



Hot Work Procedure

1. Purpose

The WA Country Health Service (WACHS) is committed to providing and maintaining a safe work environment. Under the [Work Health and Safety Act 2020](#) (WA) (the Act), WACHS has a primary duty of care to ensure, so far as is reasonably practicable, the health and safety of workers (while those workers are at work), as well as to ensure that other persons are not put at risk from work carried out as part of WACHS's business or undertaking.

The purpose of this Hot Work procedure is to mitigate the risk of personal injury or death and damage to property.

This procedure must be followed when a person is conducting hot work such as grinding, welding, thermal or oxygen cutting or heating, and other related heat or spark producing operations. Performing hot work in an area where flammable liquids, vapours, gases, combustible materials, dust, fibres, or other explosive substances are present poses a significant risk of fire or explosion. This document outlines the process to be applied to ensure all personnel maintain a safe working environment.

2. Procedure

This procedure applies to all sites and workers who are required to perform hot work. This procedure has been developed in accordance with the WorkSafe [Hot work - fire safety essentials](#) and WorkSafe [Code of Practice: How to manage work health and safety risks](#).

2.1 Risk Management

Risk assessments are completed by the worker and Nominated Site Delegate of the workplace by completing a [Job Hazard Analysis Form](#) (JHA) and/or [Safe Work Method Statement](#) (SWMS) and following the WACHS [Job Hazard Analysis Procedure](#) or WACHS [Safe Work Method Statement Procedure](#) to ensure all hazards are identified, and procedures are written and followed to control identified hazards.

The risks associated with hot work are to be controlled by hierarchy of control. It is important to constantly monitor and review control measures to ensure they continue to prevent or control exposure to hazardous acts or conditions.

Before work commences, all workers new to the task should be briefed on the processes to be followed and the need to observe all safety requirements. If the scope of work changes or the efficiency of an existing control is reduced, work is to be stopped immediately, a review conducted, and necessary changes made to the [JHA](#) or [SWMS](#) and associated work practices. The work can recommence once this process has been completed.

All [JHAs](#) or [SWMS](#) completed for hot work tasks must be held at the job whilst the task is being undertaken. Once the job has been finalised, they must be filed as per the local area procedures.

2.2 Documentation

Prior to commencing hot work all documentation must be obtained and relevant permission approved.

Evacuation Procedure

The purpose of the Evacuation Procedure is:

- To provide all workers with adequate instruction on how to safely evacuate an area in case of a fire or emergency.

Risk Assessment for the scope of work being conducted

The risk assessment could be in the form of a [SWMS](#) or a [JHA](#). The purpose of the risk assessment is to:

- assist the Nominated Site Delegate in determining hazards associated with hot work and specific to the scope of work
- enable the Nominated Site Delegate (PCBU) to make informed decisions to maintain the safety of the workers and avoid events which have the potential to negatively impact.

Completed Documentation

All completed documentation must be maintained and retained as per the WACHS [Corporate Recordkeeping Compliance Policy](#).

2.3 Selecting Appropriate Equipment

All equipment should be selected based on the hazard assessment and the task being performed. Fire resistant clothing, boots, gloves, eye protection and respiratory equipment should be used where identified in the risk assessment.

When using oxy equipment flashback arrestors must be used on the operator's side of each regulator connection or discharge of a manifolded cylinder pack and to the blowpipe.

Check all equipment and hoses regularly for damage, faults or leaks and conduct regular maintenance to reduce the risk of gas leaks.

Appropriately secure gas bottles in an upright position and protected them from damage or the uncontrolled release of its contents while being used, moved or stored.

When welding refer to Australian Standard AS1674.1-1997 Safety in welding and allied processes – Part 1: Fire Precautions. The standards can be accessed via the [WACHS Library](#).

Additionally, workers must wear the appropriate Personal Protective Equipment (PPE) as identified in the [JHA](#) or [SWMS](#) form.

Provide suitable and accessible firefighting equipment in the work area. This must be checked regularly and tagged to indicate currency of test date/period.

The sentry must comply to PPE requirements as per the [JHA](#) or [SWMS](#). This is in case of an emergency or urgent need for assistance.

If gas monitoring is required, gas monitors must be calibrated and bump tested as per manufacturers specifications.

The person conducting a business or undertaking (PCBU) that provides equipment must ensure that the equipment is suitable for its intended use, inspected and approved before use to ensure it is in good working condition. It must be calibrated and maintained as per manufacturer specifications. Defective or damaged equipment should be removed immediately and repaired or replaced.

2.4 Training Competency and Records

Nominated Site Delegate

Persons' in Control who are managing works are required to complete the WACHS Hot Works Toolbox and WACHS [JHA](#) online training both available on the WACHS Learning Management System.

Gas Tester

Workers intending to undertake this position must be trained in testing gas in the atmosphere.

Hot Work Sentry

Workers intending to undertake this position must be trained in using first attack firefighting equipment.

Note, in addition to the above, all workers intending to undertake work need to be suitably trained and possess qualifications and licenses relevant to the scope of work being conducted.

Contractors are required to upload their qualification onto the WACHS Online Contractor Induction during induction and WACHS workers are required to provide their qualification to their manager for record keeping.

2.5 Isolations

Before any work can commence, any electrical and mechanical isolations are required to be placed and verified as per WACHS [Lockout and Tagout Works Procedure](#).

Refer to the WACHS [Lockout and Tagout Works Procedure](#) for any Lockout and Tagout non-compliances e.g. person lock has been left on.

2.6 Conducting Hot Work

Multiple stakeholders are required for the efficient, and successful management of hot work. It is important to establish who these stakeholders are early and ensure clear and concise communication throughout the process. In turn, this creates a proactive work environment and aids in foreseeing any potential risks or delays.

Preparation

As soon as hot work is scheduled, preparation of the following is required prior to the scheduled date and time.

Documentation

- [SWMS/JHA](#) – Scope of Work
- Evacuation Procedure

Signage

Hot work signage must be erected to advise other workers of the hot work in progress.



Barricading

Barricading must be used to ensure no unauthorised access is granted to the designated hot work area. When erecting barricade consideration must be given to any areas which may be affected below, above or adjacent to the hot work area as sparks, cut offs, slag and electrode stubs may fall from height or project from the immediate work area.

Hot work on or near drums, tanks, pipes, vessels

Prior to beginning any hot work on the above the following must be followed:

- Identify - previous contents and check material safety data sheet for that substance
- Remove - caps, bungs and drain
- Clean – method depends on the previous contents and circumstances
- The following cleaning methods may be used: water washing, steam cleaning, use of chemical solutions, mechanical cleaning, chemical cleaning and/or purging.
- If equipment is divided into two or more compartments (e.g. a split fuel tank), each
- compartment requires to be cleaned in the same manner, even if the hot work is only carried out on one component
- Inspect/test – for the presence of flammable gas or vapour ensure the concentration of the flammable gas or vapour is less than 5 percent of its lower explosion limit (LEL)
- Displace – as it is difficult to fully remove and detect residues of flammable gases and vapours in seams or crevices, displace the air with water or an inert gas.

Combustible hazards

Identify and control any fire hazard inside and outside the work area, including flammable or combustible liquids, gases, vapours, dusts, fibres, wood, paper, textiles, packaging, plastics, tyres, dry grass or other substances within 15 metres of the hot work.

Consider other relevant hazards inside or outside the hot work area, for example the proximity of other staff, changing circumstances, environmental factors such as wind condition and temperature.

**ATTENTION**

PRIOR TO CONDUCTING HOT WORK
Check local council directives on current fire and hot work restrictions.

Ventilation

When conducting welding and oxy cutting in a work area with poor ventilation ensure adequate fume extraction is in place as close as practicable to the point where the welding or allied process is done.

Consideration must be given to any intake vents which are close by and may capture fumes created by the hot work. If stipulated, gas monitoring must be conducted.

On further guide on how to manage risk refer to WorkSafe [Code of Practice: How to manage work health and safety risk](#).

Completing Hot Work

A hot work sentry must be always present when hot work is being completed. The sentry must monitor the area for 30 minutes after the hot work has stopped to ensure no smouldering materials remain after hot work has been completed.

Adequate, accessible and serviceable fire fighting equipment must be in the work area prior to hot work commencing.

If gas monitors are being used and the monitor alarms, all work must cease until the work area atmosphere is deemed safe.

Handover

When an area has been deemed to require atmosphere testing, atmospheric levels shall be within the below levels. A qualified gas tester must conduct and verify these levels. The acceptable limit for Volatile Organic Compounds (VOCs) is <300ppm for a workplace containing known sources of fuel. This represents 5% of the Lower Explosive Limit (LEL).

O ₂ >19.5 up to <23.5%	LEL <5% LEL	H ₂ S <10 ppm	CO <30 ppm	VOCs
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Should readings exceed the above limits, the work area should be allowed to ventilate before a re-test to be conducted and handover to take place.

If a gas monitor alarms, work must cease immediately and must not recommence until the atmosphere has been deemed safe by conducting additional gas testing and ventilation has been assessed and confirmed.

Completing of Work

On completion of work the area must be reinstated to ensure the area is safe and left as per WACHS standards.

All signage and barricading must be removed from the work area. Any temporary signage or tape must be disposed of.

Hand Back

Upon the Nominated Site Delegate receiving confirmation that all scope of work has been completed the Nominated Site Delegate is to initiate the hand back process.

Hand Back Process

The below process is to be followed:

1. Scope of work has been completed as per work order.
2. Nominated Site Delegate completes a final inspection (if required).
3. Nominated Site Delegate accepts completed work.
4. Workplace is reinstated back to its original state.
5. Work area is handed back to Nominated Site Delegate
6. All hot work documentation is to be maintained and retained as per the WACHS [Corporate Recordkeeping Compliance Policy](#).

2.7 Failure or Breach of Hot Work Procedure

If there is a hot work procedure breach:

- the Facility Maintenance Manager/Senior Maintenance Supervisor will investigate the alleged breach and possible reasons for the breach
- complete a WACHS [Safety Risk Report Form](#) (SRRF)
- determine appropriate action to be taken.

Hazards and incidents must be reported in line with the WACHS [Hazard and Incident Management Procedure](#).

3. Roles and Responsibilities

The **Person Conducting a Business or Undertaking (PCBU)** is responsible for:

- ensuring workers complete required inductions
- providing training and supervision information
- ensuring workers have been trained or deemed competent, providing PPE and usage guidelines
- ensuring that equipment used meets standards and is regularly inspected and maintained
- establishing and maintain safe work practices.

The **Regional Facility Manager** is responsible for:

- establishing and maintaining safe work practices
- selecting the Nominated Site Delegate; supervisor or manager or nominated delegate
- authorisation of works to begin when risks are high or intolerable
- managing and overseeing this procedure

- operational processes being undertaken and oversight of compliance.

The **Nominated Site Delegate**, as nominated by Regional Manager Infrastructure Support Services (RMIS), is responsible for:

- ensuring workers complete required inductions
- providing information, training, and supervision
- verifying workers have necessary licences and training (copies must be obtained and retained)
- ensuring gas monitors are calibrated as per OEM manual (copies must be obtained and retained)
- providing Hot Work procedures and ensuring they are followed
- providing PPE and usage guidelines
- ensuring risk assessments have been conducted before the start of any hot work
- ensuring that equipment specific instructions [SWMS](#) are developed and inspected periodically (at least annually).
- Report hazards and incidents in line with the WACHS [Hazard and Incident Management Procedure](#).

The **Regional Work Health Safety and Security Manager** is responsible for providing:

- advice to managers and supervisors on Hot Work requirements in the workplace as it relates to monitoring and compliance
- advice and consulting with managers and staff on how to manage hazards and risks that have been identified and raised via [SRRF](#) reporting

The **Hot Work Sentry** is responsible for:

- keeps watch for any potential fire hazards or potential fires.
- ensuring that the initial emergency response equipment is available and serviceable including but not limited to the appropriate fire extinguishers, process water or fire hose rolled out and water is proved
- remove combustible material, install fire blankets and conduct pre-wetting
- halting the work and informing of any changes in conditions or incompatible activities that may negatively impact the work area or surrounding areas
- activating the emergency alarm as necessary

Workers (Contractors, Employees and Volunteers) are responsible for:

- performing risk assessment
- using Hot Work procedures and to control hazardous energies
- taking reasonable care of their own and others' safety and health
- undertaking the relevant training
- cooperating with PCBU in carrying out safety and health requirements

All staff are required to comply with the directions in WACHS policies and procedures as per their roles and responsibilities. Guidelines are the recommended course of action for WACHS and staff are expected to use this information to guide practice. If staff are unsure which policies procedures and guidelines apply to their role or scope of practice, and/or are unsure of the application of directions they should consult their manager in the first instance.

4. Monitoring and Evaluation

Monitoring for this document is conducted by the People Capability and Culture and Infrastructure and Environment Directorates to ensure compliance across all WACHS sites. This involves periodic reviews of the following:

- comparison of risk assessments with work orders raised in Agility
- periodic assessment of site-specific registers, including monitoring inspection and maintenance frequency
- regular assessment of the Online Contractor Induction System to ensure that contractors have been inducted according to WACHS expectations for safe working practices.

Evaluation of this document will be undertaken collaboratively by the People Capability and Culture and Infrastructure and Environment Directorates utilising the outcomes of periodic review and auditing data as well as stakeholder feedback.

5. References

Australian Standard AS1674.1-1997 Safety in welding and allied processes – Part 1: Fire Precautions

WACHS [Corporate Recordkeeping Compliance Policy](#)

[Health Services Act 2016](#) (WA)

[Hot work - fire safety essentials](#)

[Integrity Policy Framework](#)

[Work Health and Safety \(WHS\) Regulations 2022](#) (WA)

[Work Health and Safety Act 2020](#) (WA)

WorkSafe [Code of Practice: How to manage work health and safety risk](#)

6. Definitions

Term	Definition
Combustible Hazards	The potential hazards stemming from flammable, inflammable, and combustible materials extend beyond mere burns.
Hazard	A situation or item that has the potential to harm people, property or the environment
Hot Work	Hot work includes activities such as grinding, welding, thermal or oxygen cutting or heating, and other related heat or spark producing operations.
Hot Work Sentry	An individual who monitors the work area for any potential hazards or risk of fire. They may also be referred to as a fire watch, fire sentry, fire spotter.
Job Hazard Analysis form (JHA)	A document that outlines work activities to be carried out at a workplace into logical job steps, identification of hazards

	associated with each step and the controls for those hazards.
Personal Protective Equipment (PPE)	Equipment and clothing that is used or worn by an individual person to protect themselves against, or minimise their exposure to, workplace risks. It includes items such as face masks and respirators, coveralls, goggles, helmets, gloves and footwear.
Person Conducting Business or Undertaking (PCBU)	PCBU conducts a business or undertaking alone or with others. WACHS is considered a PCBU.
Risk	The likelihood and consequence of injury or harm occurring.
Risk Assessment	A systematic process of evaluating the potential risks that may be involved in a task or piece of equipment and the likelihood of a hazard causing harm to a person.
Risk	The likelihood and consequence of injury or harm occurring.
Risk Assessment	A systematic process of evaluating the potential risks that may be involved in a task or piece of equipment and the likelihood of a hazard causing harm to a person.
Work	Any activity, physical or mental, carried out in the course of a business, industry, commerce, an occupation or a profession.
Worker	Any person who carries out work for a person conducting a business or undertaking, including work as an employee, contractor or subcontractor (or their employee), self-employed person, outworker, apprentice or trainee, work experience student, employee of a labour hire company placed with a 'host employer' or a volunteer.
Workplace	Means any place where a person works, including residences provided to support works

7. Document Summary

Coverage	WACHS-wide
Audience	All staff including contractors
Records Management	Non Clinical: Corporate Recordkeeping Compliance Policy
Related Legislation	Health Services Act 2016 (WA) Work Health and Safety Act 2020 (WA) Work Health and Safety (General) Regulations 2022 (WA)
Related Mandatory Policies / Frameworks	<ul style="list-style-type: none"> • MP 0006/16 Risk Management Policy • Risk, Compliance and Audit Framework • Work Health and Safety Framework • Integrity Policy Framework
Related WACHS Policy Documents	<ul style="list-style-type: none"> • Hazard and Incident Management Procedure • Job Hazard Analysis Procedure • Safe Work Method Statements Procedure • Work Health and Safety Policy
Other Related Documents	<ul style="list-style-type: none"> • DEMIRS WorkSafe -Hot work - fire safety essentials
Related Forms	<ul style="list-style-type: none"> • Job Hazard Analysis Form • Safe Work Method Statement • Safety Risk Report Form
Related Training	Nil
Aboriginal Health Impact Statement Declaration (ISD)	ISD Record ID: 3546
National Safety and Quality Health Service (NSQHS) Standards	1.07, 1.08, 1.09, 1.10, 1.20, 1.21, 1.22, 1.25, 1.29, 131
Aged Care Quality Standards	Nil
Chief Psychiatrist's Standards for Clinical Care	Nil
Other Standards	Australian Standard AS1674.1-1997 Safety in welding and allied processes – Part 1: Fire Precautions (accessed via the WACHS Library)

8. Document Control

Version	Published date	Current from	Summary of changes
1.00	13 December 2024	13 December 2024	<ul style="list-style-type: none"> New procedure

9. Approval

Policy Owner	Executive Director Infrastructure and Environment
Co-approver	Executive Director People Capability and Culture
Contact	Director Infrastructure
Business Unit	WACHS Infrastructure and Environment
EDRMS #	ED-CO-24-475141

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