



Government of **Western Australia**  
Department of **Commerce**

# GUIDANCE NOTE WORKING ALONE

2009

**commission  
for occupational  
safety and health**

## Foreword

This guidance note is issued by the Commission for Occupational Safety and Health (the Commission) under the provisions of the *Occupational Safety and Health Act 1984* (the OSH Act).

The introduction of the OSH Act enabled the establishment of the tripartite Commission, which comprises representatives of employers, unions and government, as well as experts. It has the function of developing the occupational safety and health legislation and supporting guidance material, and making recommendations to the Minister for Commerce for their implementation. To fulfil its functions, the Commission is empowered to establish advisory committees, hold public inquiries, and publish and disseminate information.

The Commission's objective is to promote comprehensive and practical preventive strategies that improve the working environment of Western Australians. This guidance note has been developed through a tripartite consultative process and the views of employers and unions, along with those of government and experts have been considered.

## Scope and application of this guidance note

This guidance note applies to all workplaces in Western Australia covered by the OSH Act. It provides guidance for employers and workers on the management of safety and health hazards and risks that may arise in relation to hazards that arise from working alone and some of the legislative requirements in the OSH Act and Occupational Safety and Health Regulations 1996 (the OSH regulations).

It is not possible to deal with every situation that may be found at workplaces. Therefore, the practical guidance in this document should be considered in conjunction with the general duties in the OSH Act, as well as specific requirements in the OSH Act and the OSH regulations.

## Legislative framework for occupational safety and health *Occupational Safety and Health Act 1984*

The OSH Act provides for the promotion, co-ordination, administration and enforcement of occupational safety and health in Western Australia. It applies to all industries with the exception of mining and petroleum.

With the objective of preventing occupational injuries and diseases, the OSH Act places certain duties on employers, workers, self-employed people, manufacturers, designers, importers and suppliers.

The broad duties established by the OSH Act are supported by a further tier of statute, commonly referred to as regulations, together with non-statutory codes of practice and guidance notes.

## Occupational Safety and Health Regulations 1996

The OSH regulations have the effect of spelling out specific requirements of the legislation.

They may prescribe minimum standards and have a general application, or define specific requirements related to a particular hazard or type of work. They may also allow licensing or granting of approvals and certificates etc.

## Regulations and codes of practice

If there is a regulation about a risk in the OSH regulations, it must be complied with.

If there is a code of practice about a risk, either:

- do what the code of practice says; or
- adopt and follow another way that gives the same level of protection against the risk.

If there is no regulation or code of practice about a risk, choose an appropriate way and take reasonable precautions and exercise proper diligence to ensure obligations are met.

## Guidance notes and guidelines

A guidance note or guideline is an explanatory document providing detailed information on the requirements of legislation, regulations, standards, codes of practice or matters relating to occupational safety and health, as approved by the Commission.

## Disclaimer

Information in this publication is provided to assist people in meeting occupational safety and health obligations. While information is correct at the time of publication, readers should check and verify any legislation referenced in this publication to ensure it is current at the time of use.

Changes in law after this document is published may impact on the accuracy of information. The Commission provides this information as a service to the community. It is made available in good faith and is derived from sources believed to be reliable and accurate at the time of publication.

## Table of contents

1.	Introduction.....	1
2.	The meaning of 'isolated' .....	1
3.	Planning for the safety of people who work alone .....	2
4.	Factors that may increase risk for people who work alone .....	4
5.	Reducing risk for people who work alone .....	6
	5.1 Safe system of work.....	6
	5.2 Information, training and instruction.....	7
	5.3 Supervision.....	7
6.	Communication with isolated workers.....	7
7.	Communication with workers in certain industries .....	8
	7.1 Agricultural industry.....	9
	7.2 Pastoral industry .....	9
	7.3 Forest Operations .....	9
	7.4 Mining industry .....	9
	7.5 Other industries.....	10
8.	Communication systems .....	10
	8.1 Personal security systems .....	10
	8.2 Radio communication systems .....	10
	8.3 Satellite communication systems .....	11
	8.4 Emergency location beacons .....	11
	8.5 Mobile phones.....	11
9.	Additional hazards.....	12
10.	Glossary .....	13
	Other sources of information.....	14

## 1. Introduction

The risk of injury or harm for people who work alone may be increased because of difficulty contacting emergency services when they are required. Emergency situations may arise because of the sudden onset of a medical condition, accidental work-related injury or disease, attack by an animal, exposure to the elements, or by becoming stranded without food or water. The consequences may be very serious and the injury or disease may be fatal.

This Guidance Note explains the occupational safety and health laws that apply to people who work alone (referred to in the regulations as 'isolated' employees). It covers general requirements in the *Occupational Safety and Health Act 1984* (the OSH Act) and specific regulatory requirements where they exist.

## 2. The meaning of 'isolated'

'Isolation' by definition is 'to set apart, detach or separate so as to be alone'. In Western Australia, the word 'isolated' is often used to refer to remote places a long way from main centres. In this guidance note, the meaning of 'isolated' is used to refer to a person who is alone in any place as part of their work. The word 'alone' is used throughout the guidance note, rather than 'isolated', because it is less likely to be confused with 'remote'.

A person is alone at work when they are on their own, when they cannot be seen or heard by another person, and when they cannot expect a visit from another worker or member of the public for some time. The person who is working alone may be an employer, self-employed person, contractor or employee.

In some situations, a worker may be alone for a short time. For example: a fire fighter may work as part of a team, but others in the team may be unable to see or hear the worker for an hour or more if the team has spread out to fight a bush fire. In other situations, the person may be on their own for days or weeks in remote locations, such as on sheep and cattle stations.

This guidance note does not set down a minimum time that a worker has to be on his or her own for the worker to be considered 'isolated' or 'alone'. Each situation should be assessed on its merits. With the example of the fire fighter above, being alone for an hour may present significant risk if there is a sudden change in wind direction. On the other hand, one hour alone on a sheep station is not likely to present the same level of risk.

In Western Australia, the size and geography of the State mean that there are many situations where a person could work alone in a remote location. Some examples are:

- a worker on a farm or station;
- a worker in forest operations;
- a worker working for a Local or State Government agency;
- a worker engaged in vermin and pest control;
- a worker drilling for water;
- a geologist; and
- a hunter.

A person may also work alone in a metropolitan area, because of the time, location or nature of their work. For example, a worker is alone when he or she:

- works in a depot or business when there are no other worker;
- works in a workplace when everyone else has gone home;
- examines large structures, such as cranes, when there is no-one else in the vicinity;
- undertakes maintenance or construction work in vacant premises;
- cleans offices in high rise buildings outside normal business hours when there is no-one else in the area being cleaned;
- is called out at night to check on security alarms or faults in a business premises that is closed;
- works on his or her own as a ranger in parkland and reserves; and
- inspects vacant small land holdings to assess the risk of fire or look for the presence of noxious weeds when landowners are not present.

People who have regular contact with the public as part of their work are not 'alone' and this guidance note is not written for them. This does not diminish the general requirement for these people to have safe systems of work. In fact, it is often the contact with members of the public that presents the greatest risk. This may apply to people such as community nurses, shopkeepers, newspaper sellers, taxi drivers and petrol station attendants. The risk of work-related violence that these people may face is covered in the *Code of practice: Violence, aggression and bullying at work* published by the Commission.

### 3. Planning for the safety of people who work alone

Development of safe systems of work for people who work alone should take various parts of the occupational safety and health legislation into account. This includes the general duties in the OSH Act for employers, self-employed people and employees, and specific requirements that are set out in regulations.

The requirement to conduct the risk management process is a mandatory requirement set out in regulation 3.1. There is also a requirement to have a means of communication in an emergency and a procedure for regular contact as set out in regulation 3.3. These are two regulations that will always apply in situations where a person is working alone.

When considering ways to control the risks for those working alone, the risk management process should be undertaken in a methodical way. This involves:

- identifying hazards a worker may be exposed to;
- assessing the risks of injury or harm arising from the hazards. This involves considering the chance or likelihood of a hazard occurring and, if it does occur, the extent of any injury or harm; and
- implementing control measures to eliminate or reduce the risks of injury or harm, and ensure they are monitored and reviewed on an ongoing basis.

As part of establishing a safe working environment, employers must provide adequate information, instruction and training for people who work alone. Ensure the worker understands the hazards that may be associated with the work and the procedures that should be followed to reduce risk.

Supervision is also required and it may need to be indirect if the person is alone for long periods of time. Workers should be consulted throughout the process.

See OSH regulations 3.1 & 3.3

Workers who work alone should also be aware of their responsibilities under the OSH Act. They have a general duty to take reasonable care to ensure their own safety and health at work and this includes complying with safety and health instructions given by the employer. Workers are required to report hazards, and any injury or harm, to their employer.

Table one provides an overview of the regulations referred to above, their links with the general duties of the Act and the outcome that should be achieved for each person working alone.

<b>Table one</b>	
<b>Working alone: an overview</b>	
<b>General duties in the Act</b>	<p>Employers must establish a safe working environment for employees who work alone.</p> <p>Employers and self-employed people have to take reasonable care for their own safety when they work alone.</p> <p>Employees must take reasonable care to ensure their own safety and health when working alone.</p> <p style="text-align: center;">↓</p>
<b>Hazard identification, risk assessment, and risk control</b>	<p>Essential processes in a three-step approach to be used to establish a safe working environment where risks are reduced as far as practical.</p> <p>All arrangements to reduce risks should comply with relevant regulations where they exist.</p> <p style="text-align: center;">↓</p>
<b>Essential requirements to reduce risks for all workers who work alone</b>	<p>Employers must ensure that a means of communication is available in the event of an emergency, and that there is a procedure for regular contact. Workers must be trained in these procedures.</p> <p style="text-align: center;">↓</p>
<b>Outcome</b>	<p>A person who is able to:</p> <ul style="list-style-type: none"> <li>• carry out all work activities safely without direct supervision;</li> <li>• manage events that are likely to occur when working alone;</li> <li>• follow procedures to obtain emergency assistance if required; and</li> <li>• follow procedures to establish regular contact with a nominated person.</li> </ul> <p>Where the work is in a remote location, a person who is able to operate safely despite the lack of infrastructure and support, and sometimes in adverse climatic conditions.</p>

See OSH regulation 3.1

See OSH regulation 3.3

## 4. Factors that may increase risk for people who work alone

Set out below are some of the **factors to consider** when identifying the hazards and assessing the risk of injury or disease for people who work alone.

<b>Table two</b>	
<b>The length of time the person may be working alone</b>	
◆ How long would the person need to be alone to finish this job?	
◆ What is a reasonable time for the person to be alone?	
◆ Is it reasonable for the person to be alone at all?	
◆ Is it lawful for the person to be alone while carrying out particular work activities? For example, there is a requirement for a person to stand by when work is undertaken in certain types of confined spaces.	
<b>The time of day when a person may be working alone</b>	
◆ Is there increased risk at certain times of day?	
<b>Communication</b>	
◆ What forms of communication does the person have access to?	
◆ Is voice communication essential for the safety of the person?	
◆ Will the emergency communication system work properly in all situations?	
◆ If communication systems are vehicle-based, what arrangements are there to cover the person when he or she is away from the vehicle?	
<b>The location of the work</b>	
◆ Is the work in a remote location?	
◆ What is the form of transport? The level of risk may vary with different types of vehicles, different bikes (two, three or four wheels) or other forms of transport.	
◆ Is the vehicle fitted with emergency supplies, such as adequate drinking water?	
◆ What is likely to happen if there is a vehicle breakdown?	
◆ Will the person be required to leave his or her vehicle for long periods of time?	
◆ What first aid equipment is available for immediate treatment? For example, a first aid kit in the vehicle.	
◆ If first aid equipment is vehicle-based, what arrangements are there to cover the person when he or she is away from the vehicle?	
◆ What level of first aid training is required for the person to be able to use the first aid equipment?	
<b>The nature of the work</b>	
◆ Is there adequate information and instruction for the person to be able to work alone safely?	
◆ What machinery, tools and equipment may be used?	
◆ Is equipment and machinery maintained so that it is safe to use?	



<ul style="list-style-type: none"> <li>◆ Is there high risk activity? For example work at heights, work with electricity, work with hazardous substances or</li> <li>◆ hazardous equipment, such as chainsaws or firearms.</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Is there likely to be work in a confined space (for example, repair or cleaning work inside a water tank or silo) and is the air in the confined space likely to be low in oxygen or contaminated in some way?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Is fatigue likely to increase risk (for example, with long hours driving a vehicle or operating machinery)?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Is there an increased risk of violence or aggression when workers are alone?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Can environmental factors affect the safety of the worker? For example, is the person likely to be exposed to extremes of temperature?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Is there risk of attack by an animal, including reptiles, insects and sea creatures?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Is there an effective system for checking that all protective clothing and equipment and emergency equipment is packed and in good working order?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Are there procedures for regular contact with the person who works alone?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ If the person is working inside a locked building, how will emergency services gain access if the person is unable to let them in? For example, night cleaners who work alone.</li> </ul>	
<p><b>The competencies and characteristics of the person who is to work alone</b></p>	
<ul style="list-style-type: none"> <li>◆ Are you aware of anything in the person's ethnic, cultural or religious background that is likely to increase risk if he or she works alone. For example, long periods of fasting where the lack of food and water intake may increase the risk of ill health in very hot weather.</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Is there anything that would interfere with the person's ability to contact someone in an emergency?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Are there factors relating to the person's age that are likely to increase risk?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ What is the person's general behaviour and level of psychological maturity?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Is the person physically capable of completing all work activity alone?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Are you aware of a pre-existing medical condition that may increase risk?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Is the person likely to make sound judgements about his or her own safety?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Is the person likely to cope in unexpected and stressful situations?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ What is the person's level of work experience and training?</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Has the person had training to prepare them for working alone and, where applicable, in remote locations? For example, training for first aid, relevant administrative procedures, vehicle breakdowns, communications systems and bush survival.</li> </ul>	
<ul style="list-style-type: none"> <li>◆ If a road vehicle is used, is the person competent to drive on country roads and, where applicable, in off-road situations?</li> </ul>	
<p><b>Is there anything else that applies to your situation that is likely to increase risk for the person who works alone?</b></p>	

These are examples of the types of questions you may ask when you are assessing risk for a person who works alone. The questions are included here as a guide only and there may be others that you need to ask for your situation. If you do not know, or are unsure of the answers to the questions above, you will require more information before you can complete your risk assessment. Contact details are provided at this end of this guide, if you need more information.

The aim is to work out which hazards are more likely to cause injury or harm to the health of a person who works alone, and how serious the injuries or diseases might be. In high-risk situations, where there may be serious consequences, action to reduce risk should be taken before the person begins to work alone.

It is important to be aware that workers have the right for some information to remain confidential. Matters relating to a person's ethnic, cultural or religious background should be handled sensitively. Similarly, a worker may not wish to discuss medical matters and should not be pressured to do so. Given adequate information about the risks associated with working alone and the possibility of increased risk in certain situations, workers have a duty to take reasonable care of their own safety and health at work. This would include making judgements about the extent to which confidential matters are likely to affect their own safety and health.

Once a safe system of work has been developed, it should be reviewed regularly, for example by consulting with workers and investigating accidents.

## 5. Reducing risk for people who work alone

Requirements to reduce risk in certain ways are included in general duty requirements and in the specific regulatory requirements referred to in Table One.

The OSH Act requires employers, so far as is practical, to provide and maintain a working environment where their employees are not exposed to hazards. The general duties imposed on employers by the OSH Act include requirements for:

- safe systems of work;
- information, instruction, training and supervision;
- consultation and co-operation;
- personal protective clothing and equipment; and
- safe plant and substances.

### 5.1 Safe system of work

When establishing a safe system of work, employers should question the work methods to determine whether it is necessary for the person to work alone. There may be a decision that the level of risk associated with certain activities is too high for the person to carry out the activity alone. The example of the fire fighter working alone, used earlier in this guidance note, is one where the system of work may be set up to eliminate situations where anyone is alone. Elimination of the hazard is the most effective way of making the work safer.

In some situations, it may not be reasonable or possible to eliminate situations where a person works alone, so the system of work should include measures to reduce risk.

## 5.2 Information, training and instruction

The information, training and instruction provided by the employer must address specific items relating to working alone, including the use of emergency communication devices and following the procedures set up under regulation 3.3 for making regular contact which are explained in section 6 of this guidance note. This training would be in addition to general training in safe work procedures for the work activity to be completed whilst the person is working alone. In some cases, there may be the need for additional training, such as survival techniques where workers are in remote locations.

Procedures for emergencies, such as fire, first aid or spills of hazardous substances must be appropriate for workers who work alone.

In some workplaces, working alone may increase the risk of violence and aggression. A risk assessment must be used to identify hazards and implement appropriate control methods. More information on reducing the risk of violence and aggression can be found in the *Code of practice: Violence, aggression and bullying at work*.

## 5.3 Supervision

Special consideration should be given to the supervision of workers working alone, especially if the work is carried out in a remote area. An employer is expected to ensure that workers are following safe work procedures and working in a manner consistent with the instruction and training provided. Adequate supervision should ensure workers take reasonable care of their own safety and health.

It is up to each employer to determine the most effective way of supervising workers who work alone. Because of the nature of the work, direct supervision would not be possible. This means a method of indirect supervision should be in place. It is not sufficient to introduce safe procedures without monitoring implementation to ensure that they are adopted and are effective.

In situations where there is a new worker who is not well known to the employer or, for any other reason, the employer is not sure of the person's ability to work alone, that worker should not be assigned to work alone. As far as practical, the employer should be satisfied that the worker will work in a safe manner and be able to follow all emergency procedures when left alone.

Failure to address unsafe behaviour, and provide adequate information, instruction, training and supervision would be considered a breach of the employer's duty of care.

Similarly, workers who do not comply with the safety instructions provided by the employer, wear protective clothing and equipment that is provided, or intentionally misuse or damage equipment, would be a breach of their general duty of care under the OSH Act.

## 6. Communication with isolated workers

### Regulation 3.3 states:

If an employee is isolated from other people because of the time, location or nature of the work then the employer must ensure that —

- (a) there is a means of communication available which will enable the employee to call for help in the event of an emergency; and

- (b) there is a procedure for regular contact to be made with the employee and the employee is trained in the procedure.

Refer to the OSH regulations for penalties

See OSH regulation 3.3

While regulation 3.3 requires there be regular contact and a means of communication, it does not define these terms. Thus the regulation provides for these matters to be determined according to what is practical for the circumstances and in consultation with the workers. Regular contact should be systematic contact at pre-determined intervals having regard for the hazards involved.

As the regulation requires a procedure for regular contact and a means of communication, this means that both requirements should be in place as part of a safe system of work. The wording of the regulation does not allow the choice of one or the other, whatever the perceived level of risk. Both are mandatory in situations where a worker is working alone.

See OSH regulation 3.3

While regulation 3.3 applies to 'employees', the principles of establishing a means of communication and a procedure for regular contact should be applied to the system of work for employers and self-employed people who may work alone. The requirement for these people to take reasonable care to ensure their own safety is part of their general duties under the OSH Act and is not dependent upon the support of a specific regulation.

Where the worker is required to travel over well constructed and frequently used roads and return to home base on the same day and the work activities are assessed as low risk, a telephone call to home base on arrival and departure may be sufficient.

Where a worker is required to travel and work in remote areas, policies or procedures covering time away from their home base, developed in consultation with workers, should be implemented and monitored. These procedures should include:

- a requirement for an itinerary to be approved by the employer well in advance of departure;
- the employer should be advised of any changes to proposed routes, departure and arrival times and accommodation arrangements; and
- if a company vehicle is used to travel to and work in a remote area, the policy should cover use of the vehicle during working hours and non-working hours.

Where a worker is required to work in a remote area, and drive to the worksite over inadequately signposted or poorly constructed roads, the worker should be contacted at prearranged intervals. In addition to a procedure for regular contact to be made with the worker, an emergency location beacon should be carried in the vehicle. In emergency situations where there is no other form of communication, the beacon should be activated.

## 7. Communication with workers in certain industries

The following information describes what might be practical in terms of providing supervision and a means of communication in certain industries.

## 7.1 Agricultural industry

Agricultural industry workers who frequently work alone include fencers, plant operators, dam builders, farm workers (particularly during seeding and harvesting), and those checking stock, windmills or water supplies.

Generally these workers work away from the main farm buildings on a daily basis and are not required to stay on the job, away from the main buildings, overnight.

The employer must ensure the person is provided with sufficient information about the hazards to which he or she is likely to be exposed and is appropriately trained and equipped to carry out the work in a safe manner. The worker must be given clear directions as to where the work is to be carried out and a safe means of reaching the site.

The start and finish time for the job and the expected time of return to the main buildings should be agreed between the employer and the worker. The risk assessment will indicate the frequency of contact and whether there should be communication between the employer and the worker between departure and return, and if so, the most practical means of doing so.

The agreed start and finish times and the location of the worker should be displayed in a prominent place in the main buildings where they can be readily seen by other people at the workplace.

Employers and self-employed people who work alone in the agricultural industry should have nominated people who know where they are and make contact with them during the day. These people could be family members or neighbouring farmers.

## 7.2 Pastoral industry

Pastoral industry workers who frequently work alone include fencers, plant operators, dam builders, caretakers and people checking stock, windmills and water supplies. Those carrying out these tasks could be away from the homestead over several days. A similar process for establishing procedures for the provision of information, regular contact and communication in the agricultural industry should be used for workers, employers and self-employed people in the pastoral industry.

## 7.3 Forest Operations

In forest operations, fellers, some hauliers and plant operators work alone or outside the sight or hearing of other people in the forest. Start and finish times, including departure for and from the location, should be agreed and documented. In addition to either voice or personal contact before commencing work, there should be regular and pre-arranged voice or visual contact between the worker and the supervisor during normal working time at intervals not greater than two hours.

## 7.4 Mining industry

Occupational health and safety in the mining industry is covered under the *Mines Safety and Inspection Act 1994* and the *Mines Safety and Inspection Regulations 1995*.

In underground mines there are specific requirements for people working alone and a general prohibition on people working alone in hazardous conditions. People working in a team in a hazardous area must remain, at all times, in sight of another worker.

For workers who work alone, it is a requirement that they are visited or communicated with every two hours.

## 7.5 Other industries

Many industries include examples of workers working alone and it is important to conduct a risk assessment in all cases, even where the person works in the metropolitan area. Examples include:

- large worksite, such as warehouses, operating 24 hours a day where workers may be outside direct communication lines for long periods;
- delivery drivers working at night;
- residential construction sites, where workers perform potentially hazardous work alone; and
- scientists and consultants conducting field work.

## 8. Communication systems

In situations where a person is working alone in a workplace that has a telephone, communication via the telephone is adequate for the purpose of regulation 3.3(a), provided the person is able to reach the telephone in an emergency.

See OSH  
regulation  
3.3(a)

In remote areas or in situations where a telephone is not available, selection of a means of communication should follow the development of specifications that lead to a system that will allow a person to call for help in the event of an emergency at any time when working alone. The system may provide for the person to speak to someone, but this is not essential in order to comply with regulation 3.3(a). The call for help may be via a personal security system or, in remote areas, an emergency location beacon.

See OSH  
regulation  
3.3(a)

In developing the specification, consideration should be given to the distance from base and the environment in which the worker will be located or through which he or she will be travelling, that is, whether it is flat, open country, dense forest or hilly, rugged terrain. Expert advice will be needed to assist with the selection of an effective communication system. Local knowledge will also assist in this regard.

### 8.1 Personal security systems

Personal security systems provide a means of emergency communication for people working alone or in potentially dangerous environments. These systems, being wireless and portable, are suitable for people moving around or checking otherwise deserted workplaces. The person carries a transmitter or transcriber to a central receiver. Some personal security systems include a non-movement sensor that will automatically activate an alarm transmission if the transmitter or transceiver has not moved within a certain time.

### 8.2 Radio communication systems

Two-way radio systems fall into categories with different levels of complexity and capabilities dependent upon a number of factors such as frequency, power and distance from or between broadcasters. Equipment is available for mobile or fixed use, portable or vehicle mounted.

Radio communication may be between two mobile users in different vehicles or from a mobile vehicle and a fixed station. Mobile phones cannot be relied upon as an effective means of communication in many locations. When they are used, there should be arrangements to maintain an adequate supply of charged batteries.

### 8.3 Satellite communication systems

Satellites have an important role in global communication making it economical to communicate with people in geographically remote locations. They serve a variety of functions including relaying telephone signals.

Satellite phones are probably most suitable for Western Australia's 'outback'. They allow voice transmission during transit. Care should be taken, however, as their operation is affected by damage to aerials, failure of vehicle power supplies, or vehicle damage.

### 8.4 Emergency location beacons

The carriage of an emergency location beacon is strongly encouraged for use where life-threatening emergencies may occur, to pinpoint location and to indicate by activation of the beacon that an emergency exists. It is important for the users of this equipment to understand that it should only be used in an emergency or as a last resort. For a person travelling in remote locations, there will usually be a system for voice communication as well as an emergency location beacon.

Emergency location beacons are not dependent on local base stations or affected by damage to aerials, failure of vehicle power supplies, or vehicle damage as is the case with satellite phones, and two-way radios. The beacons are simply alerting devices used to pinpoint location using an aircraft to home in on the transmissions when the beacon is activated. It is not possible to transmit voice or speech on emergency location beacons.

The capability of models currently available varies in accuracy. With some beacons positioning is accurate within a 5km radius. Some models must be in line of sight of both satellite and ground station to be effective whereas in others this is not necessary. Some beacons can be coded with owner details, which will be transmitted when the beacon is activated.

Emergency location beacons include Emergency Position Indication Radio Beacons (EPIRB) used in ships and boats, Emergency Locator Transmitters (ELT) used in aircraft and Personal Locator Beacons (PLB) for personal use. The frequency used by emergency location beacons was changed on 1 February 2009, so it is important to use a device that uses the new frequency.

### 8.5 Mobile phones

Caution should be used when choosing a mobile phone as the means of communication. Coverage in the area where the worker will work should be confirmed before work commences. Geographical features may impede the use of mobile phones, especially at the edge of the coverage area, and different models have different capabilities in terms of effective range from the base station. Consult your provider if there is any doubt about the capability of a particular phone to sustain a signal for the entire period the worker is alone.

Should any gaps in coverage be likely to emerge, employers should consider other methods of communication.

It is important that batteries are kept charged and a spare is available.

## 9. Additional hazards

There are many additional sources of information, including Commission codes of practice for specific hazards, such as working hours, and guidance material, such as the *Guidance note: General duty of care in Western Australian workplaces*.



## 10. Glossary

### code of practice

A code of practice approved by the Minister responsible for the OSH Act.

### employee

Under the OSH Act, 'employee' means:

- (a) a person by whom work is done under a contract of employment; or
- (b) an apprentice or trainee.

### hazard

In relation to a person, anything that may result in injury to the person or harm to the health of the person.

### isolated employee

An employee who is alone in any place as part of their work.

### mine safety legislation

Occupational health and safety in the mining industry is covered under the *Mines Safety and Inspection Act 1994* and the Mines Safety and Inspection Regulations 1995.

### occupational safety and health legislation

The Western Australian *Occupational Safety and Health Act 1984* (the OSH Act) and the Occupational Safety and Health Regulations 1996 (the regulations).

### practical

Means reasonably practicable having regard to:

- (a) the severity of any potential injury or harm to health that may be involved, and the degree of risk of it occurring;
- (b) the state of knowledge about –
  - (i) the injury or harm referred to in paragraph (a);
  - (ii) the risk of that injury or harm to health occurring; and
  - (iii) means of removing or mitigating the risk or mitigating the potential injury or harm to health; and
- (c) the availability, suitability and cost of the means referred to in paragraph (b)(iii).

### remote

A place that is a long way from the infrastructure required in an emergency.

### risk

In relation to any injury or harm, the probability of that injury or harm occurring.

### workplace

Under the OSH Act, 'workplace' means a place, whether or not in an aircraft, ship, vehicle, building, or other structure, where employees or self-employed persons work or are likely to be in the course of their work.

Certain workplaces, including mines, petroleum wells and petroleum pipelines, are excluded.

## Other sources of information

**This guidance note should be read in conjunction with other relevant publications produced by the Commission for Occupational Safety and Health and WorkSafe.**

*The Occupational Safety and Health Act 1984* and the Occupational Safety and Health Regulations 1995.

Copies may be purchased from the State Law Publisher, 10 William Street, Perth 6000.

Electronic versions are available through the website [www.slp.wa.gov.au](http://www.slp.wa.gov.au)

### Commission for Occupational Safety and Health codes of practice and guidance notes

- [Working hours](#)
- [Violence, aggression and bullying at work](#)
- [First aid facilities and services, workplace amenities and facilities and personal protective clothing and equipment](#)
- [Formal consultative processes at the workplace](#)
- [General duty of care in Western Australian workplaces](#)
- [Preparing for emergency evacuations at the workplace](#)

WorkSafe publications:

- Checklist - [Isolated employees – commercial vehicle drivers](#)

Available:

- at [www.worksafe.wa.gov.au](http://www.worksafe.wa.gov.au);
- from WorkSafe 9327 8777; and
- in the WorkSafe library.

For further information in relation to the mining industry, refer to the Resources Safety Division of the Department of Mines and Petroleum at [www.dmp.wa.gov.au/ResourcesSafety](http://www.dmp.wa.gov.au/ResourcesSafety)