

What is an induction?



Types of Induction

- New Employee Induction
- Site Inductions
- Equipment Inductions

What is a Hazard?



What is a Hazard?



A **hazard** is any source of potential damage, harm or adverse health effects on something or someone.

Basically, a hazard can cause harm or adverse effects;

- to individuals
- to property or equipment
- or to the environment

Hazard Factors to Consider

Factor 1:The same hazard can often *affect people differently*.

Factor 2:The *potential* to cause injury/illness can be different for different hazards.

Factor 3:Not all hazards take the *same time* to cause injury/illness.

Factor 4:People often have *different perceptions* of potential hazards and the damage the hazards can cause.



Hazard Classification

Generally hazards can be classified into five groups:

- Physical
- Mechanical
- Chemical
- Biological
- Psychosocial



Physical Hazards

A physical hazard is defined as “A factor within the environment that can harm the body without necessarily touching it. Vibration and noise are examples of physical hazards”.

Physical hazards include but aren't limited to electricity, radiation, pressure, noise, heights and vibration amongst many others

Heat

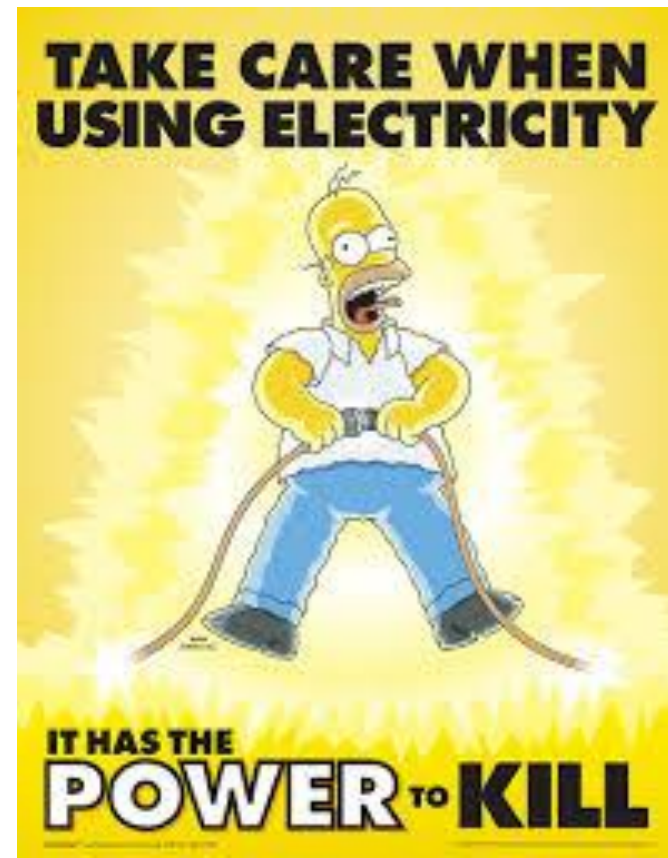
Lighting

Noise

Vibration

Dust

Electricity



Mechanical Hazards

Mechanical hazards are created by the powered operation of apparatus or tools. The applied power may be electrical or human.

Plant

Machinery

Tools

Equipment

Vehicles

Tractors

Mowers

Chainsaws

Quad bikes



Chemical Hazards

Chemicals in the workplace are substances, mixtures and materials that can be classified according to their health and physicochemical risks and dangers.

Health hazards include skin irritants, carcinogens or respiratory sensitisers that have an adverse effect on a worker's health as a result of direct contact with or exposure to the chemical, usually through inhalation, skin contact or ingestion.

Physicochemical hazards generally result from a substance's physical and chemical properties, as is the case with flammable, corrosive, oxidising or explosive substances.

Acids, alkalis

Metals

Non-metals

Gases

Organic compounds

Dusts

Vapours

Herbicides

Insecticides

Fungicides

Pesticides – animal
baits & fumigation

Surfactants

Fertilisers

Soil additives

Herbicide additives



Biological Hazards

Biological hazards are organic substances that pose a threat to the health of humans and other living organisms. Biological hazards include pathogenic micro-organisms, viruses, toxins (from biological sources), spores, fungi and bio-active substances.

Viruses

Pathogenic organisms – disease spreading organisms

Spores

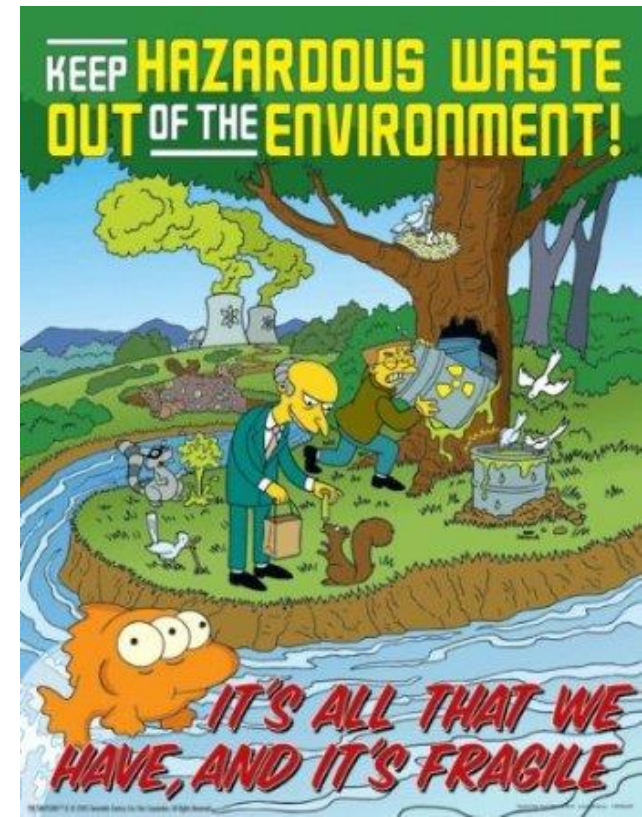
Fungi

Insects – bees, wasps, ants

Snakes

Spiders

Aggressive dogs & people



Psychosocial Hazards

Psychosocial hazards include but aren't limited to stress, violence and other workplace stressors.

Bullying
Workplace harassment
Sexual harassment
Poor design of work or jobs
Poor communication
Poor interpersonal relationships
Aggression
May arise from personal life
Fatigue

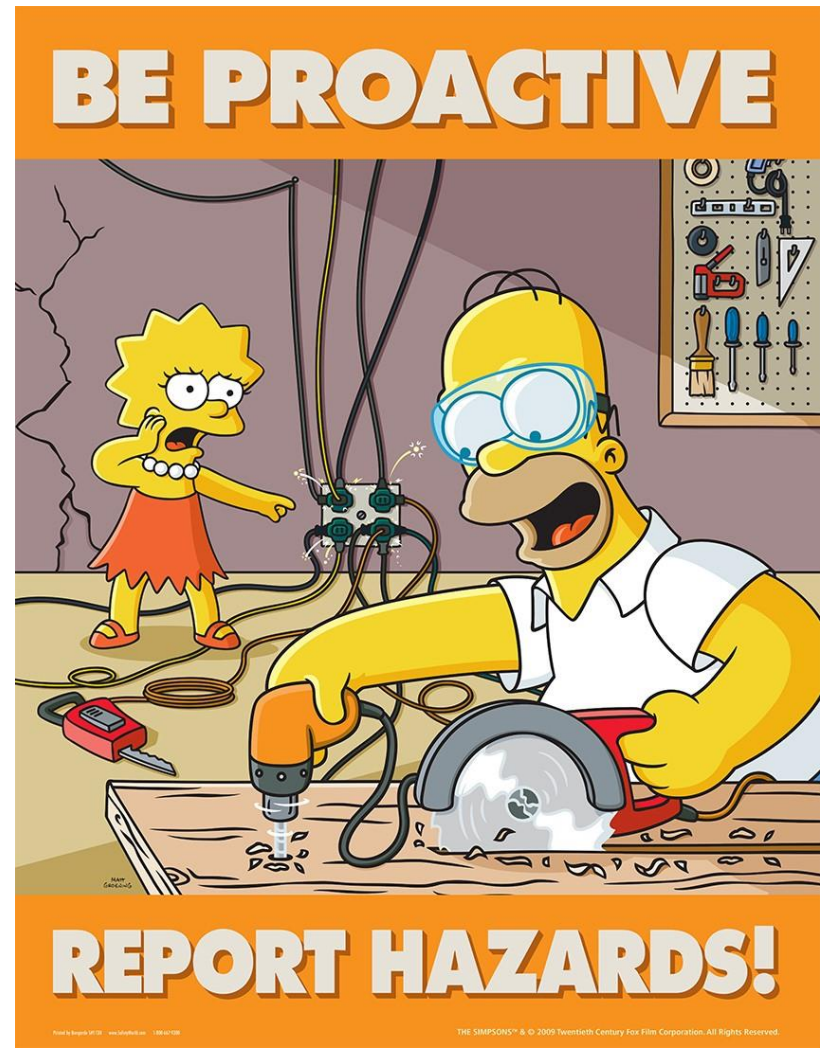


Risks to psychological health due to work should be viewed in the same way as other health and safety risks.

Hazard Sources

Hazards can arise from:

- workplace premises
- work practices and systems
- plant and equipment
- workplace environment.



Hazards Identification

Chemical Ingestion

-Skin/Lungs

Communications

Cuts & Injuries

Electrocution

Eye Damage

Falling Objects

Falls /slopes

Height

Fire

First Aid- Emergency

Response

Induction & Supervision

Manual Handling

Noise

Public Safety

Sharps/Biological

hazards

Traffic

Trip Hazards

Weather Exposure

Wild Things

Working on water

Working in the heat

Fire Danger – Total

Fire Ban

Tools for Hazard Identification

JSA Job Safety Analysis

SWMS Safe Work Methods Statement

RISK ASSESSMENT & CONTROL

F-3 SEEDS Job Safety Analysis Worksheet version 1-Jan 2014

Site Name: Site Supervisor: Signed:

Project: Dates:

Site Location/Address for Emergency Purposes:

SITE INFO SHEET PRESENT & REVIEWED?:

Yes No

WEATHER CONDITION Temp:

Wind- High Medium Low

Employees & signatures:

Employee Name	Signature	Employee Name	Signature

Activity	Hazard/Risks	Risk Control Measures	Discussed
Preparation for work – travelling to and from and accessing site	<input type="checkbox"/> Untrained/uninducted staff	<input type="checkbox"/> Initial employee induction <input type="checkbox"/> task specific induction <input type="checkbox"/> site specific induction	
	<input type="checkbox"/> Unsecured items on vehicle	<input type="checkbox"/> Check toolboxes and other equipment are secured & inaccessible to public	
	<input type="checkbox"/> Manual Handling - loading vehicle	<input type="checkbox"/> Training & Induction <input type="checkbox"/> Correct lifting technique	
	<input type="checkbox"/> Safe access to site – parking of vehicle & pedestrian access, 4WD required.	<input type="checkbox"/> Check jobsheet/site info sheet re access <input type="checkbox"/> Park vehicle safely off road <input type="checkbox"/> appropriate signage <input type="checkbox"/> safe fence/gate/creek crossing as per training	
	<input type="checkbox"/> Traffic hazards – working on roadsides	<input type="checkbox"/> Traffic mgt plan if required <input type="checkbox"/> appropriate signage <input type="checkbox"/> high visibility vests	
Working in the Bush	<input type="checkbox"/> Lack of communication – for emergencies & between staff on site	<input type="checkbox"/> supervision <input type="checkbox"/> work closely together at least 2 people together <input type="checkbox"/> mobile phone <input type="checkbox"/> SPOT for sites with poor reception	
	<input type="checkbox"/> Emergency response	<input type="checkbox"/> First Aider <input type="checkbox"/> First aid kit <input type="checkbox"/> phone reception or SPOT	
	<input type="checkbox"/> Weather Exposure – working in heat/wet/cold, total fire ban days	<input type="checkbox"/> PPE <input type="checkbox"/> Sunscreen <input type="checkbox"/> Monitor Weather Conditions <input type="checkbox"/> Consultation with Crew <input type="checkbox"/> Adequate fluid intake <input type="checkbox"/> Early starts & working in the shade	
	<input type="checkbox"/> Manual Handling	<input type="checkbox"/> Training & Induction <input type="checkbox"/> Use correct lifting technique <input type="checkbox"/> Rotate repetitive activities <input type="checkbox"/> PPE <input type="checkbox"/> Site Inspection	
	<input type="checkbox"/> Eye Damage	<input type="checkbox"/> Safety glasses <input type="checkbox"/> Site Inspection <input type="checkbox"/> First Aider <input type="checkbox"/> First aid kit	
	<input type="checkbox"/> Cuts & Injuries	<input type="checkbox"/> PPE <input type="checkbox"/> Site Inspection <input type="checkbox"/> First Aider <input type="checkbox"/> First aid kit <input type="checkbox"/> tool induction	
	<input type="checkbox"/> Slips, trips & falls – logs, vegetation, holes	<input type="checkbox"/> PPE <input type="checkbox"/> Site Inspection <input type="checkbox"/> First Aider <input type="checkbox"/> First aid kit	

	<input type="checkbox"/> Slopes & heights – working on inclines	<input type="checkbox"/> PPE <input type="checkbox"/> Site Inspection <input type="checkbox"/> First Aider <input type="checkbox"/> First aid kit <input type="checkbox"/> Avoid steep areas <input type="checkbox"/> Duty of care taken	
	<input type="checkbox"/> Falling objects – tree limbs	<input type="checkbox"/> PPE <input type="checkbox"/> Site Inspection <input type="checkbox"/> First Aider <input type="checkbox"/> First aid kit	
	<input type="checkbox"/> Site access – fences, gates & creek crossings	<input type="checkbox"/> Site Inspection <input type="checkbox"/> Check jobsheet/site info sheet re access <input type="checkbox"/> safe fence/gate/creek crossing as per training	
	<input type="checkbox"/> Wild things – bees, wasps, spiders and snakes, poisonous plants	<input type="checkbox"/> PPE <input type="checkbox"/> Site Inspection <input type="checkbox"/> First Aider <input type="checkbox"/> First aid kit <input type="checkbox"/> Carry snake bandages over summer	
	<input type="checkbox"/> Unidentified Cultural heritage	<input type="checkbox"/> Check jobsheet/site info sheet for Cultural Heritage significance <input type="checkbox"/> Do not remove or disturb potential artefacts/sites <input type="checkbox"/> Report to client	
	<input type="checkbox"/> Disease Spread	<input type="checkbox"/> Check jobsheet/site info sheet <input type="checkbox"/> Phytoclean boots, tyres and tools where necessary	
Weed Control	<input type="checkbox"/> Manual Handling	<input type="checkbox"/> Training & Induction <input type="checkbox"/> Use correct lifting technique <input type="checkbox"/> Rotate repetitive activities <input type="checkbox"/> PPE <input type="checkbox"/> Site Inspection	
	<input type="checkbox"/> Use of hand tools	<input type="checkbox"/> Training & Induction <input type="checkbox"/> PPE <input type="checkbox"/> Site Inspection <input type="checkbox"/> First Aider <input type="checkbox"/> First aid kit	
	<input type="checkbox"/> Negative impact on habitat and/or significant species	<input type="checkbox"/> check site info sheet for significant species <input type="checkbox"/> Site Inspection <input type="checkbox"/> Plant Identification training	
	<input type="checkbox"/> Erosion potential	<input type="checkbox"/> Site Inspection <input type="checkbox"/> Training & Induction	
	<input type="checkbox"/> Fire risk/weed burning	<input type="checkbox"/> Site Inspection <input type="checkbox"/> Training & Induction	
	<input type="checkbox"/> Public Safety	<input type="checkbox"/> Site Inspection <input type="checkbox"/> Appropriate Signage	
	– chemical	<input type="checkbox"/> Chemical exposure	<input type="checkbox"/> Training & Induction <input type="checkbox"/> PPE <input type="checkbox"/> Site Inspection <input type="checkbox"/> First Aider <input type="checkbox"/> First aid kit
	<input type="checkbox"/> Chemical Spill Risk	<input type="checkbox"/> Training & Induction <input type="checkbox"/> PPE <input type="checkbox"/> Spill Kit	
- mechanical <i>(brushcutters, chainsaw, hedge trimmer, chipper)</i>	<input type="checkbox"/> Off-target spray damage	<input type="checkbox"/> Training & Induction <input type="checkbox"/> Site Inspection <input type="checkbox"/> check site info sheet for significant species	
	<input type="checkbox"/> noise & vibration	<input type="checkbox"/> Training & Induction <input type="checkbox"/> PPE	
	<input type="checkbox"/> equipment induced injury	<input type="checkbox"/> Training & Induction <input type="checkbox"/> Rotate repetitive activities <input type="checkbox"/> PPE <input type="checkbox"/> Site Inspection	
Revegetation & Seed Collection	<input type="checkbox"/> Manual Handling <input type="checkbox"/> equipment induced injury	<input type="checkbox"/> Training & Induction <input type="checkbox"/> Use correct lifting technique <input type="checkbox"/> Rotate repetitive activities <input type="checkbox"/> PPE <input type="checkbox"/> Site Inspection	
Other			

ALL STAFF MUST BE INDUCTED IN THE USE OF EQUIPMENT & ACTIVITIES FOR THE JOB.

RISK

Risk is the chance or probability that a person will be harmed or experience an adverse health effect if exposed to a hazard. It may also apply to situations with property or equipment loss.



Risk assessment is the process where you:

- identify hazards,
- analyze or evaluate the risk associated with that hazard, and
- determine appropriate ways to eliminate or control the hazard.

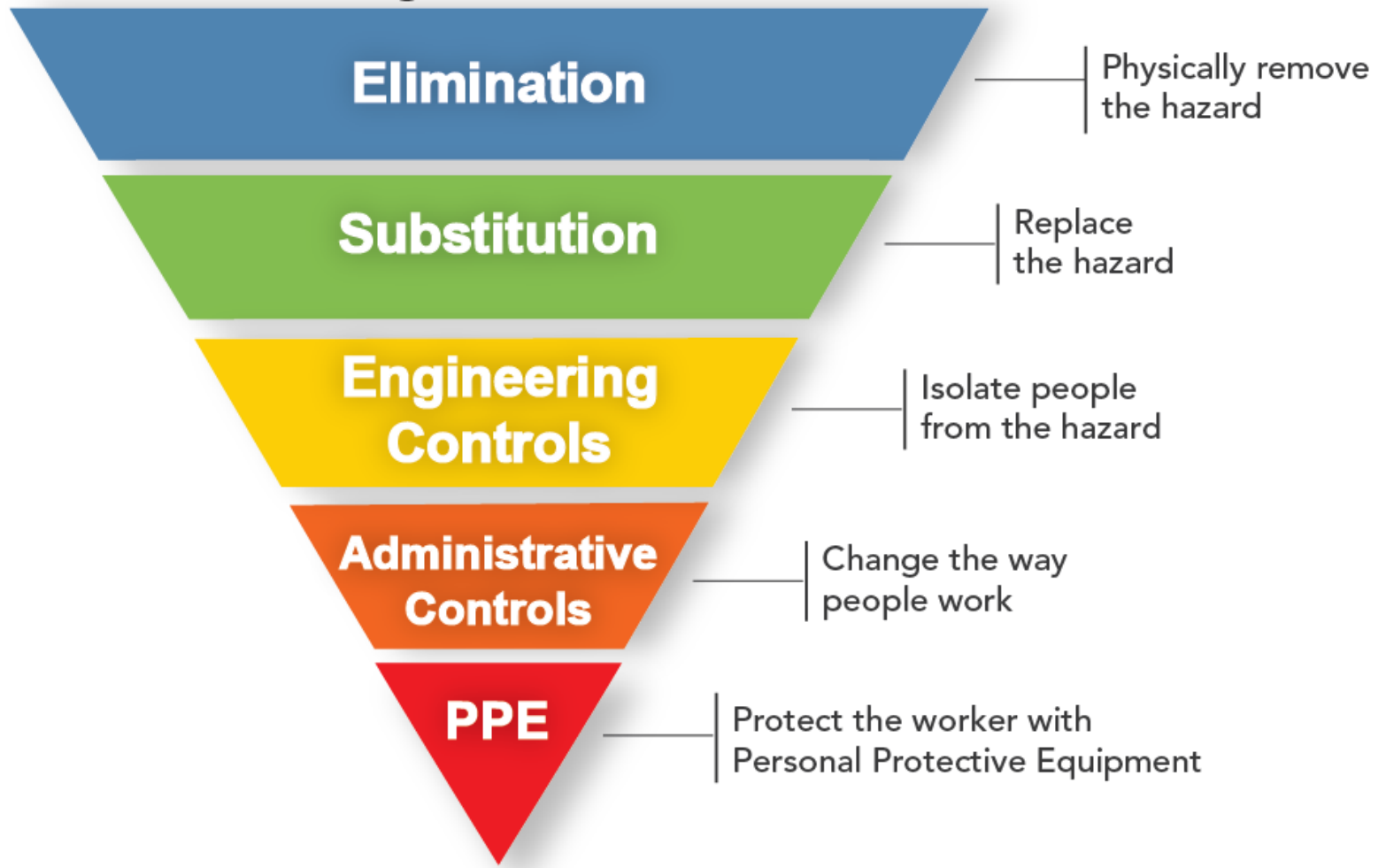
Risk Assessment Video

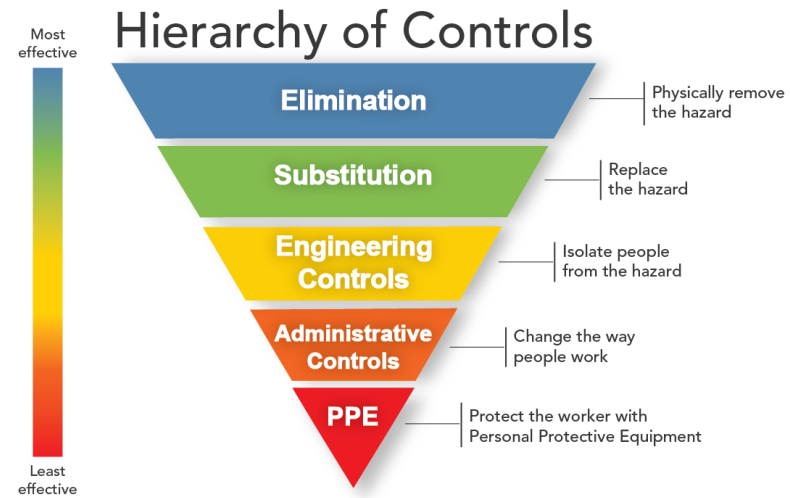
Hierarchy of Controls

Most effective



Least effective



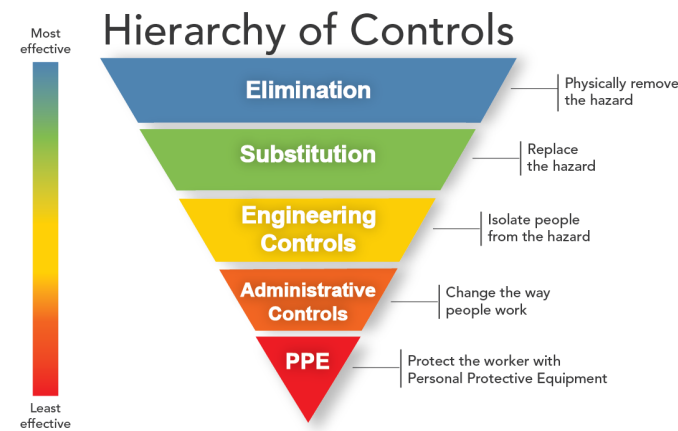


Elimination – the hazard is completely removed

e.g. not working on steep slopes, not using chem where possible

Substitution – replacing a hazardous substance or work process with a non-hazardous or less hazardous option

e.g. choosing low schedule rated chemicals

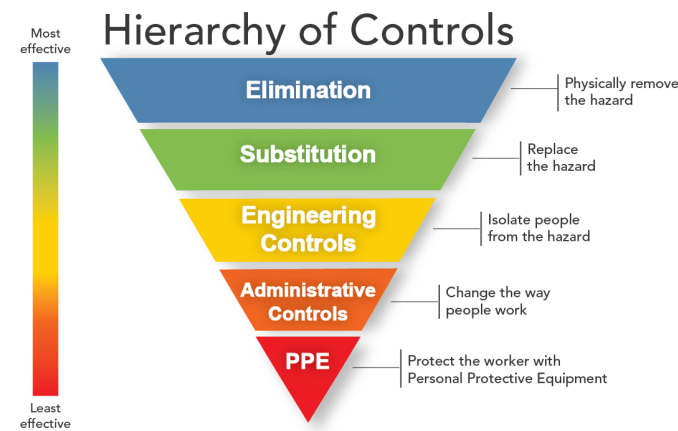


Engineering Controls— an effective option for controlling risk – includes physical modification and improvements to tools and equipment

e.g— improved harnesses on knapsacks – guards on brushcutters

Administrative Controls – introducing work practices which reduce risk. This limits or controls exposure to risk

e.g. Rotating jobs – manuals to follow - safe work procedures – training – signs and labels



Personal Protective Equipment– least effective control measure – consider all other options in the hierarchy of controls first. May be used in combination with other controls

e.g– protective clothing, boots, gloves – use of sunscreen and sunglasses – masks and respirators

Measure of Likelihood

(What is the realistic likelihood of the unwanted event, accident or circumstance occurring)

DESCRIPTION	DESCRIPTOR	LEVEL
May occur only in exceptional circumstances	Rare	A
Could occur at some time	Unlikely	B
Might occur at some time	Possible	C
Will probably occur in most circumstances	Likely	D
Is expected to occur in most circumstances	Almost certain	E

Measure of Consequence or Impact

(What is the most probable consequence should the unwanted event or accident occur)

DESCRIPTION	DESCRIPTOR	LEVEL
No damage or injury, low financial loss	Insignificant	1
Minor damage/injury, on-site release immediately contained, medium financial loss	Minor	2
Moderate damage/medical treatment, on-site release contained with outside assistance, high financial loss	Moderate	3
Extensive damage/injuries, loss of production capability, off-site release with no detrimental effects, major financial loss	Major	4
Death, toxic release off-site with detrimental effect, huge financial loss	Catastrophic	5

Risk Analysis Matrix


(Likelihood X Consequence = Risk Level)

LIKELIHOOD	CONSEQUENCE				
	Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
A = Rare	L	L	M	H	H
B = Unlikely	L	L	M	H	E
C = Possible	L	M	H	E	E
D = Likely	M	H	H	E	E
E = Almost certain	H	H	E	E	E

LEGEND

E	= Extreme risk;	Immediate action needed.
H	= High risk;	Senior management attention needed.
M	= Moderate risk;	Management responsibility must be specified.
L	= Low risk;	Manage by routine procedures.

Priority of Risk Treatment Options



1. Elimination	Complete elimination of the risk.
2. Substitution	Replacement of material, process, substance etc.
3. Engineering	Designing risks out or isolation of risks.
4. Administrative	Adjusting the time or conditions of risk exposure, including training options.
5. Protective Equipment	Provision of protective equipment where other options are not practicable.

Risk Matrix

F-2

SEEDS Safe Work Methods Statements (SWMS)

Site Name:		Site Supervisor		signed	
Project:		Date/s			
Staff name:		Activity/s			Site Location/Address for Emergency Purposes

Activity List the tasks required to perform the activity in the sequence they are carried out.	Hazards/Risks (See over for a list of Hazards) Against each task list the hazards that could cause injury or environmental damage	Likelihood of the unwanted event or circumstance (A-rare to E-almost certain)	Measure of the Consequence of the event 1 insignificant to 5-Catastrophic	Risk Score - Low Moderate High Extreme	Risk control measures List the control measures required to eliminate or minimise the risk of injury arising from the identified hazard	Who is responsible? to implement the control measure identified	Residual likelihood	Residual Consequence	Residual Score

Remember: Each SWMS must be site specific and may change during the job.

Activity List the tasks required to perform the activity in the sequence they are carried out.	Hazards/Risks (See over for a list of Hazards) Against each task list the hazards that could cause injury or environmental damage	Likelihood of the unwanted event or circumstance (A-rare to E-almost certain)	Measure of the Consequence of the event 1 insignificant to 5-Catastrophic	Risk Score – Low Moderate High Extreme	Risk control measures List the control measures required to eliminate or minimise the risk of injury arising from the identified hazard	Who is responsible? to implement the control measure identified	Residual likelihood	Residual Consequence	Residual Score

All staff / Subcontractors must be inducted in the use of equipment and activities for the job. If staff not inducted then do so before the job commences

OH&J Hazards				Environmental Hazards			
Chemical Ingestion -Skin/Lungs		Fire		Traffic		Chemical Spill Risk	
Communications		First Aid- Emergency Response		Trip Hazards		Disease spreading	
Cuts & Injuries		Induction & Supervision		Weather Exposure		Erosion Potential	
Electrocution		Manual Handling		Wild Things		Habitat destruction	
Eye Damage		Noise		Working on water		Off target Spray damage	
Falling Objects		Public Safety		Working in the heat		Weed Spread Risk	
Falls /slopes Height		Sharps/Biological hazards		Fire Danger – Total Fire Ban			

PPE



Personal protective equipment (PPE) is clothing and equipment worn by employees, students, contractors or visitors to protect or shield their bodies from workplace hazards.

Foot protection



Hearing protection



Earplugs

Earmuffs & Accessories

Protective Clothing



Disposable Coveralls



PVC Aprons



Rain Gear



Safety Vests



Welding Gear

Eye protection



Safety Glasses



Visor Accessories



Safety Goggles



Face Shields

Respiratory protection



Disposable
Respirators



ProMesh Masks



Flat Fold Masks



Half Mask Respirator
& Accessories

Head protection



Hard Hats



Bump Caps



Sun Hats



Hard Hat
Accessories

Hand protection



Disposable Gloves



Cotton Gloves



Leather General Purpose Gloves



Riggamate Leather Gloves



Welding Gloves



Stinga Gloves



PVC Gloves



Synthetic Latex Gloves



Synthetic PU Gloves



Synthetic Nitrile Gloves



Synthetic Cut Resistant Gloves



Synthetic Leather Gloves



Chemical Gloves



Glove Accessories