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INTRODUCTION

This guide manual provides a summary of the basic safety information and rules at CSBP. Compliance for all personnel working at a CSBP WA site is compulsory.

The provision of safe working conditions and the competence of personnel form only part of our safety programme. The active participation of all personnel in behaving safely while at CSBP is required to ensure the prevention of personal injury, property damage and environmental impact.

Complementing the rules and practices within this document is the [Health & Safety Policy \(IF0406\)](#). These principles are displayed throughout the business and form the basis of CSBP's commitment to safety.

Managers, Supervisors and employees shall identify and address all substandard behaviour and processes in the workplace immediately, or as soon as practical.

Personnel – employees, contractors and visitors at CSBP are obliged to participate in our safety programmes and comply with these rules.

The following serve as the basis for good safety behaviour:

- Assess the risk of any job you are doing. There are no unsafe jobs – only unsafe ways of doing them.
- Always follow instructions. If you are uncertain, ASK for clarification.
- Report all incidents and hazardous conditions or practices to Supervisor/Safety personnel or via Cintellate (CSBP's on-line reporting tool).
- Never carry out work you are not authorised or competent to do.
- Wear appropriate and approved personal protective equipment (PPE) as mandated.
- Ensure that you know the nature of the hazardous substances that you are working with and that you employ suitable handling, storage and disposal practices and correct use of PPE. A copy of the Material Safety Data Sheet, MSDS, can be found using ChemAlert (accessed via the Intranet) or by asking your Supervisor.
- Smoke only in designated and sign posted areas.
- Alcohol and illegal drugs are not permitted on CSBP work sites.
- Anyone who has access to a CSBP site is to ensure they are fit for work. This means they are not under the influence of alcohol or drugs or impaired in their capacity to work due to fatigue or other stress.
- If your health condition requires you to take prescription medication that may affect your performance, you MUST inform your immediate Supervisor. A review by the CSBP Doctor may be required.

1. GENERAL DUTY OF CARE

Employers, employees, self-employed persons, contractors and others such as people who control workplaces, design and construct buildings or who manufacture and design plant have responsibility for safety.

Statutory safety and health requirements are currently found in a number of Acts and Regulations. The main ones that apply at CSBP are:

- Occupational Safety and Health Act and Regulations
- Dangerous Goods Act and Regulations
- Workers' Compensation and Rehabilitation Act
- Major Hazard Facility Regulations

1.1 EMPLOYERS DUTY OF CARE

CSBP must, as far as is practicable, provide and maintain a working environment where the workforce is not exposed to hazards.

CSBP is required to:

1. provide a safe place of work,
2. provide a safe system of work,
3. provide and maintain a safe plant and equipment,
4. provide competent personnel to manage and supervise the work and the employee,
5. provide instruction and training, and
6. consult with the workforce on issues that effect safety.

1.2 EMPLOYEES DUTY OF CARE

All persons at work (employees, contractors and visitors) must take reasonable care for their own safety and health and avoid harming the safety and health of others. Employees are required to:

1. follow the safety and health instructions given by CSBP,
2. report hazards, work-related injuries, and any harm to health,
3. correct any hazard that they are able to as soon as possible, and
4. use and take good care of PPE and equipment (including cleaning and maintenance).



1.3 RESOLUTION OF SAFETY & HEALTH ISSUES

When an employee or contractor discovers a safety or health issue in the workplace they should correct the hazard if possible and then report it to their Supervisor. The hazard should be entered into Cintellate. If the employee or contractor cannot resolve the issue, then the Supervisor must attempt to resolve it. If the Supervisor cannot resolve the issue, even after involving the Safety Department, CSBP procedure [Resolution of Safety and Health Issues \(DP-11-031-06\)](#) shall apply.

2. CSBP SITE EMERGENCY ARRANGEMENTS

2.1 EMERGENCY ALARM

Each CSBP site has a formal audio alarm system to alert persons on site that an emergency exists or potentially exists. Individual sites may have different alarm sounds and / or duration; the system at Kwinana is as follows:

a. Emergency Alert Alarm

The emergency alert alarm is an undulating sound. When this alarm sounds, the emergency systems are activated. All other personnel not involved in the emergency will stay alert, but remain in their work areas and continue to work. The only exception to this is a confined space, where personnel **MUST** exit the confined space until the all clear is given.

b. Evacuation Alarm

The evacuation alarm is a continuous sound. When this alarm sounds, all personnel are to assemble at the nearest muster area that can be reached safely. Personnel will “badge in” their site access cards at these set muster points (refer to [Kwinana Works Muster \(DP-11-015-01\)](#)).

Note: All Work Permits are automatically suspended on sounding of the evacuation alarm.

All Work Permits **MUST** therefore be revalidated prior to work recommencing following the “All Clear”.

2.2 REPORTING A SERIOUS INJURY/ILLNESS OR AN EMERGENCY SITUATION

If a serious injury / illness or on-site emergency occurs, at any time, day or night, it **MUST** be reported promptly by dialling the relevant site emergency number. At Kwinana this is “444” internally or 9411 8444 on external / mobile phone.

Potential on-site emergencies include; but not limited to

- Serious injury or illness.
- Fire.
- Hazardous substance release or spill.
- Environmental contamination.
- Serious vehicle accidents.
- Structural failure, damage.
- Severe weather conditions.
- Bomb threats or terrorism.

Note: The effects of these conditions may range from an emergency notification to a full evacuation of all personnel.

2.3 MEDICAL EMERGENCY

If a person is injured or becomes ill at Kwinana, you will need to raise the alarm by dialling “444”. If you are able, administer first aid. Stay with the person if possible, reassure them and wait for help. Keep them calm and warm if you can. If a medical emergency occurs at other CSBP WA sites, external assistance should be sought by dialling “000”.

First aid kits and oxyports are available in key operational areas and can be used as required.

3. INCIDENTS & HAZARDOUS CONDITIONS

3.1 REPORTING & INVESTIGATING

All incidents, near misses and hazards **MUST** be reported directly to your Supervisor and then into Cintellate.

All incidents **MUST** be thoroughly investigated and appropriate actions assigned to reduce the likelihood of recurrence.

If you are in doubt about the need for reporting, seek advice from your Supervisor, CSBP Responsible Officer, a member of the Safety Team or a Safety and Health Representative.

All injuries requiring first aid treatment **MUST** be reported to your Supervisor or Responsible Officer immediately. At Kwinana, treatment can be received from the Occupational Health Nurse

by reporting to the Medical Centre during normal working hours and by the Shift Supervisor after hours. Qualified First Aid personnel can also provide First Aid treatment.

4. TRAFFIC MANAGEMENT

4.1 GENERAL

All CSBP sites have large numbers of truck and mobile plant movement. The separation of personnel from such traffic is a key safety requirement.

- a. Personnel will use designated walkways or crossings where established.
- b. All personnel accessing operational areas **MUST** wear high visibility clothing (either shirts or vests).
- c. If you need to cross in front of a truck / mobile plant, you **MUST** make eye contact with the driver first, signal your intent, and have permission from the driver prior to crossing.
- d. Follow the directions of all roadway signs at CSBP WA sites.



Limited visibility and braking on some equipment. Pedestrians to give way to all mobile equipment.

4.2 DRIVERS OF VEHICLES

- a. Compliance with Western Australian Road Traffic Rules **MUST** be adhered to at all times, including sign posted site speed limits and stop signs.
- b. Seat belts **MUST** be worn, where fitted in vehicles.
- c. Do not use hand-held mobile phones whilst driving vehicles. Only hands free mobile phones can be used whilst driving vehicles.

4.3 OPERATORS OF MOBILE EQUIPMENT

- a. Do not operate mobile equipment unless you are competent and registered as an operator or under instruction from a competent, trained instructor.
- b. Seat belts **MUST** be worn, where fitted, in mobile equipment.
- c. Do not use hand-held mobile phones whilst driving mobile plant equipment. Only hands free mobile phones can be used whilst driving vehicles.

4.4 PASSENGERS IN VEHICLES AND MOBILE EQUIPMENT

- a. Do not ride on vehicles or mobile equipment unless they have passenger seats.



- b. Do not mount or dismount from a vehicle or mobile equipment when it is in motion.
- c. At the main security gates passengers will exit the vehicle and pass through the person turnstile.
- d. At the road gates into the Sodium Cyanide Production Facility, passengers remain in the vehicle, but then badge on into the Sodium Cyanide Production Facility Reception desk.
- e. Do not ride on the trays, fenders, running boards, tops, bumpers, side-walls, tailgates or bonnets of any vehicle or mobile equipment.

4.5 PEOPLE MOVEMENT ON-SITE

Whilst on site at CSBP pedestrians are required to move in a safe and orderly manner. Some general rules are:

- a. Do not run unless it is an emergency. Running increases the risk of tripping, falling, colliding with other pedestrians or coming into contact with mobile equipment.
- b. Use designated walkways and crossing points whenever possible.
- c. Keep clear of mobile equipment (trucks, loaders etc). Remember they have large blind spots and long stopping distances. NEVER presume they have seen you – stay clear.

On stairways:

- a. Personnel should maintain a minimum of two points of contact with one hand on the handrail at all times.
- b. Avoid carrying items in both hands or items large enough to need both hands. One hand must be on the handrail.
- c. Do NOT jump up or down steps.
- d. Take steps one at a time.

For information on ladders please refer to section 13.2.

5. HAZARDOUS SUBSTANCES

In this section the terms "Hazardous Substances" refers to any chemical or material that possesses a classification under the NOHSC criteria and which posses any of the following characteristics:

- toxicity,
- corrosive or reactive state,
- human sensitivity, and/or
- explosive or combustible state

Area specific inductions will outline the hazards in your work area.

The risks must be evaluated and controlled before using any hazardous substance. Control measures for hazardous substances should be dealt with in the following order:

1. Elimination of the need for the hazardous substance.
2. Substitution with a less hazardous substance.
3. Engineering measures (e.g. enclosure of the substance and / or ventilation of fumes / gas).
4. Administrative measures (e.g. restricting access/exposure or following a specific procedure).
5. Use of personal protective equipment.

Hazardous substances shall only be used by personnel who have read and understood the MSDS, and are protected by appropriate personal protective equipment.

Note: All spills MUST be cleaned up and / or neutralised and then reported via Cintellate. If the spill is significant in size, contact Emergency Response on '444' for spill cleanup assistance .

For more information about properties and usage of hazardous substances refer to CSBP procedure [Control of Workplace Hazardous Materials \(GM-11-037-05\)](#).

Note: MSDS's for CSBP Products are listed on the Document Management System (Domino Doc). Copies of MSDS's can also be found using ChemAlert (accessed via the Intranet) or by asking your Supervisor for the relevant MSDS.

5.1 SAFETY SHOWERS

The location of safety showers and eyewash stations are identified by a green fluorescent light. Familiarise yourself with the location and operation of these showers in your own work area.

Safety showers **MUST** be used in the first instance for a chemical or thermal burn.

If contact occurs:

1. Remove the person from the hazard
2. Raise the alarm
3. Remove clothing and jewellery from affected areas
4. Wash the affected area for a minimum of 20 minutes under a safety shower
5. Using copious amounts of water immediately is important in chemical burns, as this will dilute and remove the product from the skin and will decrease the severity of skin damage. If Diphoterine is available it can also be administered to assist in the neutralisation of chemical burns.

Seek medical advice – all burns MUST be reported to the medical centre immediately for further attention and treatment

The location of safety showers are identified during local area inductions.

Note: Some safety showers are alarmed to the local control room.

5.2 DIPHOTERINE

Diphoterine is a substance which is used to neutralise acidic or alkaline chemicals. The purpose of diphoterine is to aid in the first aid treatment of chemical burns. It is available across site and located in plant control rooms, the medical centre and with Shift Supervisors.

If you identify during a risk assessment that a task has the potential for chemical burns, diphoterine can be used as a control measure at the job site.

Replacement containers of diphoterine can be obtained through the medical centre.



Where a chemical burn is suspected the priority is to wash the affected area under a shower or eye wash station for at least 20 minutes. Diphoterine can be applied during or after this time

5.3 BREAKING INTO HAZARDOUS PIPELINES

Breaking into a pipeline that may contain hazardous substances requires strict conformance with CSBP procedures that include:

- [Breaking Into Hazardous Pipelines \(GM-11-036-02\)](#)
- [Work Permit System \(GM-11-031-51\)](#)
- [“Take 5” and Job Safety Analysis Risk Assessment \(GM-11-031-23\)](#)



The individual performing the task and the watch person **MUST** wear the minimum stipulated PPE for the class in accordance with the procedure.

5.4 DECONTAMINATION

Many items of equipment such as pipes, valves and pumps are in contact with hazardous substances whilst in service. When these items need to be removed from service, they **MUST** be decontaminated and tagged using a decontamination tag. This ensures that persons involved in the transportation or repair can handle them safely. This applies also to hire equipment that has been in contact with any hazardous substance.

For information on the decontamination process refer CSBP document [Decontamination of Process Equipment \(DP-11-031-30\)](#).

6. PERSONAL PROTECTIVE EQUIPMENT

Risk assessment of all work **MUST** identify the PPE required for the job. PPE worn **MUST** comply with CSBP Standards.

The work permit for any task **MUST** specify any additional personal protective equipment requirements that are not part of the minimum standard for the area.

PPE will be provided for CSBP employees. The PPE Committee can authorise the introduction of any new or additional PPE required on site.

Note: Material Safety Data Sheets (MSDS) should be consulted to identify required PPE for chemical and biological hazards. Where there is any doubt contact a member of the Safety Department

CSBP highly recommends that jewellery **NOT** be worn by personnel working in plant areas and workshops due to the potential for chains, rings etc becoming tangled or caught in rotating equipment. The acidic nature of some products may also have an effect on jewellery, increasing the risk of injury or hazards.

For more information on the selection and use of PPE refer to CSBP document [Personal Protective Equipment \(GM-11-031-01\)](#) and Figure 1.

6.1 MINIMUM PPE

- a. Minimum personal protective equipment requirements throughout all CSBP operational areas are:
- Safety helmet.
 - Safety footwear (boots or shoes).
 - High visibility long-sleeved top fastened at the wrist (or hi-visibility vest over a long sleeved shirt) and long trousers. Yellow is the preferred colour for shirts.
 - Approved safety glasses.

Additional PPE may be required, such as:

- Hearing protection (earplugs or muffs)
- Gloves
- Dust mask (P2 minimum)

Note: Dark glasses must not be worn in low light environments (e.g. night time, inside plant areas, and inside vessels). Clear and tinted glasses are available in these situations.

- b. For Class 1, 2 and 3 products; refer to Figure 1 for the minimum PPE requirements.
- c. Contractors will possess the required items of approved personal protective equipment (complying with Australian and / or CSBP Standards) before starting work on site.

6.2 ADDITIONAL OR ALTERNATE EYE OR FACE PROTECTION

Contact lenses can worsen the effect of foreign bodies (dust, liquid and gas) in the eyes. Therefore contact lenses are not recommended within CSBP operational areas.

Additional protection for the face and eyes may include:

- Vented or non-vented goggles
- Welding masks
- Face shield
- Prescription safety glasses. For more information refer to CSBP document [Prescription Spectacles DP-11-031-07](#). Note: Overglasses are available to be worn over non-safety prescription glasses.

Most welding helmets are not impact rated and should not be used as a face shield.

6.2.1 DOUBLE EYE PROTECTION

All personnel conducting grinding, cutting and chipping work are required to wear double eye protection. Examples of these tasks include:

- Grinding with grinders, including the use of wire brush discs
- Cutting using cut off saws, cutting discs in grinders and quick cut masonry saws
- Chipping using needle guns and de-scalers

Double eye protection includes the use of safety glasses or mono-goggles with a face shield. The choice on whether to use mono-goggles or safety glasses will be task specific. As a guideline if there is a chance that particles may come from another direction than straight ahead, mono-goggles should be worn.

Goggles and glasses worn together do not constitute double eye protection, only face shields are rated for high impact and can withstand being struck by flying objects and particles such as shattered grinding or cutting discs. A face shield will also protect the entire face – not just the eyes.

6.3 HAND PROTECTION

Protection for the hands can be provided by wearing the appropriate leather, synthetic or rubber gloves. Gloves should not be worn where there is a risk of them getting caught on moving machinery.

It is vital that the correct glove is chosen for the task as different gloves may be required for specific tasks, this will be identified in the risk assessment. The table below is to be used as a guide. All these gloves are available from the stores.

HAZARD GROUP	TYPICAL OPERATIONS	RECOMMENDED GLOVES OR MITTENS
Heat and Abrasion	<ul style="list-style-type: none"> • Welding • Heat Treatment • Furnace operations 	<ul style="list-style-type: none"> • Black & Gold Welders
Sharp edged materials and objects	<ul style="list-style-type: none"> • Handling swarf and metal sheets • Handling undressed castings 	<ul style="list-style-type: none"> • Hyflex Dyneemall- 629 • Senslite 48-101
Abrasion <ul style="list-style-type: none"> • Heavy duty • Light duty 	<ul style="list-style-type: none"> • Handling bricks • Handling steel stock • Handling heavy duty packaging • Handling packaged goods • General labouring 	<ul style="list-style-type: none"> • Hyflex Dyneemall- 629 • Senslite 48-101 • Hyflex Dyneemall- 629 • Senslite 48-101
Chemicals (general) <ul style="list-style-type: none"> a. Acids, alkalis etc. b. Solvents c. Oils, petrol 	<ul style="list-style-type: none"> • Plant operation/testing • Acid dipping • Electrical component cleaning • Fibreglassing • Paint spraying • Gearbox oil change • Vehicle filling 	<ul style="list-style-type: none"> • Hyflex Dyneemall- 629 • Alpha Te58-535

6.4 BODY PROTECTION

Protection for the body can be provided by the following:

- Chemical splash suits
- Fully encapsulating chemical suits
- Leather aprons/welding jackets/leather spats
- Disposable overalls

6.5 RESPIRATORY PROTECTION

Selection of respiratory protection should be determined in the risk assessment and match the task. It can include:

- Disposable dust / mist masks (P2 minimum).
- Half or full face, air purifying respirators (e.g. canister filter).
- SABA – Supplied Air Breathing Apparatus
- SCBA – Self Contained Breathing Apparatus
- PAPR – Powered Air Purifying Respirator

For more information refer CSBP document [Respiratory Protection \(GM-11-031-05\)](#).




CLASS '1' PROTECTIVE CLOTHING		
<ul style="list-style-type: none"> • Safety helmet • Chemical goggles (vented goggles are acceptable) worn with a face shield • Heat resistant jacket or PVC jacket and trousers as appropriate • Appropriate gloves • Safety footwear 		<ul style="list-style-type: none"> • Ammonium nitrate melt and solution • Aqueous Ammonia • Fertiliser melts • Hot coating agent oil • Hot fuel oil • Molten coating wax • Steam & hot condensate
CLASS '2' PROTECTIVE CLOTHING		
<ul style="list-style-type: none"> • Safety helmet • Chemical goggles (vented goggles are acceptable) worn with a face shield • PVC waterproof clothing (jacket and trousers or overalls) • PVC gauntlet gloves or rubber gloves • Rubber boots 		<ul style="list-style-type: none"> • Fluorosilicic acid • Hydrochloric acid • Phosphoric Acid • Nitric acid • Sodium hydroxide • Sodium hypochlorite • Sulphuric acid • Scrubber liquors • Sodium cyanide solution and slurry • Sodium cyanide powder * • Methyldiethanolamine (MDEA) • Water treatment chemicals
CLASS '3' PROTECTIVE CLOTHING		
<ul style="list-style-type: none"> • Supplied air (full face piece) or self contained breathing apparatus • Full PVC overalls with elastic hood • PVC gauntlet gloves or rubber gloves • Rubber boots 		<ul style="list-style-type: none"> • Anhydrous ammonia • Chlorine • Hydrogen cyanide gas

Figure 1 - Minimum PPE for Class 1, 2 and 3 Products

A Standby person is required with all the above PPE

*** Full face mask with ABEK canister is required in this instance instead of chemical goggles worn with face shield.**



7. SAFE MANUAL HANDLING

Manual handling involves the use of the human body to lift, lower, push, pull, or carry loads.

A Take 5, at a minimum, **MUST** be completed prior to performing a manual handling task to assess the potential risks which may cause an injury to the individual.

There are no specified weight limits when lifting, as the risk will differ depending on the environment, PPE being worn and the position of the load, that is, height and distance of the load from the body. No employee should lift more than they think they can safely lift and should look to use a mechanical aid or seek assistance from other workers if they are unsure.

An employee should never attempt a lift greater than 25kg in standing or 4.5 kg from a seated position regardless of their strength.

When approaching a manual handling task the employee should consider the Strong Spine System™ principles:

1. No Surprises – Take 5 and think through the task before performing it.
2. Strong Spine – maintain a strong spine position throughout any manual handling task
3. Make a bridge – where appropriate make a bridge with an arm to reduce torque in a lift
4. Reduce the lever – keep loads as close to your body as possible – they are lighter there!
5. Team Lifting – where a mechanical aid is not possible talk through the lift before attempting a multiple person lift. Don't let go of the load unrepentantly either!
6. Brace the abdominals – remember to brace your core muscles by gently lifting your lower abdomen or pelvic floor
7. Strong Stance – spread your legs to give you better balance with the load
8. Don't Creep – be careful of positions that require you to flex for periods of time. If you can't eliminate this – be careful what you do next!
9. Good working heights – try to work at decent working heights where possible.
10. Prepare and Recover – stretch and warm up prior to and after a physical task – especially if you have not been doing much before attempting manual handling.

When taking equipment aloft, i.e. up a ladder or to a higher level, the lifting options are:

- a. a shoulder bag or backpack (for tools or other small items of equipment)
- b. rope system
- c. approved haulage system, which must have a brake system in place, for further advice contact a member of the Emergency Response Team.

8. WORK PERMIT SYSTEM

CSBP utilises a Work Permit System (GM-11-031-51) to:

- a. Authorise and control work other than work defined as routine.
- b. Ensure that hazards are identified and that appropriate controls are in place prior to work commencing and that they remain in place during the work.
- c. Provide a formal hand-over process to demonstrate that all hazards have been addressed.
- d. Ensure that personnel carrying out the work are aware of the exact scope of work and the hazard controls specified.
- e. Ensure impact of all work on other activities and the operations is understood.
- f. Provide a formal hand-back process to ensure the work area is safe to return to normal duties when the work is completed.

The Work Permit System applies to all employees, contractors and visitors to CSBP.

All work in CSBP operational areas requires a Work Permit, other than work nominated by the Area Manager as 'routine'. Routine work (that does not require a Permit) is defined for each area and shall be displayed in the Control Rooms and be signed by the Area Manager.

8.1 WORK PERMIT TAGGING

There are five different safety tags that apply within the Work Permit System:

- Work Permit Isolation Tag
- Common Isolation Tag
- Personal Danger Tag
- Testing and Jogging Tag
- Out of Service Tag

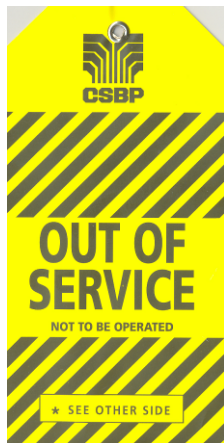
8.1.1 Information Tag

The blue and white **Information Tag** is to be used to provide additional information about an item or piece of equipment.

The Information Tag can be attached to an item or piece of equipment to provide helpful information or maintenance guidance without removing the item or equipment from service. Details of what work and when it is required are written on the tag.

Any person may attach an Information Tag. The Information Tag is to be removed when the information is no longer relevant.

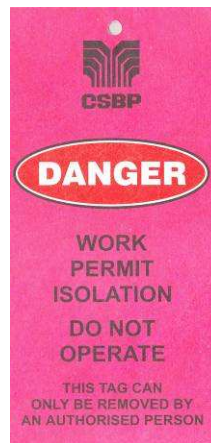
The Information Tag is not a Safety Tag and should not be used as such. For more information refer CSBP document [Information Tag \(GM-11-031-41\)](#).



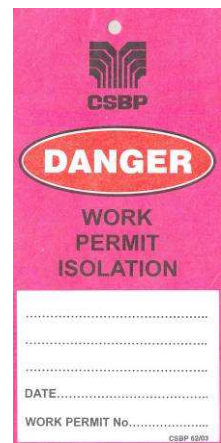
FRONT



BACK



FRONT



BACK



FRONT



BACK



FRONT



BACK



FRONT



BACK

Figure 2 – Work Permit Safety Tags

9. WORKING IN CONFINED SPACES

Work in a confined space requires rigorous safety considerations. Key concerns are the potential presence of atmospheric contaminants, explosive atmospheres or oxygen deficiency as well as engulfment by product or liquids. Other harmful agents, such as noise, mechanical equipment and heat are also potential safety and health hazards in confined spaces.

A confined space is an enclosed or partially enclosed space that is not intended or designed primarily for human occupancy, within which there is a risk of one or more of the following:

- a. An oxygen concentration outside the safe oxygen range.
- b. A concentration of airborne contaminant that may cause impairment, loss of consciousness or asphyxiation.
- c. A concentration of flammable airborne contaminant that may cause injury from fire or explosion.
- d. Engulfment in a stored free-flowing solid or a rising level of liquid that may cause suffocation or drowning.

Only competent personnel shall enter or be assigned as a watch person for a confined space. A competent person is one who has, through a combination of training, education and experience, acquired knowledge and skills enabling that person to correctly perform tasks associated with confined spaces. Training required for competence in Confined Space Entry by CSBP is:

- Passing the competency assessment associated with a Confined Space Entry course, which includes Monitoring Hazardous Atmospheres, developed to the National Competency Standard. Confined Space Entry training may be delivered either by CSBP or a Registered Training Organisation (RTO), which qualifies them to enter a confined space.

Confined Space Entry training SHALL be refreshed at intervals of no greater than two years. Employees and contractors who have acquired qualification from either CSBP or an RTO will be required to provide evidence of competency attained within the last 2 years.

All confined spaces MUST be gas tested prior to entry. Details of gas testing requirements are contained in CSBP document [Gas Testing \(GM-11-031-33\)](#). All personnel conducting gas testing MUST be trained in gas testing.

For more information about work in confined spaces, refer to CSBP document [Confined Spaces \(GM-11-031-52\)](#). All confined space work will be conducted under a Work Permit.

10. EXCAVATIONS AND PENETRATION

Excavation is defined as work by hand or mechanical means that disturbs the soil or other surface to a depth greater than 150 mm. The work includes:

- Digging holes or trenches
- Driving piles, posts or spikes
- Cutting concrete
- Driving of earthing electrodes

Penetration is defined as work including demolishing, removing, drilling, cutting or otherwise penetrating any floor slab, wall, ceiling, roof, partition or surface where the opposite side is not

visible and which may contain electrical cables. This work is always accompanied by a Work Permit and Excavation/Penetration Certificate if it occurs in any of the Plants and shall be required at the discretion of Field Engineering at all other times.

Excavation of any ground surface at Kwinana is an activity controlled by Field Engineering. A Work Permit will always be required.

Excavation and Penetration Certificates are administered by Field Engineering.

For more information on excavations refer CSBP document [Excavations \(GM-11-036-04\)](#).

11. HOT WORK

Hot work includes any work which could generate sparks or heat of sufficient intensity to ignite combustible gases, liquids or materials.

For more information on Hot Work refer to CSBP document [Hot Work \(GM-11-036-06\)](#).

11.1 WELDING

A work permit and a certificate for hot work shall be obtained before starting any welding, cutting or grinding outside of designated hot work areas.

A risk assessment MUST identify what screen, ventilation and PPE is required.

11.2 GRINDING, BUFFING & DRILLING



**A face shield as well as safety glasses/goggles
will be the minimum eye protection worn for all grinding operations.**

The operator will check the following before use:

- a. The correct flange and locking nut is in place for the type of disc being used
- b. The guard and handles are secure
- c. There are no defects or damage to the disc (any disc that has been dropped or become damp is thrown away)

The following precautions will be taken when grinding:

- a. Angle grinders will not be used unless they are fitted with suitable guards
- b. Pedestal / bench grinders / buffers will not be used unless they are fitted with a suitable guard and anchored
- c. All hand-held grinders will be fitted with a dead man (on / off) switch
- d. Respiratory protection will be worn when grinding or cutting magnesium, aluminium and aluminium bronze; the metallic dust from which can be hazardous



- e. Use of 7” or 9” grinders outside of workshop environments requires a JSA to be completed and authorised by the area Safety Advisor.
- f. An angle grinder should not be used as a cutting tool where a safer alternative is available.
- g. Keep the grinder at waist height during grinding, where possible.
- h. Stop the grinder at regular intervals for a short break to rest your arms and hands.
- i. Never put a grinder down until the disc stops rotating.
- j. Disconnect the power and place the grinder on the bench with the disc facing upwards when not in use.
- k. Secure the workpiece before grinding or buffing. DO NOT use a hand held grinder whilst u

For more information on Hot Work requirements, refer to CSBP document [Hot Work \(GM-11-036-06\)](#).

12. WORKING AT HEIGHTS

Take the following precautions when working at heights to reduce the risk of falling:

- a. Wherever practicable, position personnel behind permanent or temporary physical barriers.
- b. When it is a requirement to work at heights of where there is a risk of falling without permanent or temporary barriers a Job Safety Analysis MUST be undertaken prior to the work commencing.
- c. Other forms of physical protection for working at heights are crane work box, elevated work platform, swing stage scaffold / suspended scaffold and scissor lift.
- d. Where fall prevention barriers are not possible - fall protection systems are required, e.g. full harness and fall restraint system.
- e. Training, competent personnel only to use fall protection equipment that has been checked immediately before use and is clearly free from defects.
- f. All personnel working at heights MUST comply with CSBP document [Safe Working at Heights \(GM-11-031-02\)](#).

13. SCAFFOLDING AND LADDERS

13.1 SCAFFOLDING

All scaffolding used on site shall be erected by qualified personnel and comply with CSBP document [Safe Working at Heights \(GM-11-031-02\)](#).

It is a CSBP requirement for all platforms to be accessed via a self-closing gate.

Scaffolding should not inhibit the proper operation or access to safety and production equipment. Positioning of boards and staging supports will be planned so as not to obstruct access on walkways, fire equipment, eyewash and emergency showers, emergency shutoff or shutdown devices and alarm panels.



Personnel should not access any scaffolding structures without confirming it has a current “scaff” tag. Different areas at CSBP have different requirements for scaffolding boards:

Sodium Cyanide Production Facility	No aluminium ladders permitted
Ammonia/AN	Wooden planks permitted within AN plant – restrictions apply
Fertilisers	All types acceptable
Receivals & Despatch	No wooden boards in AN Despatch

Refer to the Plant Area for further information.

13.2 LADDERS

Observe the following rules when using ladders:

1. Only use portable ladders as a means of access or for light duties of short duration.
2. When working from a ladder a JSA is required and fall protection implemented where required.
3. Inspect ladders frequently and rectify defects immediately or tag as Out-Of-Service.
4. Ensure that the foot of the ladder is on a firm, level surface and at a safe distance from the vertical (1 metre for every 4 metres vertical).
5. Ladders are to be secured in place by tying off to prevent movement.
6. An attendant will be stationed at the foot of the ladder when required.
7. When using extension ladders, always have at least four rungs overlapping at the centre of the ladder.
8. Ensure that ladders protrude at least 1 metre above the platform/surface against which they are resting unless they are integrated into a scaffold arrangement that allows safe access.
9. Always face the ladder and use both hands when ascending and descending. Three points of contact should always be maintained while moving on a ladder.
10. Climbing whilst holding equipment or tools is not allowed. CSBP has a rope system available to be used to lift equipment or tools.

For more information about scaffolding and ladders refer CSBP document [Safe Working at Heights \(GM-11-031-02\)](#).

14. ELEVATED WORK PLATFORMS (EWP)

Only personnel deemed competent can operate a EWP. This competency forms part of the National Licence to Perform High Risk Work. They are to comply with the following safety requirements:

1. No person other than the authorised operator will travel on an EWP while it is in transit.
2. An EWP will not be loaded and operated in excess of its rated platform load capacity nor used as a crane.
3. Exiting the working platform in an elevated position will only be done, using a double lanyard hook-up system and with an authorised JSA.
4. An EWP will not be operated closer than six (6) metres from an exposed electrical conductor without prior approval from the electrical department.
5. Personnel working on the platform will keep their feet on the platform floor. They will wear an approved safety harness, attached by lanyard to an approved anchorage point located at the bottom of the work platform.

For more information on elevated work platforms (EWP), refer to CSBP document [Elevated Work Platforms \(GM-11-038-04\)](#).

15. ASBESTOS REMOVAL

Personnel involved in the removal of asbestos cement building products are specifically trained and will ensure that the work is undertaken in accordance with both company and statutory requirements.

For more information about asbestos removal, refer CSBP document [Asbestos Product Removal \(GM-11-031-20\)](#)

16. WORKING IN A HOT ENVIRONMENT



Personnel who experience profuse sweating, or feel clammy, together with dizziness, may be suffering from dehydration or heat stress and should immediately stop work, have a drink of water and seek medical assistance.

The following safety precautions will be taken when working in a hot environment where there is risk of heat stress:

1. Alternatives of work rescheduling, work rotation, cooling and other preventative methods shall be planned.
2. Outside work sites will be shaded as much as practicable.
3. Personnel working for extended periods in direct sunlight will wear broad-brimmed hats, or attachments to safety helmets, and sun block creams to protect the skin.
4. Personnel will self manage their health by taking adequate drink and rest breaks as dictated by the conditions and the task JSA.

For more information about working in a hot environment refer CSBP document [Safe Working in a Hot Environment \(GM-11-036-03\)](#).

17. CONVEYORS

The following general rules apply when working with or around conveyors:

1. Never work on or touch a conveyor that is moving.
2. Use conveyor walkways or crossovers to cross conveyors.
3. Before coming into contact or starting work on a conveyor, ensure that a Work Permit is obtained and that the conveyor is correctly isolated at the MCC.
4. All conveyors have safety lanyards designed to be activated by pushing or pulling in the event of an emergency.

18. EQUIPMENT GUARDING



No equipment or machinery will be operated with the safety guards removed.

Before any safety guards are removed (for example, for cleaning or maintenance) the equipment MUST be correctly isolated, locked out and tagged as per the Work Permit System.

Ensure that equipment safety guards are in the correct position before starting any equipment.

Report all missing guards and any unguarded pinch points, place an out of service tags where required.

19. HAND TOOLS

It is important that the correct tool is used for the job as the risk of injury increases if the incorrect tool is selected for the task. The tool selected MUST be suitable for the task and your personal capabilities.

Consider the following precautions:

- a. Check that the tool is in good condition
- b. As most hand tools conduct electricity, exercise extreme caution when working near electrical equipment or select insulated tools
- c. Do not leave tools on walkways, aisles, stairways or elevated places
- d. A Hot Work Certificate is required for the use of electrical hand tools in areas where ignition is a risk

20. SAFETY SIGNS

There are a range of safety signs throughout CSBP which are designed to inform personnel of the presence of hazards in the area.

Safety signs do not replace the need for a risk assessment. Safety signs are provided to guide and protect all personnel from exposure to hazards.

21. TEMPORARY BARRIERS

Barriers will be erected to stop people accessing areas that are hazardous. Signs and/or information tags to indicate the restrictions or actions required are placed on or near the barriers. Examples of temporary barriers are bunts or ropes, portable frames, mesh fences, warning posts with chains, ropes or highly visible tapes, scaffolding, traffic cones, hazard lamps and beacons .

A risk assessment will determine the type of appropriate temporary barrier to be used.

Hard barricades should be used when there is a risk of falling to a level below.

Only personnel assigned to the work are permitted in a barricaded area. When barriers are no longer required all barricades will be promptly removed.

22. FIRE EXTINGUISHERS

Portable fire extinguishers are intended as first response devices for fires of limited size. Basic instructions are listed on the labels of each extinguisher.

Fire hydrants, hoses, hose reels and associated equipment designated for emergency use will not be used for any other purpose. Only personnel trained in this equipment will use it in an emergency.

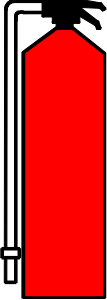

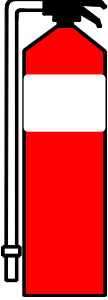

	WATER	FOAM	DRY CHEMICAL / POWDER	CARBON DIOXIDE	
					
A Ordinary Combustibles (Wood, Paper, Plastics)	YES MOST SUITABLE	YES	ABE	BE	YES (Limited Effectiveness)
			YES	NO	
B Flammable and Combustible Liquids	NO	YES	YES		YES
C Flammable Gases	NO	NO	YES		NO
E Fire Involving Energised Electrical Equipment	NO	NO	YES		YES
F Fire Involving Cooking Oils and Fats	NO	NO	ABE	BE	YES (Limited Effectiveness)
			YES	NO	

Figure 3 - Fire Extinguishers

23. ELECTRICAL SAFETY

All electric shocks **MUST** be reported immediately and the person **MUST** be medically reviewed.

Controls and safety requirements established include:

- a. Only personnel who hold a current Department of Energy and Safety Electrical Workers Licence are authorised to remove or change fuses.
- b. Access to Switch Rooms is restricted to authorised personnel only.
- c. Non-licensed personnel shall not directly access any live parts.
- d. Authorised personnel (e.g. Operators, Mechanical Fitters, and Instrument Fitters) are permitted to enter switch rooms when there is no direct access to live parts, as long as they have achieved competency as an Isolating Person under the Work Permit System.

For more information on access to Switch Rooms refer to CSBP document [Access to Switch Rooms \(GM-11-032-02\)](#).

23.1 ELECTRICAL EQUIPMENT TESTING

A colour coded tag system is used to ensure that all portable electrical equipment and extension leads are inspected quarterly or annually as required following the initial safety inspection and registration.

Only portable electrical equipment and extension leads with the current colour coded tag will be used at CSBP sites.

The colour coded tags are:

ENVIRONMENT TYPE	PERIOD	COLOUR
Type 1 Factories, workshops, places of repair manufacturing, assembly, maintenance or fabrication.	January - March	Red
	April - June	Green
	July - September	Blue
	October - December	Yellow
Type 2 Laboratories, health care and educational establishments, tea rooms, office kitchens, hotels and motel accommodation.	January - December	White with Black lettering
Type 3 Office environment where equipment is not subject to constant flexing of the supply cord.		

Electrical equipment and extension leads that are suspected of being defective in any way **MUST** not be used until the defect has been corrected. If an electrical defect is identified or suspected an "Out of Service Tag" is to be attached and repairs by an authorised repair person arranged.

23.2 ELECTRICALLY OPERATED POWER TOOLS AND RESIDUAL CURRENT DEVICES



All power tools used at CSBP will be fitted with deadman switches.

Protection against earth leakage current is mandatory when portable electrical equipment is in use at CSBP. Seek assistance from a trained electrician if unsure how to establish this protection.

For more information on electrical safety requirements refer to CSBP document [Electrical Appliance Testing and Tagging \(GM-11-038-06\)](#).

24. COMPRESSED GASES

24.1 GAS CYLINDERS

The following precautions are to be taken when working with gas cylinders:

1. Do not use cylinders unless you are sure of the contents.
2. Take care to prevent damage to cylinders and secure cylinders against movement or falling while in use, storage or transport.
3. Transport of cylinders will always be in the upright position where possible. Argon may be transported in the horizontal position as specified by the manufacturer as long as:
 - (a) the valve on the bottle is protected,
 - (b) the bottles are secured from rolling and
 - (c) the base of the cylinder is placed against the a solid object (i.e. the cab of a utility vehicle).
4. Cylinders are not to be lifted or lowered by mechanical means unless, they are contained in an appropriate type of box/cage.
5. Do not allow any form of heating that would raise the temperature above 45°C.
6. Keep cylinders, and in particular the valves, clean and free from grease and oil and do not use cylinders with dirty valves.
7. Close cylinder valves when cylinder is not in use and especially when the cylinder is empty.
8. Tag discharged cylinders, clearly mark them “MT” and store in a separate, dedicated area for return to the supplier.
9. Oxy actelyne cylinders MUST be fitted with flash back arrestors at both gauges and at the welding/cutting handpiece.

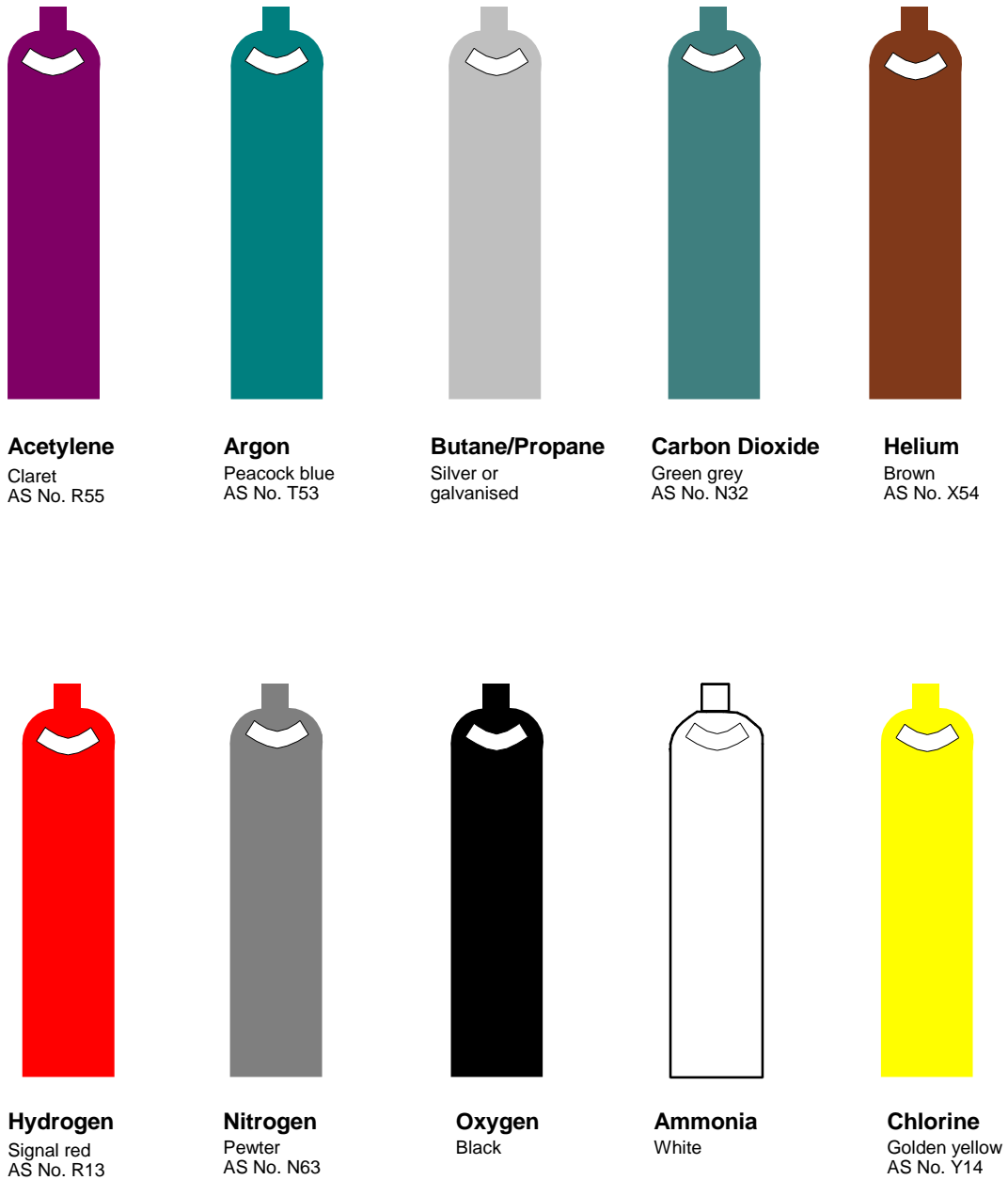


Figure 4 - Gas Cylinder Colour Codes for Gas used at CSBP

24.2 COMPRESSED AIR



Because of a danger of serious injury, compressed air shall never be used to blow dust, dirt or particles from the body, clothing or hair, or for personal cleaning purposes of any nature.

Take the following precautions when working with compressed air:

1. Do not use compressed air for practical jokes or skylarking. It is highly dangerous and strictly prohibited.
2. Using compressed air to clean down machinery must be conducted under controlled conditions, so as not to create hazards for other workers. Respiratory protection and eye protection **MUST** be worn by all personnel in the area.

For more information on safe use of compressed air refer CSBP document [Compressed Air Safety \(GM-11-031-22\)](#).

25. WORKING ALONE

The risk of injury or harm to people who work alone may be increased because of difficulties contacting others when assistance is required.

Emergency situations may arise because of the sudden onset of a medical condition, work related injury or illness, or a serious safety incident / hazard.

A person is defined as working alone if they cannot be seen or heard by another person and they cannot expect a visit from another person for some time. The minimum time a person has to be on their own for the person to be considered “alone” has not been set and each situation must be assessed based on the risks.

For example, a worker is alone when they:

- a. Work in a depot or site where there are no other employees.
- b. Work in a workplace when everyone else has gone home.
- c. Undertake maintenance in a vacant plant.
- d. Is called out at night to check on a security alarm when others are not present.

In the event that personnel are planning to work alone out of hours they are required to notify the Shift Supervisor by completing form [SF2291](#).

Personnel who are working alone will always have one form of mobile communication i.e. radio or mobile phone.

Personnel entering plant areas or site locations to work alone will inform the Control Room or if there is no Control Room their Supervisor.

For further information on working alone see [WorkSafe WA Guidance Note “Working Alone”](#).



26. FITNESS FOR WORK

26.1 FATIGUE

It is well documented that fatigue is a contributing factor in accidents on our roads, as well as in the workplace. Each person has individual sleep and rest requirements that they need to manage. Shift workers in particular need to focus on their sleep management.

Fatigue can occur in the workplace due to:

- a. Inadequate sleep in the days / weeks prior.
- b. Hard manual or physical work over an extended time.
- c. Illness / injury / lack of physical fitness / poor health.

It is important to manage your home environment to ensure quality sleep. On average people need 7 – 8 hours of sleep a night. If you miss some sleep, that is you are suffering from sleep debt - you need to catch up in the days that follow.

The maximum number of hours that can be worked on site within a 24 hour period is 16 hours. A worker who has completed 16 hours, or who has identified to their Supervisor that they are suffering from fatigue will be taken home (by taxi or another driver). A risk assessment MUST be undertaken when working 16 hours or more within a 24 hour period to identify and control fatigue related risks. A 10 hour break is required prior to returning to work.

ONCE FATIGUE SETS IN - THE ONLY CURE IS SLEEP

26.2 DRUGS AND ALCOHOL

It is an obligation of all employees, contractors and visitors to CSBP not to be impaired by alcohol or drugs. Anyone taking prescription medication that they know may affect their work performance is required to inform their Supervisor. If in doubt, seek guidance from the CSBP Medical Centre.

Any person on a CSBP site can be asked to submit to a drug and alcohol test either:

- a. Due to a cause, such as, serious incident or observed behaviours.
- OR
- b. Due to random testing.

Note: All motor vehicle and mobile equipment incidents on all CSBP sites will require the driver to be for cause tested.

It is not permitted to bring any alcohol or illegal drugs onto any CSBP site.

All drug and alcohol testing conducted at CSBP is in accordance with Australian Standard AS4308.

For more information refer to CSBP document [Drug & Alcohol Policy & Procedure \(GM-01-120-04\)](#)



26.3 PHYSICAL FITNESS AND INJURY

All employees and contractors will maintain themselves physically fit to undertake their role.

Anyone injured at work MUST report to the Medical Centre and their Supervisor immediately or at least within 24 hours. Injured employees will be rehabilitated by our on site medical staff to ensure a safe and quick return to pre-injury duties.

For more information refer to CSBP document [Rehabilitation Programme \(GM-01-120-03\)](#).

27. REFERENCES

- [Asbestos Product Removal \(GM-11-031-20\)](#)
- [Access to Switch Rooms \(GM-11-032-02\)](#)
- [Breaking Into Hazardous Pipelines \(GM-11-036-02\)](#)
- [Compressed Air Safety \(GM-11-031-22\)](#)
- [Confined Spaces \(GM-11-031-52\)](#)
- [Control of Workplace Hazardous Materials \(GM-11-037-05\)](#)
- [Decontamination of Process Equipment \(DP-11-031-30\)](#)
- [Drug & Alcohol Policy & Procedure \(GM-01-120-04\)](#)
- [Electrical Appliance Testing and Tagging \(GM-11-038-06\)](#)
- [Elevated Work Platforms \(GM-11-038-04\)](#)
- [Excavations \(GM-11-036-04\)](#)
- [Gas Testing \(GM-11-031-33\)](#)
- [Health & Safety Policy \(IF0406\)](#)
- [Hot Work \(GM-11-036-06\)](#)
- [Information Tag \(GM-11-031-41\)](#)
- [Kwinana Works Muster \(DP-11-015-01\)](#)
- [Personal Protective Equipment \(GM-11-031-01\)](#)
- [Prescription Spectacles \(DP-11-031-07\)](#)
- [Rehabilitation Programme \(GM-01-120-03\)](#)
- [Resolution of Safety and Health Issues \(DP-11-031-06\)](#)
- [Respiratory Protection \(GM-11-031-05\)](#)
- [Safe Working at Heights \(GM-11-031-02\)](#)
- [Safe Working in a Hot Environment \(GM-11-036-03\)](#)
- [Take 5" and Job Safety Analysis Risk Assessment \(GM-11-031-23\)](#)
- [Work Permit System \(GM-11-031-51\)](#)
- [After Hours Work Notification \(SF2291\)](#)
- [WorkSafe WA Guidance Note "Working Alone"](#).