## GUIDELINE: Hot Work

<table>
<thead>
<tr>
<th>Version</th>
<th>1.2</th>
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<tbody>
<tr>
<td>Short description</td>
<td>A guideline to ensure a safe method of work is followed while undertaking “hot work” at Charles Sturt University.</td>
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<tr>
<td>Relevant to</td>
<td>DFM employees, other university staff and contractors</td>
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<tr>
<td>Authority</td>
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<tr>
<td>Responsible officer</td>
<td>Facilities OHS Manager</td>
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<td>Responsible office</td>
<td>Division of Facilities Management</td>
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<tr>
<td>Date introduced</td>
<td>18 July, 2006</td>
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<td>Date(s) modified</td>
<td>See Table of Amendments</td>
</tr>
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<tr>
<td>Related University documents</td>
<td>Occupational Health and Safety Policy</td>
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<td>Division of Facilities Management policy documents</td>
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<tr>
<td>Related legislation</td>
<td>Occupational Health and Safety Act, 2000 (NSW)</td>
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<td>Occupational Health and Safety Regulations, 2001 (NSW)</td>
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<tr>
<td>Key words</td>
<td>Guideline, hot work, welding</td>
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1. PURPOSE

This document is designed to describe the safety issues and the relevant guidelines to follow prior to, during, and at the completion of hot works at the University, to prevent the possibility of fire or explosion in conjunction with the conduct of the works.

2. SCOPE

a) This guideline applies to the conduct of any hot work at the University either by a member of the Division of Facilities Management, another university staff member or a contractor to the University.

b) Approval by way of a hot work permit is not required for works within defined workshop welding bays, although many of the permit checks may form part of the safe work guidelines for these particular facilities.

3. REFERENCED DOCUMENTS


4. DEFINITIONS

4.1 Hot work

Hot work can be defined as the undertaking of a process that may generate significant heat or sparks. This can include grinding, welding, the use of oxy acetylene cutting or heating, use of naked flames and other similar operations.

4.2 University supervisor/ responsible officer – hot work permits

A deemed representative of the University, in the general case a maintenance supervisor or fire officer, authorised to issue hot work permits.

4.3 Hazardous area

An area that contains or may potentially contain materials that may ignite or explode in contact with heat, flame or sparks, which may be generated by the undertaking of specific works or processes. This includes areas in which there may be flammable liquids, vapours, gasses, combustible liquids, dusts or fibres present. Examples include laboratories, stores and pits.

4.4 University Approval

Approval must be obtained from an authorised officer of the University on the standard hot work permit form, prior to commencement of the works.
5. RESPONSIBILITIES

5.1 Division of Facilities Management

a) To ensure that this guideline is complied with by staff of the Division, and contractors engaged by the Division.

5.2 Authorising officer

a) Ensure that the manager of the site in which the hot works are to be performed is notified, and in particular informed if the, or any part of the fire detection system is to be isolated.

b) The authorising officer is also responsible for ensuring that the fire detection system is re activated at the completion of the works or the end of the shift.

5.3 Hot works supervisor

a) Shall ensure that appropriate controls are undertaken to comply with the requirements of this guideline and that of AS 1674.1 – 1997 Safety in welding and allied processes Part 1: Fire precautions.

b) Shall ensure that staff work within the approved permit conditions and follow all safety precautions to ensure that the work does not present harm to themselves, others or present a risk of fire or explosion.

5.4 Contractors

a) Ensure that they, and any persons under their supervision, comply with the hot work permit conditions and not undertake any activity that may result in the risk of fire or explosion, or present harm to themselves or other persons of the University community.

6. PURPOSE OF A “HOT WORK” PERMIT SYSTEM

a) A hot work permit system is designed to prevent any inadvertent mix of heat, sparks or flame, igniting materials that may result in fire or explosion. By using a permit system we can ensure that:
   - the works are approved by an authorised officer
   - that potential hazards are identified, isolated, removed or controlled
   - that appropriate controls have been undertaken to ensure that fire systems may be isolated if required and staff in the particular are have been notified.

b) It is important to understand that other potential hazards must also be assessed in conjunction with the hot work. This may include confined spaces, materials present or operations being undertaking at the location of the proposed hot works.
7. **GUIDELINES FOR UNDERTAKING “HOT WORK”**

The following steps shall be followed for the conduct of hot works.

a) All works must be approved by an authorised officer on the standard form.

b) Work must only be conducted in accordance with the approval.

c) Work must only be performed during the approved period as stated on the permit.

d) Each person associated with the works must be familiar with the approval and safety requirements.

e) Welders should not work alone and have the necessary assistance available to ensure an appropriate watch and support is provided.

f) A new permit is required if work has ceased for period in excess of 2 hours, or for work that is required to extend beyond the approved times as granted on the hot work permit.

g) The permit must be prominently displayed at the work site and returned at the completion of the hot work.

h) The hot work area includes the zone of 15m around the hot work site. This includes the area above and below the proposed hot work site.

8 **FIRE PROTECTION**

Adequate controls must be in place to prevent the risk of fire or explosion when conducting hot works. This includes the availability of appropriate fire fighting equipment.

Staff performing hot work shall ensure that:

a) a competent fire watch is maintained,

b) they are familiar with the fire fighting equipment present,

c) they know the location of the fire equipment, which shall be within 10m of the works.

d) they know how to raise the alarm in the event of fire or explosion.

9 **AFTER A FIRE HAS OCCURRED**

a) If a fire occurred as result of the hot work that required the use of first attack appliance to extinguish, details must be noted on the permit and returned to the approving officer.
b) Once a fire has occurred, no further work is to be performed until the site and works have undergone reassessment.

c) Any fire or other safety equipment that has been used must be submitted for service. Replacement items must be available before works recommence after approval.

10 FINAL INSPECTION

a) After the completion of the hot works, an inspection of the area, including adjacent areas, shall be carried out to ensure that no smouldering materials remain.

b) A subsequent inspection of the areas at a time or times, as indicated on the permit, may also be required.

c) After the final inspection the permit must be returned.

11 SPECIAL PRECAUTIONS

Special precautions may be required to be undertaken in circumstances such as highlighted below. This listed is not exclusive and is to be used as a guide only.

a) materials that have held flammable substances,
b) sewers, drains and pits,
c) contaminated ground,
d) areas with poor ventilation,
e) contents of stored materials,
f) areas with fine particulates or dusts,
g) pipes and ductwork,
h) laboratories,
i) stores, and
j) areas of high draft
**Fire Prevention**

Ensure these precautions are in place:

- Sweep the floor clean and wet down where necessary.
- Keep combustibles 12 metres away for work area.
- Use non-combustible covers to protect nearby combustibles and openings.
- When possible do work in a non-combustible area.
- Area should be free of lint, dust or flammable vapours.
- A person should be assigned to watch for sparks in the area and floor below, if conditions warrant.
- Have proper extinguishers and hose reels immediately available.
- Fire watch should be made for at least 30 minutes after welding or burning has ceased.
<table>
<thead>
<tr>
<th>Version number</th>
<th>Date</th>
<th>Short description of amendment</th>
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<tbody>
<tr>
<td>V 1.0</td>
<td>17 July 2006</td>
<td>Original Draft developed by Facilities OHS Manager</td>
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<tr>
<td>V 1.1</td>
<td>19 July 2006</td>
<td>Amended guideline to procedure, minor changes to commentary.</td>
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<tr>
<td>V1.2</td>
<td>31 July 2006</td>
<td>Replace new permit with existing hot work card, revert back to guideline.</td>
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