort. Any of these can discourage wearers from using PPE correctly, therefore placing them at risk of injury, ill-health or, under extreme circumstances, death.

Good ergonomic design can help to minimise these barriers and can therefore help to ensure safe and healthy working conditions through the correct use of PPE.

CHARACTERISTICS OF THE PPE

- Effective
- Innocuous or harmless
- Ergonomic



SAFETY SIGNS, SYMBOLS AND COLOUR CODES

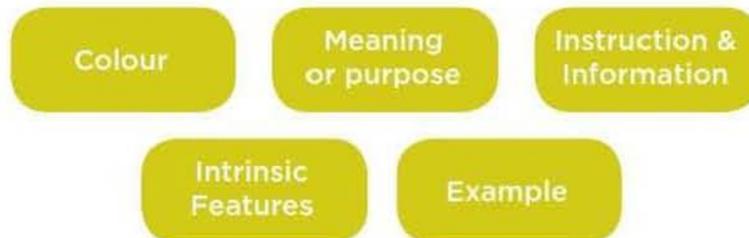
The use of symbols and graphical images is a simple safety system used to convey safety messages at a glance.

Colours and symbols appropriately used can provide ever-present information and warnings of hazards which are essential to safety at work, and in some instances may be independent of language.

A **safety and/or health sign** is **information or instruction** about health and safety at work on a **signboard**, a **colour**, an **illuminated sign** or **acoustic signal**, a **verbal communication** or **hand signal**.

A signboard is a combination of shape, colour and symbol or pictogram made visible by adequate lighting and which may have supplementary text.

Signboards, including fire safety signs, are designed as follows:



COLOUR	MEANING OR PURPOSE	INSTRUCTION & INFORMATION	INTRINSIC FEATURES	EXAMPLE
RED	Prohibition Danger alarm	Dangerous behaviour; stop; shutdown; emergency; cut-out devices; evacuate	Round shape; black pictogram on white background; red edging and diagonal line; red part to be at least 35% of the area of the sign	
YELLOW or AMBER	Warning	Be careful; take precautions; examine	Triangular shape; black pictogram on yellow back- ground with black edging; yellow part to be at least 50% of the area of the sign	
BLUE	Mandatory	Specific behav- iour or action e.g. wear per- sonal protective equipment	Round shape; white picto- gram on blue background; blue part to be at least 50% of the area of the sign	

COLOUR	MEANING OR PURPOSE	INSTRUCTION & INFORMATION	INTRINSIC FEATURES	EXAMPLE
GREEN	Emergency escape; first aid No danger	Doors; exits; escape routes equipment and facilities Return to normal	Rectangular or square shape; white pictogram on green background; green part to be at least 50% of the area of the sign	
RED (fire-fight-ing signs)	Fire fighting equipment	Identification & location	Rectangular or square shape; white pictogram on red background; red part to be at least 50% of the area of the sign	



Where the marking of dangerous locations is deemed necessary (e.g. highlighting the edge of a raised platform or area or restricted heights) yellow & black or red & white stripes may be used.

Regulation includes requirements for work equipment to incorporate any warning or warning devices necessary for reasons of health and safety. This could include the use of **acoustic signals and illuminated signs** instead of conventional signboards.

When acoustic signals or illuminated signs need to be activated (either automatically or in line with other safety arrangements) it is important they remain so for as long as the danger exists.