



The Health + Safety Company



RISK MANAGER
CONSULTING
PREQUAL
TRAINING
VR/COMPETENCY
TALENTBANK
SAFEWORX

JOB SAFETY ANALYSIS

UNIT STANDARD 19522

+IMPAC The Health + Safety Company



**We're IMPAC – the Health + Safety Company,
proudly New Zealand owned and operated since 1999.**

As NZ's leading full-service H+S solutions provider, we have unrivalled experience and expertise at getting the best possible H+S outcomes for our clients. We work alongside them to become true partners, to fully diagnose their needs and deliver solutions to keep their teams safe.

We partner



We diagnose



We deliver



We're here to help.

0800 246 722 | contactus@impac.co.nz | www.impac.co.nz

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TRIGGER WARNING

IMPAC is committed to creating an inclusive and safe learning environment. Before we begin, it is essential to recognise that training often involves discussing topics that may be sensitive or evoke emotional responses. It is important to be aware that the content during this course may include discussions of potential hazards, incidents, or scenarios.

If you find any part of this course triggering or if you have concerns, please reach out our team for support or alternatively access the resources available on our website: <https://impac.co.nz/training/student-health-and-wellbeing/>


Remember, if at any point you need to step away or take a break, please do so your wellbeing is our priority.



TIPS

This handout is designed to go with an IMPAC training experience. You will need to refer to it during the training. It is yours to take away and also makes a great reference guide back in the workplace.

Please feel free to add your own notes to this handout.

As you go through this handout with your trainer use a  highlighter or underline important words as you are reading. This will make it easier to find key information later.

Use a different colour to highlight or underline words you do not understand or are unsure about, this will make it easier to find them later so that you can ask someone, or look them up.



IMPAC POLICIES

The following IMPAC's policies and process are available in IMPAC's Learner Handbook

- + Complaints process
- + NZQA Assessment process
- + Appeals process.

The IMPAC Learner Handbook is available to download on IMPAC's website, Learning Management System and can be emailed on request.



JOB SAFETY ANALYSIS COURSE

Job Safety Analysis (JSA) is a very useful tool anyone can use to systematically identify, assess and control hazards associated with jobs we perform at work. A JSA is also a multi-purpose tool; it is used to improve job safety and also efficiency, and end-product quality. It's used to standardise work methods and to capture the methods used by skilled and experienced workers for training purposes as well.

This training required towards the achievement of:

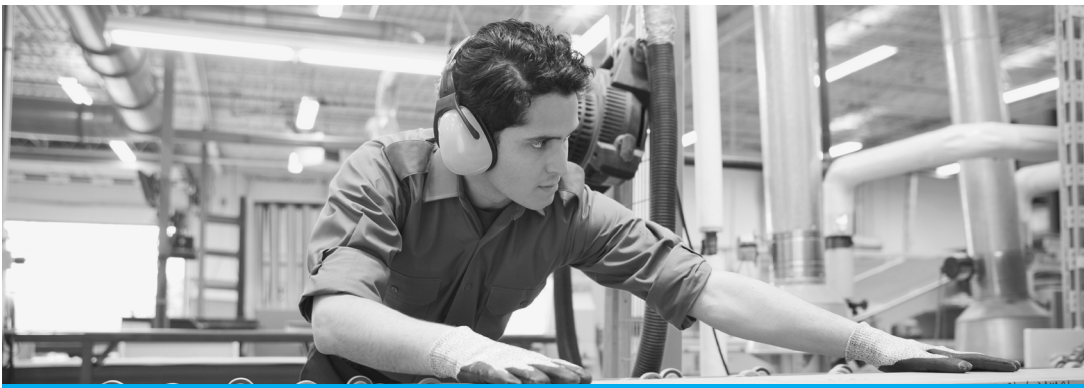
- + **NZQA Unit Standard 19522** — Undertake job safety analysis

As an NZQA candidate, you are expected to:

- + Participate fully in the training session, discussions and activities
- + Share your knowledge and experience
- + Complete all assessment activities as notified by your trainer
- + Take responsibility for your own learning needs
- + Discuss with your trainer any assistance you may need.

If you are being disruptive, your trainer will advise you that your behaviour is disrupting learning for other trainees.

If the behaviour continues to disrupt or disturb others, your trainer will ask you to leave the course, and your employer will be notified immediately.



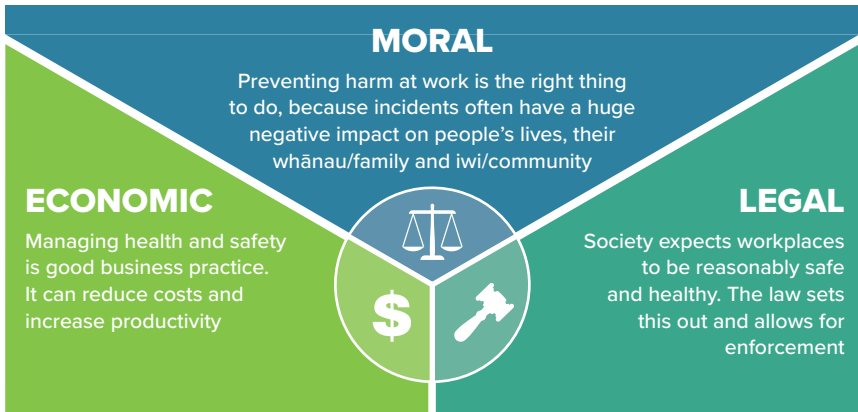
WHY MANAGE HEALTH AND SAFETY?

What you need to know:

- ✦ The key moral, economic and legal reasons for managing health and safety at work

REASONS FOR MANAGING HEALTH AND SAFETY AT WORK

There are key reasons why health and safety management is important in your workplace. These are:



Not harming other people is a basic human value we can all agree on. In the workplace, there is a moral duty of care for management and business owners towards workers, and for workers towards themselves and others.

Safe and healthy work is good business management. It leads to a good reputation, a productive workforce, innovation and profitability. Incidents at work can be very expensive. There are financial costs to the injured person, their employer, and to society as a whole.

Societies make laws to set shared boundaries about what is acceptable and what is not. Health and safety laws are no different in that respect; they set out minimum requirements for workplaces to get the balance right between getting things done, and keeping workers safe and healthy.



HAZARD OVERVIEW

What you need to know:

- + Hazards may cause harm to people, and this harm can be acute and chronic, catastrophic and both physical &/or psychological
- + Hazards may cause harm to the environment, through physical damage, pollution and unsustainable use of resources
- + Hazards may cause harm to business, through damage to assets and resources, disruption to production, loss of market-share and reputation, increased costs and insurance premiums.

KEY TERMS

Effective Job Safety Analysis starts with a good understanding of hazards, risk and harm.



HAZARDS

Hazards are situations or things that have the potential to cause harm to people, the environment or business. Hazards at work may include many things e.g. noisy machinery; a moving forklift; a toxic chemical; electricity; gravity; radiation; a repetitive job; an angry and abusive person, or an infectious disease.



HARM

Harm refers to the potential negative consequences or adverse effects that may result from a particular risk materialising. Useful words to use when talking about harm are:

- + **Acute** = harm that happens immediately
- + **Chronic** = harm that happens gradually
- + **Catastrophic** = harm (either acute or chronic) that results in death or permanent disability



EVENT

An event is where the situation or thing gets out of control and people or other things are exposed to harm.



RISK

Workplace health and safety risk is the possibility that harm might occur when exposed to a hazard. When talking about risk it's useful to describe a specific event in mind where a person, environment or business can be exposed to a hazard, potentially resulting in harm. To prioritise risks or choose between options, the level of risk can be estimated by analysing two things; the severity of consequence(s) and the likelihood of the consequences occurring.



RISK FACTORS

A risk factor is something that affects the likelihood of harm, and/or the severity of consequences. Examples can be distraction, fatigue, bad weather, poor visibility, inappropriate equipment, time pressure, lack of information, and how much energy (speed, mass, height and so on).



RISK CONTROLS







Risk controls are the resources put in place to manage a risk. They can be many things. For example: physical barriers, technology, work methods, information, and protective equipment and clothing.



HAZARD CATEGORIES

Using hazard categories when identifying hazards has a number of clear benefits:

- + **Thorough** - it prompts you to think about a wide range of potential hazard types, some of which may not be immediately obvious in a work environment.
- + **Consistent** - It can improve the quality of hazard identification, even when different people are involved.
- + **Systematic** - it provides a concise and focused process to follow, which can be audited, and guards against a 'scattergun' approach to identifying hazards.

	Mechanical / stored energy – Vehicles, machinery, electricity, pressure, heat, height
	Chemical – Irritant, corrosive, toxic or carcinogenic substances
	Environmental – Light, noise, dust, extremes of temperature, radiation
	Biological – Bacteria, viruses, fungi, insects, mammals, fish, birds
	Ergonomic – Interface between human and the task; manual handling, repetitive movements
	Psychosocial – Bullying, harassment, violence and deadlines



MECHANICAL / STORED ENERGY

WORK EQUIPMENT HAZARDS

Work equipment includes any machinery, appliance, apparatus, tool or installation used at work.

WORK EQUIPMENT	EXAMPLES
Hand tools	Hammers, knives, handsaws, meat cleavers, stapler.
Power tools	Drills, sanders, jig saws, powered screwdrivers.
Machinery	Single machines, eg power presses, circular saws, photocopiers, dumper trucks, paper shredder. Several machines connected together, eg a food production line.
Apparatus	Laboratory apparatus such as Bunsen Burners.
Lifting equipment	Hoists, fork-lift trucks, Elevating Work Platforms (EWP), lifting slings.
Office equipment	Computers, printers, shredders, scanners, mobile phones.
Other	Ladders, pressure water cleaners, steam cleaner, water blaster.

Work equipment can be a source of harm when:

- ✚ It is not suitable for the job, the working conditions or the operator
- ✚ It has or produces inherent dangerous features— eg blades, moving parts, electricity, heat, hazardous substances, flying particles etc.



- + It is not maintained in good working order, inspected or examined
- + Information, training and supervision is not provided
- + It is operated in dangerous conditions—eg confined space, flammable atmosphere, low lighting, too hot/cold etc.

MECHANICAL HANDLING

Mechanical handling vehicles and equipment is used extensively in organisations, from supermarkets to quarries. They commonly include:

- 1 Conveyors
- 2 Cranes
- 3 Hoists
- 4 Fork lift trucks
- 5 Road haulage trucks.

These can cause injuries such as crushing, trapping, fractures and even fatalities, as well as damage to buildings and property. They occur when handling equipment fails because of problems with design, use, lack of maintenance or poor task planning.

WORK PROCESSES/TASKS

A process is a series of stages needed to convert raw materials into products. Many processes in the workplace may give rise to sources of harm. Most processes use energy sources (temperature, pressure, radiation, electricity) or equipment to ‘process’ a product. The possibility exists for fires, explosions, radiation, releases of flammable or toxic liquids, vapours, gases or dusts, or contact with dangerous moving parts.



CHEMICAL

HAZARDOUS SUBSTANCES

Various chemical substances can attack the body and its organs in different ways, causing both acute and chronic ill-health effects.

Some examples are:

- + **Carbon monoxide** - attacks the cardiovascular and respiratory system by blocking the uptake of oxygen into the blood in the lungs
- + **Heavy metals such as lead and mercury** - damage the nervous system
- + **Hydrochloric acid** - attacks the layers of the skin by removing fatty acids and reacting exothermically with the water in the skin
- + **Chlorine** - if inhaled can cause severe irritation of the lungs.



ENVIRONMENTAL

RADIATION

Radiation comes in many forms. Light from the sun is the most common source of radiation, but other heat and light sources such as welding arcs and furnaces also give off radiation. Less common but potentially more dangerous are radioactive substances such as radon gas and uranium. Radiation can cause skin burns, eye damage, and damage to cells resulting in cancer.

WORKPLACE CONDITIONS

Conditions in the workplace can be a source of harm. There are several key areas which can give rise to hazards.

- + **Welfare facilities** (toilets, washing, eating and changing facilities, clothing storage, seating, and rest areas) are a basic need for general physical and mental health and wellbeing.
- + **Environmental conditions** (temperature, ventilation, lighting including emergency lighting, room dimensions suitability of workstations and seating; and exposure to dust and outdoor weather conditions) can have an impact on physical and mental health.
- + **General design and condition of the workplace** (windows, doors, gates, escalators, stairs, obstructions and slipping and tripping hazards, falls from heights, dangerous substances storage, falling objects) can give rise to many sources of harm.
- + **Housekeeping** (maintenance of workplace, equipment and facilities, cleanliness, removal of waste materials) can cause slip and trips, electrical hazards, dusty air, etc.



BIOLOGICAL

BIOLOGICAL ORGANISMS

These are (biological) organisms and include bacteria, fungi/mold, and viruses. They are often present in the natural environment, in contaminated water, and in other animals (including humans).

Some examples are:

- + **Mold spores** - cause inflammation and damage inside the lungs
- + **Hepatitis virus** - damages the liver
- + **Leptospirosis** - caused by bacteria which attack the kidneys
- + **Legionella** - disease caused by bacteria which attack the lungs.



ERGONOMIC

MANUAL HANDLING

‘Transporting or supporting of loads by hand or bodily force’. This includes lifting, lowering, pulling, pushing and carrying of:

- + Inanimate objects, eg bags, parcels, boxes
- + Live objects, eg people, animals.

Manual handling can be a source of several types of harm. Manual handling injuries can be classified as follows:

- + **External injuries:** Cuts, bruises, abrasions and crush injuries to fingers, hands, forearms, ankles and feet.
- + **Internal injuries:** Muscle and ligament strains and tears, hernias, knee, ankle and shoulder injuries.
- + **Cumulative chronic conditions:** Slipped disc (prolapsed inter-vertebral disc), tenosynovitis (inflammation of the tendon sheath).



PSYCHOSOCIAL

PSYCHO-SOCIAL HAZARDS

When referring to work, psychosocial hazards refer to the design and management of work and its social organisational context that may have the potential for causing mental or physical harm.¹

Examples of psycho-social hazard are:

- + Bullying
- + Harassment
- + Violence
- + Deadlines.

Example of health outcomes from psycho-social hazards are:

- + Stress
- + Depression
- + Anxiety
- + Sleep disorder
- + Suicidal ideation.

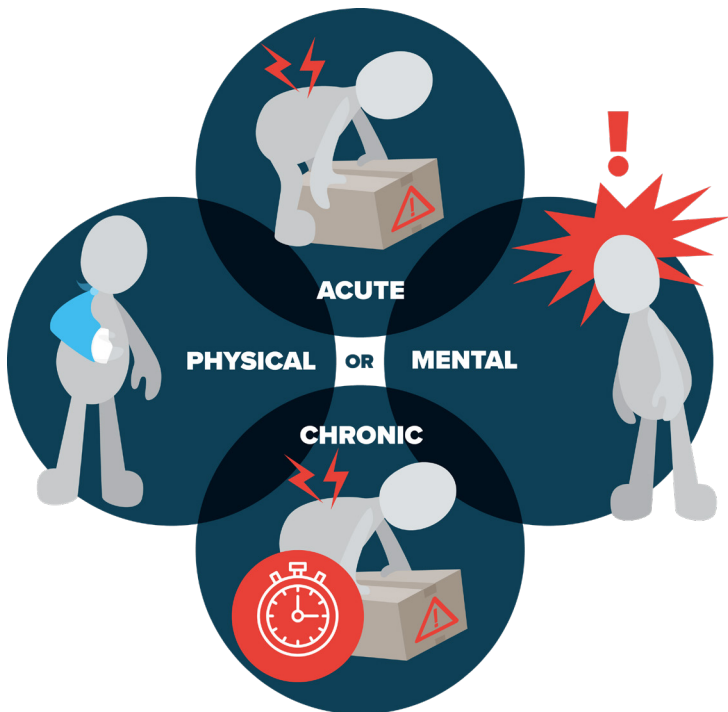
¹ WorkSafe New Zealand

HARM

Harm means death, injury and illness, and includes both physical and psychological harm.

HARM TO PEOPLE

When we think about people being harmed at work, it is usually physical injuries that come to mind—cuts, bruises, burns etc. It is important to remember that people can also suffer illness and psychological (mental) harm as a consequence of exposure to hazards in the workplace.





PHYSICAL HARM

Physical harm means the actual physical damage caused by the hazard to the body. It is often very obvious, like a broken bone or cut.

The harm can also be hidden in many cases:

- + Loud noise can gradually cause damage to the internal parts of the ear
- + An occupational disease like hepatitis may cause liver damage
- + Bad posture and repetitive heavy lifting can damage ligaments, tendons and muscles
- + Psychological stress causes various natural physical responses (fight or flight) but your body can be damaged physically if this happens too often.
- + Depending on the severity of the physical damage, a person's abilities and quality of life may be affected.



MENTAL HARM

Mental harm can be more difficult to diagnose, but the effects on a person's abilities and quality of life may be just as devastating as the effects of physical harm.

- + Examples of mental harm:
 - + Depressed
 - + Traumatised
 - + Nervous
 - + Anxious
 - + Irritable
 - + Loss of confidence and self-esteem.

Hazards which may cause mental harm could be:

- + An uncomfortable working environment (eg too hot/cold, wet, windy, noisy, distracting, dirty, dingy, poorly lit)
- + The constant threat of hazards which may cause severe injury
- + Traumatic experiences
- + Bullying and harassment by colleagues, managers and/or customers
- + Worry and uncertainty about what is expected from the role
- + Work that is repetitive, lacks challenge and holds no hope for development.



ACUTE HARM

When we talk about 'acute' harm, we tend to mean effects that are felt immediately and are obviously the result of a particular hazard. The illness or injury usually occurs after one exposure.

Some examples are:

- + Lifting a heavy box and immediately feeling a pain
- + Cutting your hand on a blade
- + Feeling traumatised immediately after being part of an emergency situation.

'Acute' can also mean the early stages of an injury. Treatment is usually far more effective when it is given as soon as possible, while the injury is still in the 'acute' stage.



CHRONIC HARM

Chronic harm can mean injury or ill-health effects which have gradually developed or worsened over time. The injury or illness usually occurs after a number of exposures to the hazard, but sometimes chronic illness/injury can occur after one exposure. Acute injuries can become chronic injuries/illnesses if not properly treated. The damage becomes well established and may cause other complications. It is often difficult to spot the signs of some types of harm until they have reached the 'chronic' stage.

Some examples are:

- + Musculoskeletal injuries which are the cumulative result of many months or years of small strains and sprains
- + Lung diseases caused by breathing in very fine dusts or fibres over many years
- + Traumatic experiences and excessive work pressure over a long period of time gradually affecting a person's mental health.

CATASTROPHIC HARM

This is harm that results in death or has a permanent, irreversible impacts on a person's quality of life.

Examples are:

- + Losing a limb
- + Losing a sensory ability such as sight or hearing.



HARM TO THE ENVIRONMENT

WHY PROTECT THE ENVIRONMENT?

The 'environment' is the sum of all the living and non-living elements of the world which surrounds us. We depend on the environment on one way or another for everything we need to live:

- + Air to breathe
- + Water to drink
- + Food to eat
- + Space to live and move
- + Natural landscapes to enjoy.

ENVIRONMENTAL SUSTAINABILITY

Environmental sustainability is based on the concept that we should not use and change the environment in ways that might negatively affect future generations. In other words, we should protect the environment so that our children and their children can enjoy and benefit from the environment in the same ways we do now.

In short, sustainability is about:



QUOTE

"Meeting the needs of today without adversely impacting the needs of tomorrow."

Ministry for the environment



ENVIRONMENTAL IMPACTS

The effects a company has on the environment can be direct and indirect:

- + Direct impacts: Site clearance for building, chimney and flue emissions, discharges to drains and rivers, solid waste sent to landfill, energy consumption.
- + Indirect impacts: Using non-renewable raw materials, using parts and components which cause pollution in their manufacture, end products and packaging which do not last long, cannot be reused or recycled, or use excessive energy during their lifetime.

POLLUTION

Pollution is anything introduced into an environment that causes harm, damage or some negative change. Pollution can take the form of chemical substances or energy, such as noise, heat, or light.

Chemical substances have many different forms – solid, liquid, gas, dust, vapour, mist, smoke. The type of chemical, as well as its physical form, will determine what part of the environment is damaged the most:

- + Water pollution (including surface water, streams, rivers, groundwater and the sea)
- + Air pollution (any substance released into the atmosphere)
- + Land pollution (substances which damage soil and ground conditions).

We also talk about noise and light pollution from cities, towns, roads and industrial areas. These reduce our enjoyment of land, impact on quality of life, and may also have a negative impact on plant and animal life.



PHYSICAL DAMAGE

Physical damage to the environment can be caused by:

- + Deforestation—resulting in soil erosion
- + Open-cast mining
- + Construction and infrastructure—land is cleared for roads, railways and buildings.

OVERUSE OF RESOURCES

Overuse of resources—many companies (and homes) use up more resources than they need to. These wasted resources are often a result of inefficiency and poor design, planning and organisation. Energy and power can be wasted, as well as raw materials and any products or substances which are damaged or don't meet quality requirements.

There are many examples:

- + Buildings which are not insulated use more energy to heat
- + Transporting raw materials and finished products long distances uses lots of fuel
- + Processes may waste energy that could be re-used elsewhere
- + End-products that are not designed to be energy-efficient.



HARM TO BUSINESS

The business impact of workplace hazards can be significant. The most important examples are:

+ Asset loss

Hazards may destroy or damage buildings, vehicles, plant and equipment.

+ Lost production

A serious injury may result in a production line being shut down for several days until an investigation is completed.

+ Loss of resources

both people and raw materials or parts may be harmed or lost in an incident. Some resources can be replaced, others are irreplaceable.

+ Non-compliance with legal or client requirements

eg prohibition notices and fines, poor audit scores

+ Market share

eg damage to reputation, production delays or quality issues can result in lost contracts and unhappy customers.

+ Insurance

eg a failed audit or bad incident can give an insurance provider good reason to raise premiums.



DIRECT AND INDIRECT HARM TO BUSINESS

Hazards can cause both direct and indirect harm to business. The indirect impacts are often difficult to fully cost and can be significant.

DIRECT HARM

Hazards may cause damage directly to the physical assets of a company:

- + Tools, equipment, vehicles
- + Raw materials, components, and finished products
- + Buildings, roadways, and other fixed plant.

Examples are fires, explosions, flood, and also vehicle collisions, and building collapses.

INDIRECT HARM

Any hazard which causes harm to people and/or the environment is likely to also become a source of harm to the organisation indirectly, through:

- + Adverse publicity which may harm both business reputation and profitability
- + Fines and legal costs
- + Recruitment and retraining costs
- + Higher insurance premiums
- + Loss of market share and position as a preferred supplier/provider
- + Lost production time
- + Bad feelings and morale from workers, the public and clients.



THE HEALTH AND SAFETY AT WORK ACT 2015

What you need to know:

- + The legal objectives and compliance duties related to job safety analysis
- + How the concept of 'all reasonably practicable steps' impacts on applying hazard control measures in the workplace.



THE LEGAL FRAMEWORK FOR HEALTH AND SAFETY

Health and safety law in New Zealand is what we call 'goal setting' legislation. It does not set out lots of highly prescriptive requirements but rather defines broad duties and duty holders. The key principles come from International Labour Organisation Conventions, which New Zealand has signed up to.

GENERAL

INTERNATIONAL LABOUR ORGANISATION

Broad principles and a framework for setting up national health and safety law.

HEALTH AND SAFETY AT WORK ACT 2015

Enacted by Parliament, applies to all workplaces.
Legally enforceable, with general duties and duty holders.

REGULATIONS (VARIOUS)

Made under the Health and Safety at Work Act, apply to all or most workplaces.
Legally enforceable, with specific duties and duty holders.

APPROVED CODES OF PRACTICE (VARIOUS)

Developed by WorkSafe NZ and approved by government minister.
Accepted in court as means of compliance for specific types of work.

GUIDELINES (VARIOUS)

Developed by WorkSafe NZ and/or Industry Body.
Accepted in court as means of compliance in specific situations.

SPECIFIC

STANDARDS (VARIOUS)

Developed by standard setting bodies e.g. Standards NZ, Standards Australia, ISO etc. Specific and detailed requirements for conformance to a standard.



THE HEALTH AND SAFETY AT WORK ACT 2015

The Health and Safety at Work Act (HSW Act) 2015 is the key work health and safety law in New Zealand and covers nearly all work and workplaces. The HSW Act came into effect from the 4 April 2016.

PURPOSE OF THE HSW ACT

The main purpose of this Act is to provide for a balanced framework to secure the health and safety of workers and workplaces by:

- 1 Protecting workers and other persons against harm
- 2 Providing for fair and effective workplace representation, consultation, and co-operation
- 3 Encouraging unions and organisations to take a constructive role in making work safer and healthier
- 4 Promoting the provision of advice, information, education, and training
- 5 Securing compliance with this Act through effective and appropriate compliance and enforcement measures
- 6 Ensuring appropriate scrutiny and review of actions taken by persons performing functions or exercising powers under this Act
- 7 Providing a framework for continuous improvement and progressively higher standards of work health and safety.



KEY POINT

The HSW Act is underpinned by the principle that workers and other persons should be given the highest level of protection against harm to their health, safety, and welfare from hazards and risks arising from work.



SOURCES OF INFORMATION ABOUT HAZARDS AND RISKS

INFORMATION FROM INSIDE THE ORGANISATION (INTERNAL)

There is a lot of important information about hazards and risks a worker can request from inside your organisation.

EXAMPLES OF DATA SOURCES HOW THEY COULD BE USED

WORKERS WHO KNOW THE WORK	Ask about workers' concerns, experiences, challenges and ideas for improvement
HEALTH AND SAFETY RISK REGISTER	Find out if the organisation has already identified the hazard and risk and identified risk controls
HEALTH AND SAFETY COMMITTEE MINUTES	See if the issue has been raised before and what was done (or not done) about it
INSPECTION AND AUDIT REPORTS	Find out if the issue has been picked up before and if recommendations were made
INCIDENT REGISTER AND INVESTIGATIONS	Identify if there have been similar incidents and near misses in the past, and what was learnt
TRAINING RECORDS	See who is trained, certified or qualified to do particular work or use specific equipment



INFORMATION FROM OUTSIDE THE ORGANISATION (EXTERNAL)

There is also a lot of information outside of your organisation about hazards and risks that anyone can access, as long as you know how to look for it.

EXAMPLES OF DATA SOURCES HOW THEY COULD BE USED

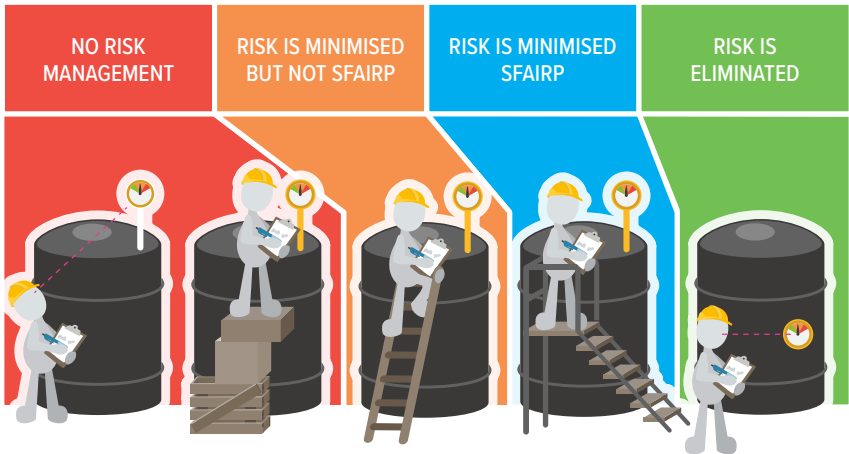
<p>THE HSW ACT AND REGULATIONS</p>	<p>Identify particular legal requirements and duty holders</p>
<p>WORKSAFE PUBLICATIONS</p>	<p>Understand what is good practice for managing specific health and safety risks</p>
<p>NZ AND AUSTRALIAN STANDARDS</p>	<p>Find out specific and detailed requirements that certain work or equipment should comply with</p>
<p>INDUSTRY PUBLICATIONS</p>	<p>Understand the current industry good practice and technology for particular work</p>
<p>SAFETY DATA SHEETS</p>	<p>Find specific information about the hazardous properties and risk control measures for a particular hazardous substance or chemical</p>
<p>MANUFACTURER AND SUPPLIER INFORMATION</p>	<p>Find specific information about the hazards, risks, precautions, use, maintenance, cleaning, operator skills etc for an item of plant or equipment</p>

HSW ACT DUTY TO MANAGE RISKS s30

Where risk management duties are set out, the duty holder (PCBU) is required:

- 1 To eliminate risks to health and safety, so far as is reasonably practicable; and
- 2 If it is not reasonably practicable to eliminate risks to health and safety, to minimise those risks so far as is reasonably practicable.

A duty holder is expected to manage risks to the extent to which they have, or would reasonably be expected to have, the ability to influence and control the matter to which the risks relate.





REASONABLY PRACTICABLE s22

The term “reasonably practicable” appears throughout the HSW Act and is used to qualify duties to ensure health and safety at work:

- + Something is ‘practicable’ if it is possible or capable of being done
- + ‘Reasonably’ means that it should also make sense - it should ‘stand to reason’.

Working out what is reasonably practicable means looking at the:

- 1 Likelihood of the risk happening in your situation
- 2 Degree of harm that might result
- 3 Knowledge about the hazard, risk, and control measures
- 4 Availability and suitability of control measures in your situation
- 5 Cost of control measures to get rid of or minimise the risk.

The upshot is that duty holders are expected to do what a reasonable organisation or person would do in the situation.



KEY POINT

KEEP UP TO DATE WITH GOOD PRACTICE

The best way to work out ‘reasonably practicable’ risk control is to look at what the relevant approved codes of practice, guidelines and standards say. Part of the idea of ‘reasonably practicable’ is keeping up to date with good practice in your industry, as well as what the regulator expects.

GETTING THE BALANCE RIGHT

If something is possible to do, but the **time, cost, effort** and trouble to do it is a lot more (a gross disproportion) than the benefits to be gained in managing the risk, then it is probably not ‘reasonably practicable’ to do, and so not legally required.



COST

RISK



COST

RISK



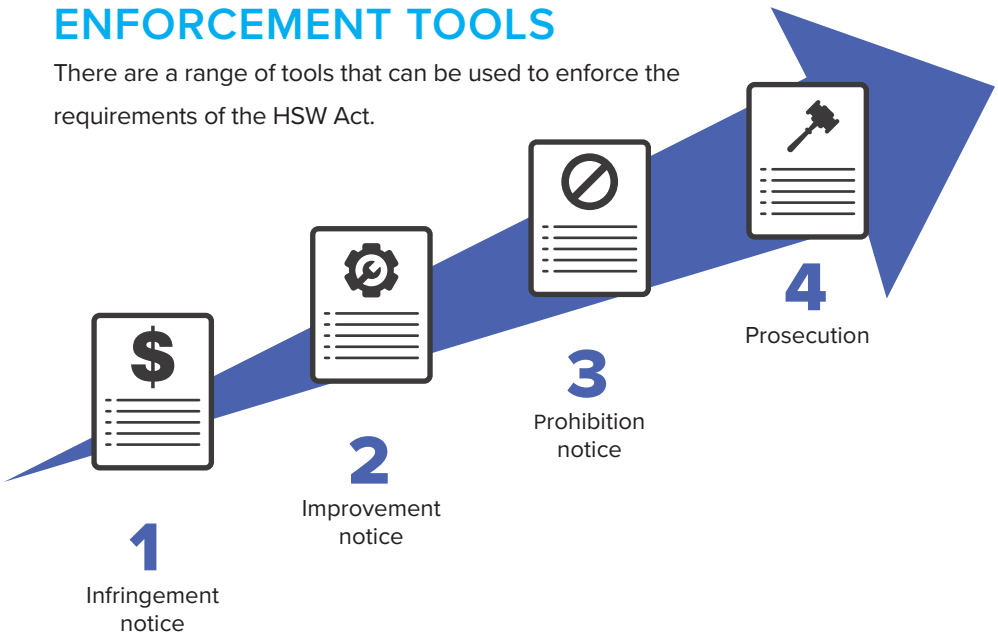
EXAMPLE

Dave’s Lumber Ltd. has workers, delivery trucks, wholesalers and customers regularly driving in and out of the site. There have been some near misses between vehicles and pedestrians. The site manager looks up site traffic management guidance on the WorkSafe website. The management team decide to mark out a one-way traffic route, loading zones, parking areas, walkways as well as place speed limit and ‘Enter’ and ‘Exit’ signs. They then also install a boom gate and security guard hut, which is something not covered in the guidance, but good to reduce the risk of theft. While Dave’s Lumber has definitely met its duty, the security guard hut is probably beyond what is reasonably practicable under the Health and Safety at Work Act.



ENFORCEMENT TOOLS

There are a range of tools that can be used to enforce the requirements of the HSW Act.



OTHER ENFORCEMENT TOOLS:

- + Non-disturbance orders
- + Enforceable undertakings
- + Adverse publicity orders
- + Work project orders
- + Cost recovery



KEY POINT

Infringement offences and fees are outlined in the Health and Safety at Work (Infringement Offences and Fees) Regulations 2016



FINES/IMPRISONMENT ON CONVICTION

The HSW Act sets a range of levels of fines, and in some cases, imprisonment, for duty holders on conviction.



PCBU

INDIVIDUAL WHO IS
PCBU OR OFFICER
OF PCBU

INDIVIDUAL WHO
IS NOT PCBU OR
OFFICER

Reckless conduct:
risk of death,
serious illness or
injury

up to
\$3m

up to **\$600k** and/or
5 years prison

up to **\$300k** and/or
5 years prison



s47

Failure to comply
with duty, exposes
individual to risk
of death, serious
illness or injury

up to
\$1.5m

up to **\$300k**

up to **\$150k**



s48

Failing to comply
with specific
health and safety
duty

up to
\$500k

up to **\$100k**

up to **\$50k**



s49

Breach of other
specific duties

Various levels of fines up to **\$25k**



HEALTH AND SAFETY AT WORK (GENERAL RISK AND WORKPLACE MANAGEMENT) REGULATIONS 2016

	DESCRIPTION	REGULATION
IDENTIFY, CONTROL, MAINTAIN AND REVIEW	Identify hazards and risks	Part 1, r 5
	Apply the hierarchy of control measures	Part 1, r 6
	Maintain control measures	Part 1, r 7
	Review control measures	Part 1, r 8
INFORMATION, SUPERVISION, TRAINING AND INSTRUCTION	Provide health and safety information, supervision, training, and instruction to workers	Part 1, r 9
FACILITIES	Provide general workplace facilities	Part 1, r 10
FIRST AID	First aid equipment and facilities	Part 1, r 13
	Provide trained first aiders	
EMERGENCY PLANS	Develop emergency response plans relevant to business hazards and risks	Part 1, r 14



**PERSONAL
PROTECTIVE
EQUIPMENT
(PPE)**

Provide personal protective equipment fit for work activities and hazards and risks

Part 1,

Maintain and service PPE, and ensure it is used

r 15, 16, 17

**EXPOSURE
MONITORING
AND HEALTH
MONITORING
OF WORKERS**

Carry out health hazard exposure monitoring at suitable intervals, by or under the supervision of a competent person

Keep confidential exposure monitoring records for up to 40 years, and make them available to those potentially exposed

Inform workers of health monitoring and ensure appropriate health monitoring is provided, supervised and paid for

Part 3,

Provide appropriate information about the workplace to occupational health practitioners

r 32-42

Get health monitoring reports where appropriate from occupational health practitioners, and share them with the relevant worker, other relevant PCBUs, and the regulator

Keep confidential health monitoring records for up to 40 years

**YOUNG
PERSONS**

Ensure workers under 15 years do not do certain types of hazardous work, tasks, or work in certain areas, with certain types of machinery, or carry out night work (under 16s)

Part 4,

r 43-48



RISK MANAGEMENT PROCESS

Risk management is just a way of thinking carefully about something so that we have the best chance at success. Risk assessments can be done in many different ways but the main aim of risk management is to try to understand what we know and don't know about a situation, and work out what resources are needed to get the job done well.

The risk assessment process has **five key stages** and **two on-going activities**. At each stage there are some important questions to answer:

1

Establish the context: What is happening, who is involved, when is it happening, where, why and how is it being done?

2

Identify the hazards: What are the situations or things that have the potential for harm?

3

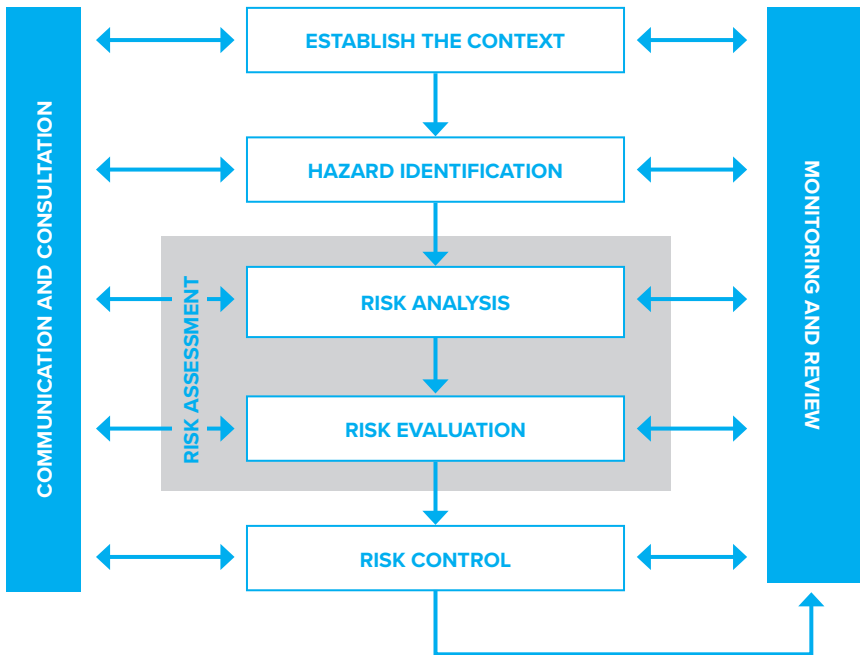
Analyse the risk: What is most likely to cause the most harm? What are the most important things to prioritise for attention?

4

Evaluate the risk: Is the current state OK or can/should we do more to control the risk?

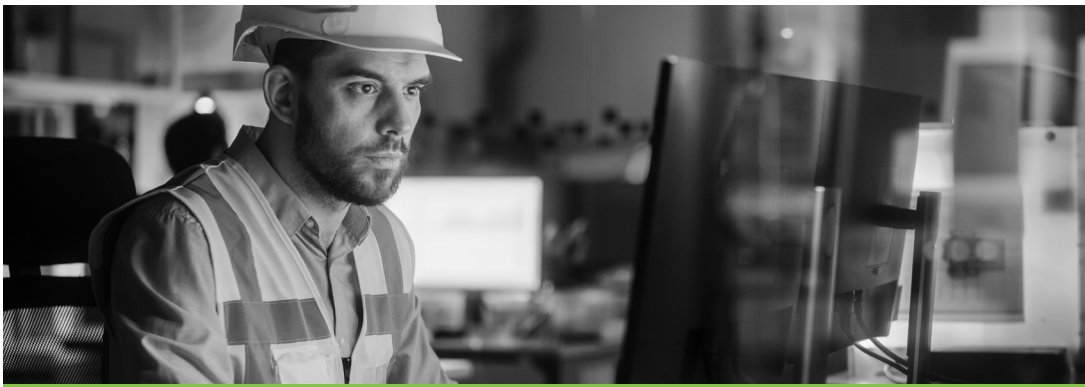
5

Control the risk: What is needed to control the risk, and recover without serious consequences if something goes wrong?



THERE ARE ALSO TWO ON-GOING ACTIVITIES THAT SUPPORT RISK ASSESSMENT:

- + **Communicating and consulting:** This is important because workers know best about how work is done and without their input the risk assessment probably won't be useful and practical. People involved in the work and exposed to the risk also need to be kept in the loop with decisions about changes to their work and the resources they have available.
- + **Monitoring and reviewing:** How, what, when and where are we going to monitor to make sure we keep on top of changes and maintain the risk controls so they stay effective? How, when and who will review the risk assessment to make sure it is still accurate, relevant, and up-to-date?



JOB SAFETY ANALYSIS

What you need to know:

- + What a Job Safety Analysis (JSA) is, when to use one, and its advantages
- + The process; including defining the job, identifying the job steps, identifying hazards and assessing risk at each step, identifying necessary control and recovery measures, and the persons responsible for implementing, monitoring and reviewing the control measures identified.



TOOLS FOR IDENTIFYING HAZARDS

There are many different ways of identifying hazards. The methods used and the detail needed will depend on the scope, complexity and nature of the hazards and the workplace. For example, hazard identification for a large chemical manufacturing plant will be more in-depth than hazard identification for a small steel fabrication company.

Whatever the situation, hazard identification must be:

- + Systematic
- + Comprehensive
- + Appropriate to the situation.

Useful methods for hazard identification include:

- + Hazard categories
- + Area Analysis
- + Task Analysis
- + Process Analysis
- + Data Analysis
- + Official Publications
- + Expert Advice
- + Incident Investigation



JOB SAFETY ANALYSIS

WHAT IS JSA?

Job Safety Analysis (JSA) is a type of task analysis. It can be defined as the systematic identification, analysis, and control of hazards at the activity level.

The complete JSA process and documentation will include:

- + **A Work Method Statement (WMS)** which identifies and documents the job, the work activity, environmental context, key people & processes involved, and the equipment used.

- + The **JSA** itself, which includes:
 - A step-by-step break-down of the job or task, using action verbs to describe each step
 - Identification of the hazards and consequences relevant at each step
 - An analysis of the risk
 - Identification of hazard controls and contingency measures.

- + **Safe System of Work (SSOW)** which is the end result of the JSA and which details how to do the job, including:
 - Descriptions of all actual or potential safety and health hazards associated with the job
 - The required actions and control measures for performing each step that will eliminate or reduce the hazard (i.e. engineering changes, job rotation, PPE, etc.)
 - Emergency/recovery measures in the event the hazard control fails.



THE ADVANTAGES OF JOB SAFETY ANALYSIS

- + Helps prevent injuries/illness, environmental damage, asset loss, loss of good business reputation, and it improves efficiency
- + Meets legal requirements for risk management
- + Provides a formal method for safety critical tasks
- + Is pro-active instead of reactive
- + Identifies the people involved
- + Can be easily communicated to other people
- + Is useful as a training tool
- + Is easy to review and improve on
- + Is audit-friendly (provides documented evidence which can be compared against audit standards and observed practice).



WHEN TO USE JSA

JSA's should be viewed as a standard requirement for assessing the risks associated with all routine and non-routine work activity.

JSA is not intended to replace the Permit-To-Work (PTW) system for high risk work although it should be noted that the PTW system has a JSA component.

JSA can also be used to review standard operating procedures (SOPs) &/or Safe Systems Of Work (SSOWs) which are already in place.

Ideally, all jobs should be subjected to a JSA. In many cases there are practical constraints posed by the amount of time and effort required to prepare JSAs and review them appropriately. The best approach is to identify and assess all jobs at a high level, so that the most critical jobs are examined first.

Factors to be considered in setting a priority for JSA include:

- + **Accident frequency;** jobs where accidents occur frequently
- + **Potential for severe injuries or illnesses:** Where the consequences of an accident, hazardous condition, or exposure to harmful substance are potentially severe
- + **Newly established jobs;** due to lack of experience in these jobs, hazards may not be evident or anticipated
- + **Modified jobs;** new hazards may arise with changes in the way a job is done
- + **Infrequently performed jobs;** workers may be at greater risk when undertaking non-routine jobs
- + **Complex jobs** where there are multiple people/trades involved
- + **Where regulations require a higher level of risk management.**



THE JOB SAFETY ANALYSIS PROCESS

1 Define the job (work method statement)

The work method statement identifies the job, the surrounding work activity, the environmental context, key people and processes involved, and the equipment used.

2 Identify the job/task steps

Each step is a statement of what is to be done (not 'how' it is to be done, or the hazards). A 'step' is a basic part of the task.

- Begin with an action verb (install, remove, assemble etc.).
- End with the subject being discussed (pump, valve, gasket etc.)

3 Identify the hazards and harm

For each job/task step identify if there is anything that can or has the potential to harm or cause damage to people, property/business or the environment.

4 Evaluate the risk

Evaluate the risks arising from the identified hazards and decide whether your existing safety control measures are adequate or whether more should be done to get rid of the hazard or to control the risks.

5 Define the hazard control and recovery measures

For each identified hazard define what 'things' (equipment, procedures, training, guards etc) that will be put in place to either eliminate or manage the identified hazards/risks. Identify what recovery measure should be put in place to manage the consequences should controls fail.



6 Assess the residual risk once the controls are in place.

This is to ensure that the risk has been reduced to an acceptable level.

7 Record the decisions and review periodically

Record/update the JSA and resulting SOP including:

- Who is responsible for ensuring implementation
- The review dates.

DEFINE THE JOB (WORK METHOD STATEMENT)

The term 'job' ('job' and 'task' are commonly used interchangeably) means a specific work assignment, such as 'operating a lathe, or 'changing a flat tire'. Jobs/tasks should not be defined too broadly, for example, 'overhauling an engine'; or too narrowly, for example, 'positioning car jack'.

Good JSA formats require a 'Work Method Statement' which gives a detailed description of the job including:

- + The surrounding work activities or other jobs this task is a part of
- + The environmental context - indoors, outdoors, at height etc.
- + The key people involved or who are affected such as a certain shift or team
- + Processes involved (e.g. de-pressurisation, isolation of power sources)
- + The equipment used.

You can do this by direct observation, group discussion, flowcharts, and questionnaires.



IDENTIFY THE JOB/TASK STEPS

After you've chosen a job for analysis, the next stage is to break the job into steps - 'segments of the operation necessary to advance the work'.

Here are some key points:

- + **Get the detail level right** - a rule of thumb is that most jobs/tasks can be described in less than ten steps. If more steps are required, divide the job into two parts, each with its own JSA
- + **Keep the steps in their correct sequence** - any step which is out of order may miss serious potential hazards or introduce new hazards
- + **Record what is done rather than how it is done** - start each step with an action verb; lift, place, start, stop, tighten, stand etc.
- + **Observe the job with someone else** - you are less likely to miss things, and you will have a second opinion
- + **Use experience and knowledge** - the job observer(s) should ideally have experience and be capable in all parts of the job
- + **Explain the purpose of the exercise** so that you have full co-operation and participation from the person being observed
- + **Observe during normal times and situations**, using the standard tools and equipment
- + **Check and test** - go through the steps you have recorded with the worker/operator and do a test run to see if they work in practice.





IDENTIFY THE HAZARDS AND HARM

Once you've recorded the basic steps, it's time to identify potential hazards at each step. List the things that could go wrong at each step, based on observations of the job, knowledge of accident and injury causes, and personal experience. Again, it's important that the people involved in the JSA know the job well, and talk to those who do the job on a day-to-day basis.

Sometimes you will need to do a second observation of the job. Since the basic steps have already been recorded, you are free to focus more attention on potential hazards. Remember- at this stage, don't attempt to solve the problems you find.

It can be useful to prepare a checklist or list of questions to help identify potential hazards, and also to make JSAs more consistent across different jobs. Remember that hazards are anything which can cause harm to people, the environment, or the business.

Here are some examples of common types of hazards:

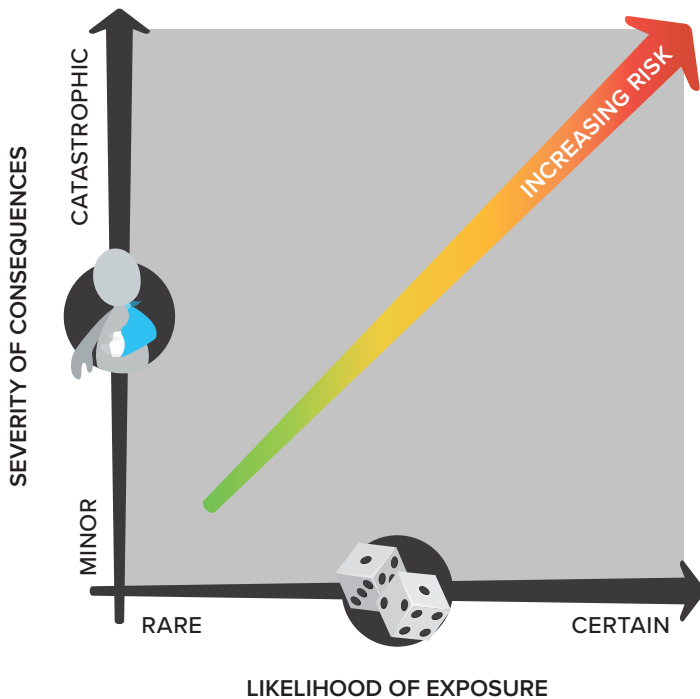
PEOPLE	ENVIRONMENT	BUSINESS
<ul style="list-style-type: none"> • Slip, trip, fall hazards • Unprotected drops • Machinery parts • Sharp edges and points • Moving vehicle/objects • Manual handling • Awkward posture • Noise and/or vibration • Falling objects • Poor lighting • Weather conditions • Hot surface/substance • Dust, fume, vapour • Infectious agent 	<ul style="list-style-type: none"> • Release to air • Release to stormwater • Release to ground • Fire or explosion • Nuisance noise, odour 	<ul style="list-style-type: none"> • Anything causing damage to equipment, vehicles, plant or buildings • Product contamination • Production delay • Quality variation • Adverse publicity



EVALUATE THE RISK

The hazards you have identified at each step need to be evaluated so that you can make judgements about their seriousness. This allows you to do several important things:

- + Meet the legal requirement to assess hazards and identify significant hazards for control
- + Decide whether existing control measures are effective or whether more needs to be done to reduce risk
- + Prioritise hazards for action - do something about high risk immediately.





LIKELIHOOD OF CONSEQUENCES

Likelihood means the chances of harm occurring. There are many ways to do this, from complex 'quantitative' methods using calculations and data, to more 'qualitative' methods, based more on personal judgement.

Here are some examples of things to take into account when estimating likelihood of harm:

- + **Exposure** - the more interactions with a hazard, for longer periods of time, and involving greater numbers of people, the more opportunities there will be for harm.
- + **Advice** from people who are experienced and knowledgeable.
- + **Publications**, guides and statistics to give 'the bigger picture'.
- + **Data** from reporting of injuries, illness, near misses, maintenance requests, environmental incidents, damage reports and so on.

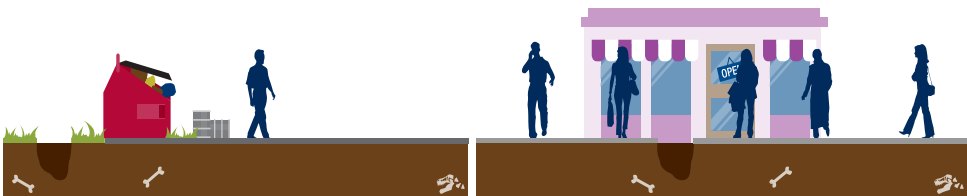


EXAMPLE

Think of the same size hole, but in two different locations:

- 1 Out the back of a vacant plot where few people ever go
- 2 In the middle of a busy street where lots of people walk often.

There is a greater likelihood of harm when the hole is in the middle of a busy street.





SEVERITY OF CONSEQUENCES

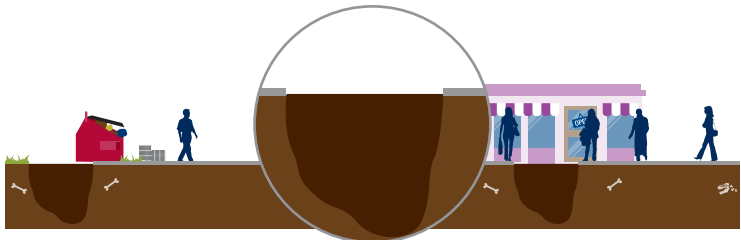
When estimating the potential severity of consequences, take into account:

- + **Energy or force:** Hazards which are bigger, heavier, higher, deeper, sharper, faster, more concentrated, hotter and so on are usually able to cause more severe harm, such as death or permanent disability.
- + **Numbers of people affected:** Consequences are worse when many people are likely to be harmed.
- + **Frequency of exposure:** Frequent exposure to some hazards can have cumulative effects which are more severe than each individual exposure.
- + **Duration of exposure:** Some hazards (eg chemicals, dust, noise) cause more harm the longer a person is exposed.
- + **Personal vulnerability:** Certain individuals or groups are more vulnerable to certain hazards—ie the effects have been shown to be worse, or the threshold where harm occurs is lower.



EXAMPLE

Regardless of where it is, a very deep hole has a greater potential (gravity) to cause more severe injuries if someone falls into it.





THE RISK MATRIX—A RISK ANALYSIS TOOL

A risk assessment matrix is one way of analysing the level of risk so different risks can be compared and prioritised. This is IMPAC’s version.

		LIKELIHOOD				
		1 Highly Unlikely	2 Unlikely	3 Possible	4 Likely	5 Almost Certain
CONSEQUENCE SEVERITY	5 Major	5	10	15	20	25
	4 Significant	4	8	12	16	20
	3 Moderate	3	6	9	12	15
	2 Minor	2	4	6	8	10
	1 Insignificant	1	2	3	4	5



KEY POINT

In IMPAC’s view consequences cannot be reduced in the same circumstances/risk via controls other than elimination (or substitution).

Changing the circumstance/situation might change the subsequent consequences but not in a like for like situation.



LIKELIHOOD TABLE

LEVEL	DESCRIPTION
Highly Unlikely	May occur only in exceptional circumstances, chances less than 0.1% per year
Unlikely	May occur in the industry, local chances more than 0.1% but less than 1% per year
Possible	Has occurred in the industry, local chances more than 1% but less than 10% per year
Likely	Has occurred locally, chances more than 10% but less than 50% per year
Almost Certain	Known issue, is expected to occur more than 50% of the time

WORKER HEALTH AND SAFETY CONSEQUENCE SEVERITY TABLE

LEVEL	DESCRIPTION
Insignificant	Discomfort or first aid treatment
Minor	Medical treatment
Moderate	Restricted work or lost time
Significant	Debilitating, loss of quality of life
Major	Fatality or multiple fatalities



RISK EVALUATION

This means making a judgement about whether the level of risk is OK or not OK, why, and what must happen next. The risk analysis helps us to make this judgement, and also to prioritise risks for action.

LEVEL OF RISK	WHAT IT MEANS
E (Extreme risk)	Stop activity or process immediately, and don't continue until the risk has been reduced.
H (High risk)	Manage risk immediately.
M (Medium risk)	Action required but not immediate.
L (Low risk)	Manage through continuous improvement.





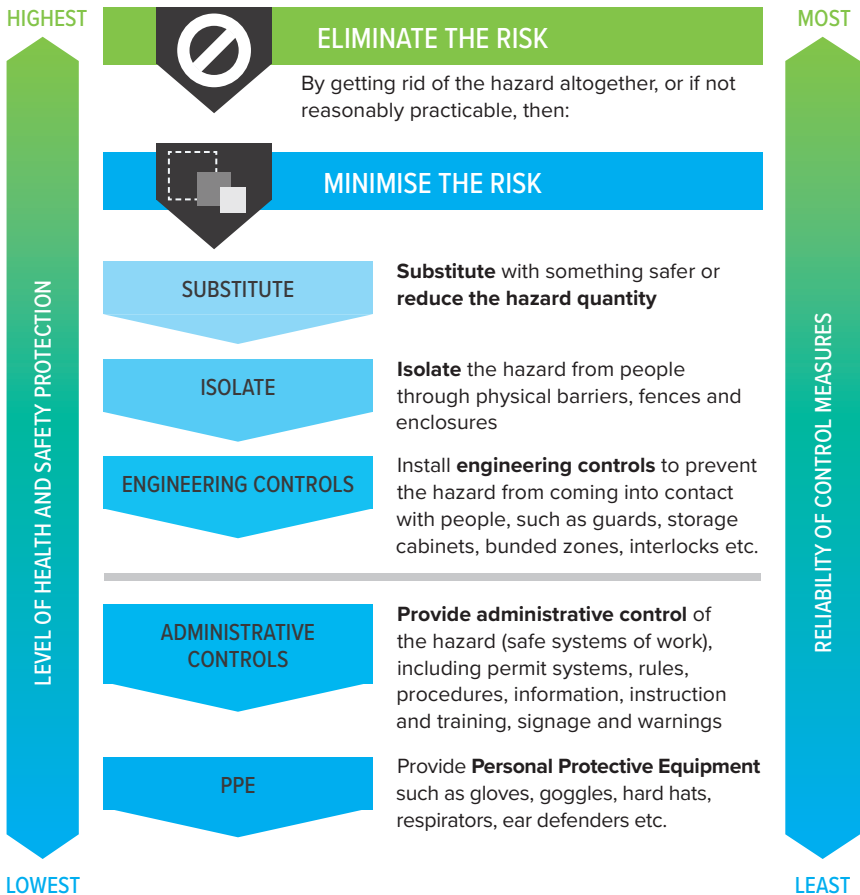
KEY POINT

Critical risks: An organisation must always do everything it can to control risks where the consequences are catastrophic.



DEFINE THE HAZARD CONTROL AND RECOVERY MEASURES

The Health and Safety at Work (General Risk and Workplace Management) Regulations 2016   sets out a preferred order or hierarchy of risk control that duty holders must use. It is important to look at the highest levels of control measures first. However, each method of hazard control has its advantages and disadvantages, and in practice, multiple methods are likely to be applied simultaneously to reduce risk.





ELIMINATE

The most effective control involves eliminating the risk. The best way to do this is by not introducing the hazard into the workplace in the first place. For example, you can eliminate the risk of a fall from height by doing the work at ground level.

Eliminating hazards is often cheaper and more practical to achieve at the design or planning stage of a product, process or place used for work. In these early phases, there is greater scope to design out hazards or incorporate risk control measures that are compatible with the original design and functional requirements. For example, a noisy machine could be designed and built to produce as little noise as possible, which is more effective than providing workers with personal hearing protectors.

You can also eliminate risks by removing the hazard completely, for example, by removing trip hazards on the floor or disposing of unwanted chemicals.

It may not be possible to eliminate a hazard if doing so means that you cannot make the end product or deliver the service. If you cannot eliminate the hazard, then eliminate as many of the risks associated with the hazard as possible.



MINIMISE

If it is not reasonably practicable to eliminate the hazards and associated risks, you should minimise the risks using one or more of the following approaches:



SUBSTITUTE

A risk can be reduced by substituting it with a less risky solution.

A business may decide to substitute a highly corrosive and environmentally harmful cleaning product for a less harmful natural alternative. A warehousing company may move to using pedestrian operated pallet trucks in a busy area, instead of full size fork lift trucks.



ISOLATE

A risk can be reduced through controls which isolate a hazard, separating it from where most people work. Physical barriers such as guard rails are also an effective isolation control. Isolation can be achieved through physical enclosures as well as distance and even timing.



ENGINEERING CONTROLS

Engineered controls can take the form of guards and interlocks, which are designed to make it very unlikely that an operator can contact moving or dangerous parts of a machine unless they are in a safe state.



ADMINISTRATIVE CONTROLS

Risks may be reduced through administrative controls, such as policies and rules. A business may specify a rule that all staff who drive on company business must complete an approved defensive driving course. The training course itself and the knowledge and skills it imparts, is also an example of an administrative control.

Administrative controls also include 'safe systems of work'. Examples are safe work procedures and permit to work systems. These all detail how work should be carried out to minimise risk. If people understand how important it is to work in a particular way, its' more likely that they'll follow safe systems of work consistently and effectively. An example of a safe system of work is job rotation to limit the effects of hand-arm vibration from tools such as road-breakers.



PERSONAL PROTECTIVE EQUIPMENT

Using personal protective clothing and equipment, such as goggles, respiratory protection, gloves and hard hats can prevent or reduce harm to people if they come into contact with the hazard.

Personal protective equipment should not, however, be considered as a first choice control measure, except in exceptional circumstances (eg an emergency). Its success always relies on people to use it in the right way, at the right time, and in the right place.

Personal protective equipment only offers protection from hazards that are already out of control.



RECOVERY AND EMERGENCY RESPONSE

Despite our best attempts, there is a risk that controls may fail. Emergency response aims to minimise the harmful effects of a hazard which has become uncontrolled.

Your JSA must also include emergency response and recovery measures. These may include:

- + Emergency stop buttons
- + First aid supplies and trained staff
- + Eye-wash station
- + Automatic fire suppression system
- + Emergency procedures and trained staff
- + Fail to safe devices.





RECORD THE DECISIONS AND REVIEW PERIODICALLY

Record/update the JSA and consequential SSOW.

HOW TO RECORD A JSA

A JSA is usually a template form which guides the team through the JSA process. There is an example in the appendices of this training manual. The completed JSA should become part of a document control system so that any changes are tracked.

It's important to identify on your JSA the person responsible for:

- + Implementing
- + Monitoring, and
- + Reviewing it..

REVIEW AND TESTING

Make sure it is reviewed regularly and when things change.

The JSA should also be tested to make sure all instructions capture all steps for safe completion of work. Both the operating staff and supervisors should be involved in testing.

A JSA is a controlled document with review dates however any material change in processes, equipment or manpower should prompt you to consider the need for a new job safety analysis.



NOTES



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APPENDICES

- + Appendix 1: Work Method Statement Template
- + Appendix 2: JSA Template

APPENDIX 1: WORK METHOD STATEMENT TEMPLATE

WMS number: Job name: Company:	JSA ref.: SOP ref.: Risk Register ref.	This WMS was prepared by: Date: Review:	Manager name: Sign: Date: Total pages in this WMS:
Description of the job:			
The people involved:			
Name:		Position:	Role in the job:
Description of processes involved:			
Related jobs/work activities:			
Description of the work environment:			
List the equipment needed/used for this job:			



JOB SAFETY ANALYSIS

JOB STEP		POTENTIAL RISK	INITIAL RISK			REQUIRED RISK CONTROLS			RESIDUAL RISK		
Step No.	List job steps in the sequence they are carried out.	List the potential risks for the job step.	Likelihood	Severity	Risk Score	List the controls required to eliminate or minimise the risk.	Likelihood	Severity	Risk Score		





JOB SAFETY ANALYSIS

Step No.	JOB STEP List job steps in the sequence they are carried out.	POTENTIAL RISK List the potential risks for the job step.	INITIAL RISK			REQUIRED RISK CONTROLS List the controls required to eliminate or minimise the risk.	RESIDUAL RISK		
			Likelihood	Severity	Risk Score		Likelihood	Severity	Risk Score



USEFUL WEBSITES

NEW ZEALAND GOVERNMENT

www.worksafe.govt.nz	WorkSafe New Zealand
www.aviation.govt.nz	Civil Aviation Authority
www.maritimenz.govt.nz	Maritime New Zealand
www.police.govt.nz	New Zealand Police
www.standards.govt.nz	Standards New Zealand
www.legislation.govt.nz	New Zealand Legislation
www.acc.co.nz	Accident Compensation Corporation
www.fireandemergency.nz	Fire and Emergency New Zealand
www.civildefence.govt.nz	National Emergency Management Agency

OTHER ORGANISATIONS

www.impac.co.nz	IMPAC
www.safeguard.co.nz	Safeguard
www.chasnz.org	CHASNZ



KEY POINT

For more useful websites and resources we recommend you login to IMPAC's student portal.

OTHER IMPAC COURSES YOU MAY BE INTERESTED IN ARE:

CONFINED SPACE AND GAS DETECTION

This course is designed to empower your team with the knowledge and skills needed to navigate confined spaces safely, in compliance with New Zealand's regulatory standards.

ENERGY ISOLATION (LOCK OUT TAG OUT)

This course is designed for students to learn about machinery lockout and reinstatement.

HSR STAGE 2: RISK ASSESSMENT & INCIDENT INVESTIGATION

This course has been designed for students to understand how to conduct both a risk assessment and a basic incident investigation.

PERMIT ISSUER

This course provides comprehensive training of Permit Issuer protocols and procedures.

PERMIT RECEIVER

This course provides comprehensive training of Permit Receiver protocols and procedures.

+IMPAC

We trust you enjoyed your training with +IMPAC, New Zealand's leading full service Health + Safety solutions provider.

Health + Safety is our life – it's what we do and we do it all:

RISK MANAGER :MEXPRESS

Our cloud-based software solutions are designed to provide risk management processes to meet health and safety requirements and keep people safe. Choose between our cost effective, **set-up-and-go solution RM Express** - ideal for small to medium organisations; and **Risk Manager, with its fully customisable range of modules** which can be tailored to the needs of larger organisations.

CONSULTING

We work alongside businesses and organisations to understand their challenges and opportunities. Our hugely experienced consulting team assess, advise, investigate and **deliver relevant and practical solutions**, applying a sensible risk management approach to health and safety.

PREQUAL

Our **pan-industry solution to contractor prequalification** and ongoing management. We cater for both individuals needing contractor prequalification and companies wanting to manage all their contractors in one easy to navigate platform.

VRCOMPETENCY

Our innovative virtual reality programme to quickly and effectively upskill operators of motorised vehicles and machinery in a safe and risk free environment. Our courses accelerate training times, improve and certify skills and offer continuous learning.

TALENTBANK

With our unrivalled industry experience and wide network of talent, our **specialist recruitment service** helps to connect the right H+S people to an organisation's contract or permanent roles. We fully understand our clients' resourcing needs and know the best way to help H+S professionals build a better career.

SAFEWORX

We supply a comprehensive range of quality standards appraised **workwear, personal protection and safety equipment**, online and at retail branches nationwide. Our expert team partner closely with customers to develop innovative safety products to address gaps in high risk industries.



To discuss any of IMPAC's H+S services
contact 0800 246 722

