

Hot Work | Mirvac Minimum Requirements

1. Purpose & Scope

The purpose of this document is to eliminate or minimise the risk of injury, harm or damage from fire or explosion when high risk hot work is undertaken, so far as is reasonably practicable.

This document applies to all workplaces under the management or control of a Mirvac entity.

2. Minimum Requirements

Mirvac personnel and Service Providers must have processes in place to ensure compliance with:

- the Critical Controls (refer Section 3);
- relevant Forms (refer Section 4);
- all relevant Legislation, Codes of Practice and Standards (refer Section 7); and
- product guidelines for installation, use or maintenance from the Original Equipment Manufacturer.

3. Critical Controls

- **Risk Assessment:** All risks associated with hot work must be identified and the hierarchy of controls must be applied in determining the most appropriate method of controlling risks. Refer Hierarchy of Controls Triangle in Section 9. A risk assessment must be conducted by a competent person prior to proposed hot work and controls listed in the JSEA/SMWS and where required, the Hot Work Permit.

All Hot Work

Hot work is work which involves burning, welding, riveting, grinding, using fire or spark producing tools, or other work that produces a source of heat, sparks or ignition; e.g.:

- Sparks from rotary power grinding/ cutting discs, power drop saws;
- Sparks, molten metal & hot slag from electric and gas gouging or cutting;
- Direct heat from flames in brazing and gas welding;
- Unexpected, un-noticed sparks at joints in metal structures, caused by arc welding earth path through structure to earth electrode.

If the hot work situation is not initially rated as High, but is assessed to have the potential to become High through the changing nature of the workplace; a [Hot Work Permit](#) must be completed.

High Risk Hot Work

High Risk Hot Work is hot work undertaken in situations/locations where there is a Risk Ranking of HIGH identified through the Risk & Opportunity Register or a JSEA/Risk Assessment. E.g.

Examples include:

- Completed or occupied buildings and structures containing combustible materials and soft furnishings;
- Dry grass within 15 metres of hot work (AS1674.1) relates to a Likelihood of 'B' – Likely, with a Consequence of '3' - Moderate, still gives a Risk Ranking of B3 – HIGH;
- Hot work performed on or above a formwork or timber deck;
- Hot work performed in the vicinity of plastic or polystyrene type formwork, coverings or structures;
- Within a designated 'Confined Space';

- Approved Emergency work during a Total Fire Ban.

Where Risk & Opportunity Register prepared for each workplace using the Risk Ranking Matrix, Job Safety & Environment Analysis or Service Provider risk assessments identify the type of or particular hot work task to be 'High' risk; a [Hot Work Permit](#) must be completed.

Undertaking any hot work in outdoor environments during total fire ban days shall only be permitted for urgent and essential building and construction or demolition work by the issue of a [Hot Work Permit](#).

Where any type of hot work is required to be performed in a Confined Space the work shall be approved by the Division or Regional HSE Manager and a [Confined Space Entry Permit](#) must also be completed in compliance with the [Confined Space Entry MMR](#). Where the hot work may result in a hazardous atmosphere, consideration must be given to whether the work falls under the definition of work in a confined space, and if so, managed accordingly.

- **Work Practices:**

- All Oxy/Acetylene sets must be fitted with Flashback Arrestors on both the Oxy and Acetylene hoses and at both the bottle and torch ends.
- Some materials when heated or burned during hot work may emit toxic gases, e.g. galvanised steel – cyanide gas; lead paint – lead fumes; Poly Vinyl Chloride (PVC) – carbon dioxide, hydrogen chloride and carbon monoxide. Control measures must consider mechanical fume extraction or full respirator equipment for these situations. Refer also to the Occupational Exposures MMR.

- **Fire Watch:** The need for Fire Watch is identified during the risk assessment process in the [Hot Work Permit](#). Fire Watch is an activity undertaken by trained personnel in attendance during the entire operation and immediately available to extinguish a fire or take other effective action. Each designated fire watch person must be trained in First Attack Fire Fighting or a similar accredited course.

- **Hot Work Permit Sign off:** Where a Hot Work Permit has been used, the work area must be inspected on completion by the Service Provider and verified by a Mirvac representative to ensure the area has been left in a safe condition, and where necessary, to return any automatic Fire Control systems to operational mode.

If a Fire Watch has been required, the designated Fire Watch person must be consulted to confirm that the area is safe to leave unattended.

The alternative for long term hot work is to sign and date the weekly table at completion of work each day, and then the relevant section once the activity is finished.

- **Emergency Procedures:** Emergency planning for incidents relating to hot work must be referenced in the JSEA/SWMS and credible scenarios considered in the Workplace Emergency Response Plan.

4. Mirvac Forms

Checklists and Permits are to be completed and then authorised by Mirvac representative prior to work

[Hot Work Permit](#) – for high risk hot work

5. Roles and Responsibilities

The Mirvac workplace Manager of each workplace over which Mirvac has control is responsible to ensure workers at the site are aware of and adhere to the performance requirements of this document and responsible to ensure workers are equipped with adequate tools, training, competency and licensing to undertake the work.

6. Training and Competency

Minimum Training Requirements for Hot Work

Type of Activity	Required Training
Conducting Hot Work	Induction to JSEA/SWMS and/or Training in the work they are undertaking; and First Attack Fire Fighting
Permit Issuer	Permit Training (Mirvac Internal)
Fire Watch	First Attack Fire Fighting

7. Relevant Legislation, Codes of Practice and Standards

Document Title

NSW:	Work Health and Safety Act 2011 (NSW) Work Health and Safety Regulation 2017 (NSW)
Vic:	Occupational Health and Safety Act 2004 (Vic) Occupational Health and Safety Regulations 2017 (Vic)
Qld:	Work Health and Safety Act 2011 (Qld) Work Health and Safety Regulation 2011 (Qld)
ACT:	Work Health and Safety Act 2011 (ACT) Work Health and Safety Regulation 2011 (ACT)
WA:	Occupational Safety and Health Act 1984 (WA) Occupational Safety and Health Regulations 1996 (WA)
	SafeWork Australia – Welding Processes: Code of Practice
	Welding Technology Institute of Australia - Health and safety in welding: Tech note 7 2013
	AS 1674.1 Safety in Welding and Allied Processes – Fire Precautions

8. Additional Information

- [Confined Space Entry MMR](#)
- [Confined Space Entry Permit](#)
- [Occupational Exposures MMR](#)
- [Emergency Preparedness and Response MMR](#)

