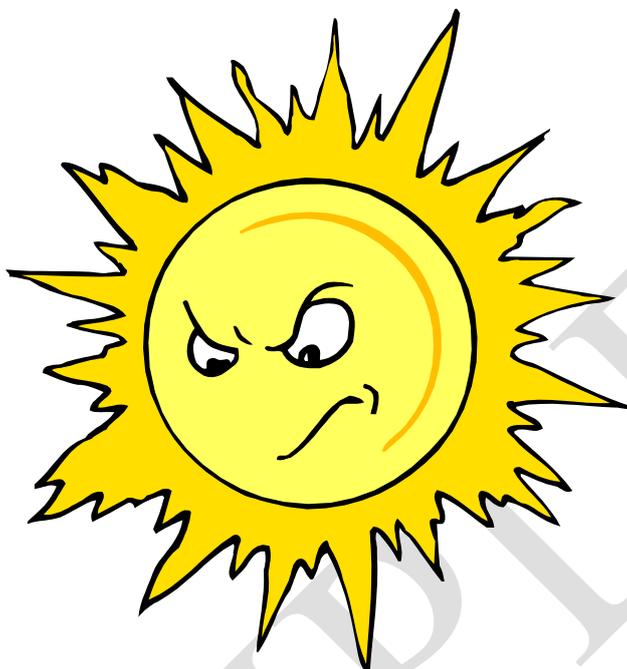


## TOPIC ONE: HAZARD IDENTIFICATION AND CONTROL



### ***Definition of Hazard***

**Hazard:** This is a present or potential danger, visible or not visible. This can apply to:

*substances:* such as chemical products or fumes, such as swimming pool chlorine, photocopying and printer toner or decomposition gases from burning or breakdown of manufactured items, such as PVC.

*biohazards:* this can range from the used tissue contaminated with influenza virus right up to and including human and animal wastes or blood and body substances spills.

*processes:* such as the use of equipment, lifting and manual handling, activities with a higher injury risk

*moving machinery:* anything with moving parts that will allow fingers, hair, jewellery or clothing to become entangled is a hazard and any equipment with moving parts comes in this category

*work conditions:* such as confined spaces or overcrowding, which can cause stress or prevent effective evacuation in an emergency

*environmental conditions:* such a poor lighting, bad climate control or lack of adequate ventilation indoors and weather hazards outdoors

*poor housekeeping:* such as untidiness or blocked access ways, spill and trip hazards and wastes that cause an obstruction or a fire hazard

*human error:* such as deliberate or negligent non-compliance with safety rules, or just plain inattention to details

You have a Duty of Care to identify and report on all hazards.

- If you can fix it simply and by yourself, put things right immediately
- If you need special help, call the right service
- If it is an emergency, notify management and call emergency services

Never try to cope with a hazard or emergency unless you have been trained in the proper response.

Never ignore a hazard as someone else's problem, because it could get worse.

Some hazards must be reported to the authorities, and we will discuss this in Topic 5.



## Controlling hazards

The aim of every workplace should be:

**identify** hazards

**assess** the Hazard Analysis and Critical Control Points (HACCP - pronounced HASSUP)

**minimise** and control the risks that can result from the hazards



The responsibilities of every supervisor, manager or employer are to:

- *identify hazards*: by conducting regular safety checks and workplace audits
- *assess the HACCP*: by evaluating the probable and potential sources of accidents and the points in the work procedures where they are most likely to occur
- *minimise and control risks*: by developing a safety plan and initiating a control hierarchy

The steps in developing a **HACCP** are:

- List all the steps in a work process or activity
- Identify those steps that are inherent risks or which pose known hazards
- Examine each risky or hazardous event and impose a control hierarchy
- Establish a HACCP audit table (see the extract from an HACCP below)
- Develop checklists so that the process can be audited to find out if the controls are working
- Review the HACCP at least once a year
- Review the HACCP if anything about the work process or activity changes

Control of the hazards is achieved by the **Hierarchy of Control**:

- elimination, substitution or isolation of the hazard
- implementing engineering and process solutions
- implementing safe work practices
- using personal protection equipment
- training people in safety and emergency procedures
- purchasing safety and emergency equipment

HACCP FOR GYMNASIUM ENVIRONMENT MONITORING							
Step	Hazard(s)	Control(s)	Control point	Critical limit	Monitoring	Corrective action	Records
Test and top up pool chemicals	<ul style="list-style-type: none"> <li>• pH too high</li> <li>• pH too low</li> <li>• chlorine above/below safe levels</li> </ul>	<ul style="list-style-type: none"> <li>• Use test kits</li> <li>• Check MSDS</li> <li>• Read labels on containers</li> <li>• Record test results</li> </ul>	<ul style="list-style-type: none"> <li>• Twice daily water test in winter</li> <li>• 3 times daily water tests in summer</li> </ul>	<ul style="list-style-type: none"> <li>• Measure all pool chemicals as per checklist</li> </ul>	<ul style="list-style-type: none"> <li>• Supervisor to check daily report records</li> </ul>	<ul style="list-style-type: none"> <li>• Complaints of chlorine related health problems to be reported and acted upon</li> <li>• Fume build up in HAZCHEM storage to be reported</li> </ul>	<ul style="list-style-type: none"> <li>• t pool chemical checklists from MSDA</li> <li>• Pool test record forms</li> </ul>

**There is no such thing as a truly safe workplace or a safe occupation.**

**It is you and your actions that make the workplace a safe place.**

### ***Control of safety and environmental hazards***

Many of the hazards associated with workplace risks can be reduced or eliminated by:

Analysis: Why is this happening to us and how frequently?

Rectification of faults: How can we fix this so it doesn't happen again?

Planning: How can we stop this from happening in the first place?

Resources: What equipment and information do we need to help us reduce the incidence of accidents and injuries?

Purchasing: Can we buy better equipment that is safer to use?

Training: What do we need to know to prevent this happening in the future?

You cannot always eliminate the risks entirely, but if everyone in the workplace acts together to make it happen, the incidence of injury can be reduced.

Even hazards that are present everyday and in high risk situations can be minimised by careful thought and co-operation. You can help in this:

- Make sure that you stay alert to danger and report all risks and hazards immediately
- Never being tempted to 'cut corners' to save time or effort
- Avoid thinking 'it can never happen here'
- Bring up safety and health concerns in staff meetings
- Read the safety literature and safety policy and procedural manuals
- Put the policy and procedural manuals into force by following their requirements to the letters
- Becoming actively involved in maintaining workplace safety as a safety officer or fire warden

There are many agencies who will assist you with information about the safety at work

Most WHS organisations and the National Occupational Health and Safety Commission provide 'potted' versions of the Acts and Regulations which set out the responsibilities of workers and employers.

Ignorance of the law is no defence in law.

If a workplace wants to avoid being fined under the law it must find out as much as possible about safety regulations.

### ***Environmental considerations***

There are several aspects to maintaining the work environment:

- protecting the workplace from toxic events such as fumes, spills and contamination
- protecting the environment from the consequences of environmentally unfriendly work practices such as indiscriminate waste, use of non-biodegradable products
- achieving better workplace resource management and minimising waste-costs through purchasing, use and waste controls
- monitoring and controlling the physical work environment to conserve resources such as power and water
- monitoring and controlling the physical work environment to prevent the 'sick building syndrome' and manage cross infection

While this is not entirely the same as managing workplace health and safety, there are many common areas and the same mechanisms can be used to:

- identify the degree and incidence of risk
- identify and report hazards
- apply controls to minimise risks and hazards
- develop standard operating procedures and policies
- ensure that all staff are made aware of the hazards and control protocols
- investigate accidents and incidents
- report on breaches and incidents



#### **Infection control is important in all workplaces**

There has been a lot of media hype and hysteria about a 'pandemic' of bird flu which will probably never happen, but the impact on business of the common or garden annual winter colds and flu is generally ignored.

Without being alarmist, about a quarter of a million people die each year from ordinary flu worldwide. Many millions get sick and take at least three to five days off to recover.

The costs to workplaces is enormous, as key people are absent and productivity falls. There is nothing that 'cures' the corona virus infection, but there are some common precautions that can reduce the impact on your workplace:

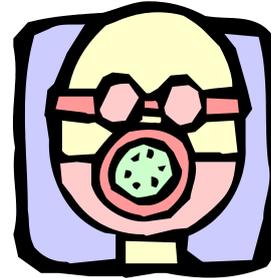
- People should stay away from work when they are infectious and not try to 'soldier on'. Colds and the flu are spread through coughs and sneezes.
- People who are coughing and sneezing should always use disposable tissues and wash their hands before touching anything handled by others
- Consider the use of face masks. It may look a little foolish, but this simple precaution did stop the worldwide spread of SARS.
- Spray rooms with disinfectants regularly and open windows to let in fresh air and sunlight whenever possible. Germs thrive in closed environments.
- Avoid overheating rooms as germs love heat to breed in and people may get chilled when they go outside. Getting chilled lowers the resistance to infection.
- Encourage everyone to have a healthy lifestyle. People who exercise regularly and eat healthy foods do not get sick as frequently or severely as those with bad habits.

### **Control of environmental hazards**

The identification, analysis and control of environmental risks and hazards is carried out using similar methods to those used for OHS risks and hazards. However, the protocols include some important considerations for dealing with the risks and hazards associated with wastes.

The major environmental concerns are:

- Air quality
- Noise pollution
- Ergonomics
- Sustainable resources
- Waste management.



Workplaces are increasingly being asked to consider the environment when purchasing, using or disposing of goods and equipment. There are many things you can and your employer can do to help conserve precious resources and avoid unnecessary pollution.

For example:

- buying biodegradable paper cups for the water cooler instead of polystyrene
- double siding photocopying to save paper, toner and costs
- buying machines and equipment which are power efficient
- reducing the amount of packaging required by products and using recyclable products
- minimising waste and disposing of it appropriately to reduce landfill or pollution
- conserving water in housekeeping use a broom or mop, not a hose, and put plugs in sinks when running water
- installing a timer on boiling water devices to reduce power consumption
- switching off lights, heating and equipment when the building or room is not in use
- running the air conditioning at 24° in summer rather than the chilly 17° that most people set
- running the heating at a comfortable 22° in winter rather than the enervating 26° that slows people down
- prohibit smoking in the workplace
- opening the windows whenever possible to circulate the air and help prevent 'sick building syndrome'
- checking air and sanitising air conditioners to prevent bacterial growth
- use water based chemicals rather than solvent based ones to reduce toxic fumes and wastes
- check that any waste disposal or discharges are not a pollution hazard
- check that the workplace is not causing a noise hazard to workers or the public

**ASSESSMENT RECORD**

Student Name:

Student Number:

Postcode:

e-mail:

Assessor/Trainer:

Telephone:

e-mail:

Page	Assessment item	Date	Pass
9	1. Identification of risks in a matrix		
10	Part A: General safety		
11	Part B: Risks in specific activities		
12	2. Assessing priorities to treat risks		
12	Part A: General safety		
13	Part B: Risks in specific activities		
14	Tie line exercise		
15	3. Hazard identification checklist		
15	Part A: Inspection of premises		
19	Part B: Summary report to management		

Assessor's comments:

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Assessor Signature: \_\_\_\_\_

Student Signature: \_\_\_\_\_

Sign-off date: \_\_\_\_\_

**Activity one: Identify risks in a matrix**

**L = Low      M = Medium      H = High**

Refer to pages 5-6 in your workbook to see an example of how to make up and complete a risk matrix.

**Instructions:**

**Part A:**

Fill in details of four areas of **general safety risks** that occur in your workplace or sport (not equipment or outdoor environment). These should cover 4 major areas where risk may occur.

Think about how you might apply a control hierarchy or treat the risk (use your common sense!). You might not be able to fill in all of the risk analysis section until you have read Topic 2.

Choose one method of assigning priorities from Activity Two and use this to complete the final right hand column.

**Part B:**

Fill in details of four areas of **risks that arise from environmental concerns** (not using equipment or outdoor environment). These should cover a sample of 4 major areas where risk may occur.

Think about how you might apply a control hierarchy or treat the risk (use your common sense!). You may find that you revisit and refine your list as you learn more about control mechanisms.

Choose a different method of assigning priorities from Activity Two from the one you used for Part A, and use this to complete the final right hand column.

**Incidence of risk:** This is the probable number of events that may occur in a given time period.

**Severity of consequences:** This is an analysis of the degree of damage

**Assigning Priorities:** Use the tables in Activity Two to allocate a priority for treating a risk

**Format required for risk analysis tables**

**At least four areas of risk must be identified in each category**

<b>Part A: General safety</b>		<b>Incidence of risk</b>			<b>Severity of Consequences</b>			<b>Risk analysis</b>		
<b>Item</b>	<b>Area of risk (List the area and the sources of the risk )</b>	<b>L</b>	<b>M</b>	<b>H</b>	<b>L</b>	<b>M</b>	<b>H</b>	<b>Consequences</b>	<b>Control measures</b>	<b>Priority</b>
	•							•	•	•

<b>Part B: Environmental</b>		<b>Incidence of risk</b>			<b>Severity of Consequences</b>			<b>Risk analysis</b>		
<b>Item</b>	<b>Area of risk (List the activity and the sources of the risk )</b>	<b>L</b>	<b>M</b>	<b>H</b>	<b>L</b>	<b>M</b>	<b>H</b>	<b>Consequences</b>	<b>Control measures</b>	<b>Priority</b>
	•							•	•	•

**Activity Two: Assessing the priorities to treat risks**

**Part A:** In order to complete the following examples of risk assessment methodologies, you will need to review pages 3-10 of your workbook.

1. Score the priorities for the four areas of **general safety risks** you identified in Activity One using one of the given charts.
2. Identify whether the risk is an everyday hazard, one that happens at regular intervals or whether it is an undefined (unpredictable) event
3. If they are available to you, use the organisation's records of accidents, incidents and reported hazards to find out how often common risks occur.
4. Your completed table should look like this:

Event	Frequency of exposure	Incidence of injury	Chart 1 Score	Chart 2 Score	Must act when?
Lifting heavy waste bins	Everyday hazard	25% of all reported injuries are from manual handling	Number	Number	Immediately

Event	Frequency of exposure	Incidence of injury	Chart 1 Score	Chart 2 Score	Must act when?