

Hot Brazing | SAFE WORK METHOD STATEMENT (SWMS)

TASK OR ACTIVITY: Hot Brazing

| | | |
|-------------------|--------|--------|
| Business Name: | ABN: | SWMS# |
| Business Address: | | |
| Contact Person: | Phone: | Email: |

THIS SAFE WORK METHOD STATEMENT IS APPROVED BY THE PCBU OF THE PROJECT

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a safe work method statement (SWMS) is prepared before the proposed work starts.

| | | |
|---|--------|--------|
| Full Name: | | |
| Signature: | Title: | Date: |
| Details of the person(s) responsible for ensuring implementation, monitoring compliance of the SWMS as well as reviews and modifications of the SWMS. | | |
| Full Name: | Title: | Phone: |

ALL PERSONNEL PARTICIPATING IN ANY ACTIVITY ON THIS SWMS MUST HAVE THE FOLLOWING COMMUNICATED

Safety meetings or toolbox talks will be scheduled in accordance with legislative requirements to first identify any site hazards, then to communicate those hazards and then to further take steps to either eliminate or control each hazard.

If an incident or a near miss occurs, all work must stop immediately. Depending on the severity of the incident, a meeting will be called with all workers to amend the SWMS if required. The meeting may also be an educational opportunity.

Any changes made to the SWMS after an incident or a near miss must be approved by the Person Conducting Business or Undertaking and communicated to all relevant personnel.

The SWMS must be kept and be available for inspection at least until the work is completed. Where a SWMS is revised, all versions should be kept. If a notifiable incident occurs in relation to which the SWMS relates, then the SWMS must be kept for at least two years from the occurrence of the notifiable incident.

NAME OF ALL RELEVANT PERSONNEL WHO HAVE BEEN CONSULTED AND COMMUNICATED TO IN THE DEVELOPMENT AND APPROVAL OF THIS SWMS

CLIENT OR PRINCIPAL CONTRACTOR DETAILS

| | |
|--|----------------|
| Client: | SCOPE OF WORKS |
| Project Name: | |
| Project Address: | |
| Project Manager: | |
| Contact Phone: | |
| Date SWMS supplied to Project Manager: | |

ANY HIGH-RISK CONSTRUCTION WORK BEING CARRIED OUT

- | | |
|--|--|
| <input type="checkbox"/> involves a risk of a person falling more than 2 meters | <input type="checkbox"/> is carried out on or near pressurised gas mains or piping |
| <input type="checkbox"/> is carried out on a telecommunication tower | <input type="checkbox"/> is carried out on or near chemical, fuel or refrigerant lines |
| <input type="checkbox"/> involves demolition of an element of a structure that is load-bearing | <input type="checkbox"/> is carried out on or near energised electrical installations or services |
| <input type="checkbox"/> involves demolition of an element related to the physical integrity of a structure | <input type="checkbox"/> is carried out in an area that may have a contaminated or flammable atmosphere |
| <input type="checkbox"/> involves, or is likely to involve, disturbing asbestos | <input type="checkbox"/> involves tilt-up or precast concrete |
| <input type="checkbox"/> involves structural alteration or repair that requires temporary support to prevent collapse | <input type="checkbox"/> is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor |
| <input type="checkbox"/> is carried out in or near a confined space | <input type="checkbox"/> is carried out in an area of a workplace where there is any movement of powered mobile plant |
| <input type="checkbox"/> is carried out in/near a shaft or trench deeper than 2m or tunnel involving use of explosives | <input type="checkbox"/> is carried out in areas with artificial extremes of temperature. |
| <input type="checkbox"/> is carried out in or near water or other liquid that involves a risk of drowning. | <input type="checkbox"/> involves diving work. |

ANY HIGH-RISK MACHINERY OR EQUIPMENT NEARBY

| RISK MATRIX | | | | | | | | | |
|----------------|---------------|---------------|---------------|------------|--------------|----------------|-----------------------------------|--|--|
| LIKELIHOOD | INSIGNIFICANT | MINOR | MODERATE | MAJOR | CATASTROPHIC | SCORE | ACTION | HEIRARCHY OF CONTROLS | |
| ALMOST CERTAIN | 3 HIGH | 3 HIGH | 4 ACUTE | 4 ACUTE | 4 ACUTE | | | <p>Elimination Remove the hazard.</p> <p>Substitution Replace the hazard.</p> <p>Isolation Isolate People from the hazard</p> <p>Engineering Isolate the hazard.</p> <p>Administrative Change the work.</p> <p>PPE</p> | |
| LIKELY | 2 MODERATE | 3 HIGH | 3 HIGH | 4 ACUTE | 4 ACUTE | 4A ACUTE | DO NOT PROCEED | | |
| POSSIBLE | 1 LOW | 2 MODERATE | 3 HIGH | 4 ACUTE | 4 ACUTE | 3H HIGH | Review before work starts. | | |
| UNLIKELY | 1 LOW | 1 LOW | 2 MODERATE | 3 HIGH | 4 ACUTE | 2M MODERATE | Ensure control measures in place. | | |
| RARE | 1 LOW | 1 LOW | 2 MODERATE | 3 HIGH | 3 HIGH | 1L LOW | Monitor and keep records | | |

Notes on Hierarchy of Controls: Elimination methods are the most effective and preferred when controlling a hazard. Substitution is the second most effective method of controlling a hazard. Engineering by isolation is the third most effective, while Administrative Controls by changing the work is the fourth most effective method. PPE (Personal Protective Equipment) is the least effective method.

| PERSONAL PROTECTIVE EQUIPMENT (PPE) | | | | | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Select the appropriate PPE above suitable for the equipment used or the job task being performed (if applicable). | | | | | | | | | | | |
| FOOT PROTECTION | HAND PROTECTION | HEAD PROTECTION | HEARING PROTECTION | EYE PROTECTION | RESPIRATORY PROTECTION | FACE PROTECTION | HIGH-VIS CLOTHING | PROTECTIVE CLOTHING | FALL PROTECTION | SUN PROTECTION | HAIR/JEWELLERY SECURED |
| | | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other PPE Required: | | | | | | | | | | | |
| Permit or Licenses Requirements | | | | | | Mandatory Qualifications and Training | | | | | |
| | | | | | | | | | | | |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---------------------|-------------------------------------|--------------|---|---------------|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| 1. Preparation | Excessive heat, Inhalation of fumes | 2M | <ul style="list-style-type: none"> - Conduct a risk assessment to identify potential hazards and implement appropriate controls before starting. - Ensure all workers are trained in hot brazing techniques and understand the associated risks, including heat and fumes. - Provide and enforce the use of personal protective equipment (PPE) such as heat-resistant gloves, long sleeves, safety goggles, and face shields. - Set up adequate ventilation system or use local exhaust ventilation to minimise fume inhalation and ensure good air quality in enclosed spaces. - Use portable fans or open windows to disperse heat and maintain a comfortable working environment. - Regularly monitor air quality levels for hazardous fumes and gases to ensure they stay within safe exposure limits. - Implement a strict housekeeping regimen to keep work areas free from combustible materials that could catch fire due to excessive heat. - Clearly mark hot surfaces and areas to prevent accidental contact and burns. - Have fire extinguishers and first-aid kits readily available, and ensure all workers know how to use them in case of an emergency. - Schedule regular breaks during brazing operations to prevent fatigue and heat stress among workers. | 1L |
| 2. Equipment Set Up | Fire risk, Inadequate ventilation | 3H | <ul style="list-style-type: none"> - Conduct a pre-job risk assessment to identify specific fire risks in the work area. - Ensure all flammable materials are removed from the vicinity of the brazing operation. - Use fire-retardant materials to shield any immovable flammable objects near the work area. - Set up appropriate fire extinguishing equipment, such as water, CO2, or dry chemical extinguishers, within easy reach. - Assign a trained fire watch personnel to monitor the site during and after hot brazing activities. - Implement proper ventilation by using fans or exhaust systems to dissipate fumes and smoke generated during brazing. - Ensure all ventilation systems are checked and functional before commencing work. - Limit the number of people in the immediate area to reduce exposure to potential hazards. - Post signage indicating "Hot Work in Progress" to alert personnel of ongoing brazing activities. - Provide appropriate personal protective equipment (PPE) such as gloves, aprons, face shields, and respirators for workers involved in brazing. - Test gas lines and connections for leaks prior to equipment start-up using soapy water or a gas detection device. | 2M |

| | | |
|------------------|----|---|
| | | <ul style="list-style-type: none"> - Establish an emergency response plan that includes procedures for fire incidents. |
| al, Contaminated | 2M | <ul style="list-style-type: none"> - Conduct a thorough review of the brazing specifications and required materials are selected for the specific application. - Implement a strict materials verification process, including check documentation, to ensure compliance with standards. - Use materials storage protocols to prevent contamination; store pollutants or explosive substances. - Implement a colour-coding or tagging system for easy identification of incompatible materials. - Train workers on material handling best practices and the importance of specific tasks. - Inspect all materials before use, looking out for signs of contamination that could compromise the brazing quality. - Limit access to material storage areas to authorised personnel only to prevent contamination or misuse. - Schedule regular supplier audits to ensure they maintain high-quality standards. - Designate a quality control officer to oversee the selection and proper adherence to safety protocols. - Utilise protective coverings or sealants on stored materials that are exposed to environmental contaminants. - Maintain a documented record of material sources, inspections, and accountability in case of issues. |

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| | | | <div>SAMPLE</div> <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> | |
| 5. Cooling Down | Contact burns, Fire hazard due to hot residues | 3H | <div>SAMPLE</div> <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> | 2M |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
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| | | | | |
| 6. Inspection | Cuts from sharp edges, Hazardous noise levels | 2M | | 1L |
| 7. Clean Up | Slips and falls from spills, Cuts from sharp objects | 2M | | 1L |

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| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---------------------|--|--------------|--|---------------|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | <div>SAMPLE</div> | |
| 11. Post-Operation | Residual heat burns, Fire hazard from hot residues | 3H | | 2M |

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SAMPLE

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| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|------------------------|---|--------------|---|---------------|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| 16. Decommissioning | Electric shock, Toxic emissions | 4A | <div>SAMPLE</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> | 3H |
| 17. Repair/Replacement | Use of unsuitable spare parts, Improper methods | 4A | <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> <div>[REDACTED]</div> | 3H |

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| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|----------------------|---|--------------|---|---------------|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> | |
| 20. Regular Auditing | Lapses in auditing, Non-adherence to compliance standards | 2M | <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> | 1L |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
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SAMPLE

EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES IF ANY STATE THAT ARE NOT APPLICABLE

Queensland & Australian Capital Territory

Work Health and Safety Act 2011

Work Health and Safety Regulations 2011

Legislation QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws>

Codes of Practice QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice>

Legislation ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations>

Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

New South Wales

Work Health and Safety Act 2011

Work Health and Safety Regulations 2017

Legislation NSW: <https://www.safework.nsw.gov.au/legal-obligations/legislation>

Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-codes-of-practice>

Northern Territory

Work Health and Safety (National Uniform Legislation) Act 2011

Work Health and Safety (National Uniform Legislation) Regulations 2011

Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>

Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

South Australia

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

Legislation for SA: <https://www.safework.sa.gov.au/resources/legislation>

Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

Tasmania

Work Health and Safety Act 2012

Work Health and Safety (Transitional and Consequential Provisions) Act 2012

Work Health and Safety Regulations 2012

Work Health and Safety (Transitional) Regulations 2012

Legislation for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations>

Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.

Victoria

Occupational Health and Safety Act 2004

Occupational Health and Safety Regulations 2017

Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>

Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

Western Australia

Work Health and Safety Act 2020

Work Health and Safety Regulations 2022

Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>

Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

Safe Work Australia Links

Law and Regulation (All States): <https://www.safeworkaustralia.gov.au/law-and-regulation>

Model Codes of Practice: <https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice>

Model Codes of Practice

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work

SIGNATORIES OF THE SAFE WORK METHOD STATEMENT

The signed and dated personnel listed below have cooperated in the consultation and development of this Safe Work Method Statement which has been approved by the Person/s Conducting a Business or Undertaking (PCBU). In signing this Safe Work Method Statement each individual acknowledges and confirms that they have read this SWMS in full, having raised any questions for items on this Safe Work Method Statement that require clarification, and confirms that they are competent, skilled and knowledgeable for the task assigned to them. Every person acknowledges that they have received the relevant training and qualifications where required, before carrying out any work contained in this Safe Work Method Statement. By signing this Safe Work Method Statement each individual agrees to work safely, to follow any safe work instructions which are provided, and agrees to use all Personal Protective Equipment where appropriate.

| Worker Name | Signature | Date |
|-------------|-----------|------|
| | | |
| | | |
| | | |
| | | |
| | | |

SAFE WORK METHOD STATEMENT MONITORING AND REVIEW

The SWMS must be reviewed regularly to make sure it remains effective and must be reviewed (and revised if necessary) if relevant control measures are revised. The review must be carried out in consultation with workers (including contractors and sub-contractors) who may be affected by the operation of the SWMS and their health and safety representatives who represent that work group at the workplace.

When the SWMS has been revised the PCBU must ensure that all persons involved with the work are advised that a revision has been made and how they can access the revised SWMS, including all persons who will need to change a work procedure or system as a result of the review are advised of the changes in a way that will enable them to implement their duties consistently with the revised SWMS. All workers that will be involved in the work must be provided with the relevant information and instruction that will assist them to understand and implement the revised SWMS.

The SWMS must be monitored regularly for the effectiveness of ensuring hazard controls are effective in reducing the risk of incidents, keeping the workplace safe for all personnel. The person responsible for monitoring the effectiveness of the Safe Work Method Statement should employ a multi-faceted approach which includes but is not limited to:

1. Spot Checks.
2. Consultation with workers, contractors and sub-contractors.
3. Internal audits on a continual basis.

An approach of continuous improvement, promptly recording inconsistencies or deficiencies, followed up by immediate corrective action and consultation with all relevant personnel ensures that the PCBU is consistently developing ever-improving systems of safe work principles.

| REVIEW NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------------|---|---|---|---|---|---|---|
| NAME | | | | | | | |
| INITIALS | | | | | | | |
| DATE | | | | | | | |

SAFE WORK METHOD STATEMENT REVIEW CHECKLIST

This Safe Work Method Statement Review Checklist is to be followed and used upon initial development of the SWMS to help ensure that all steps have been adequately taken before work commences. Think of this document as an internal audit review checklist before commencing work, and may form part of a Toolbox Talk (safety meeting) and may be used as an opportunity for education and training.

| ITEMS WHICH MUST BE INCLUDED IN THE SWMS | COMPLETED | COMMENTS |
|--|-------------------------------------|----------------|
| The company details have been entered, including the project name and address. | <input checked="" type="checkbox"/> | |
| All relevant personnel consulted during the development of the SWMS. | <input checked="" type="checkbox"/> | |
| Name, signature, position and date signed of the person approving the SWMS. | <input type="checkbox"/> | |
| Specific personnel and qualifications, experience is noted in the SWMS. | <input checked="" type="checkbox"/> | |
| Provides a step-by-step process of tasks required to carry out the activity or task. | <input checked="" type="checkbox"/> | |
| Adequate risk assessment of any identified hazards has been completed. | <input checked="" type="checkbox"/> | |
| Foreseeable hazards are identified and documented for each step. | <input checked="" type="checkbox"/> | |
| Any hazards listed in any site risk assessments have been added to the SWMS. | <input checked="" type="checkbox"/> | |
| SWMS initial risk (IR) column as well as residual risk (RR) column completed. | <input checked="" type="checkbox"/> | |
| Check control measures added to the SWMS are the most effective selected. | <input checked="" type="checkbox"/> | |
| Responsible person is assigned and listed on the SWMS for the implementation of control measures. | <input checked="" type="checkbox"/> | |
| Permit or licenses requirements specified, such as Hot Work, Electrical Work, Work at Heights etc. | <input checked="" type="checkbox"/> | |
| SWMS identifies plant and equipment to be used. | <input checked="" type="checkbox"/> | |
| Details of inspection checks required for any equipment listed as noted on the SWMS. | <input checked="" type="checkbox"/> | |
| Describes any mandatory qualifications, experience, training or skills required to perform the work. | <input checked="" type="checkbox"/> | |
| Applicable personal protective equipment is selected on the SWMS. | <input checked="" type="checkbox"/> | |
| Reflects and documents any legislative references and/or Australian Standards. | <input checked="" type="checkbox"/> | |
| Identifies any hazardous substances used with specific control measures in line with any SDS. | <input checked="" type="checkbox"/> | |
| | | |
| REVIEWED BY | | DATE REVIEWED |
| SIGNATURE | | DATE COMPLETED |