1 Purpose

The purpose of this procedure is to provide a safe environment in the University’s buildings where Hotwork may be performed. Potential health, safety and property hazards can result from the fumes, gases, sparks, hot metal and radiant energy produced during Hotwork. These hazards are to be minimised through the implementation of the effective controls detailed in this procedure. This procedure describes a generic minimum process and further School/CSU specific procedures may need to be developed to meet the local need.

The University recognises the hazards inherent in Hotwork and the dangers that can be presented to the staff and students of the University and the buildings in which they work and study. Accordingly the procedures established to provide control of these hazards must be complied with at all times for all manner of Hotwork.

2 Organisational Scope

This is a University-wide procedure.

3 Definitions

For purposes of this procedure, unless otherwise stated, the following definitions shall apply:

Contractor: Any person engaged by the University (other than as an employee) to do any work for gain or reward.

CSU: Central Service Units.

Hotwork: Refers to all processes involving a naked flame or where high temperatures are produced. This includes welding, brazing, metal cutting by either gas or plasma equipment and grinding with portable electric equipment.

Hotwork Controller: Any person approved under this procedure to control the Hotwork system.

Maintenance Contractor: The principle contractor engaged by the University to maintain the University buildings.

Operator: That person performing the Hotwork.

Project: Any work activity being managed by Facilities Management Projects group.
4 Procedure

4.1 Responsibilities

4.1.1 Manager, Facilities Management
(a) To ensure that the University Maintenance Contractor and all Faculties/Schools/CSUs that conduct Hotwork, have Hotwork procedures in place.
(b) To ensure that such procedures are followed on all occasions when Hotwork takes place.
(c) To certify areas within workshops managed by Schools where Hotwork can be undertaken without obtaining a permit in each instance.
(d) To nominate appropriate personnel to act as Hotwork Controllers.

4.1.2 Manager, Projects
(a) To ensure that all contractors employed on Victoria University projects have in place an established hot work procedure comparable with this Hotwork procedure, including any sub-contractors contracted by the main contractor.
(b) To nominate appropriate personnel to act as Hotwork Controllers.

4.1.3 Heads of School/CSU
(a) To establish an area within workshops managed by Schools/CSUs which meets certification standards.
(b) To establish additional School/CSU specific procedures as necessary, for staff undertaking Hotwork to ensure that such works are carried out in a safe manner.
(c) To ensure that Hotwork procedures are followed by School/CSU staff on all occasions where Hotwork occurs.
(d) To nominate appropriate personnel to act as Hotwork Controllers.

4.1.4 Maintenance Contractor
(a) To ensure that there are an adequate number of approved Hotwork Controllers to meet the exigencies of the maintenance contract.
(b) To ensure that any Hotwork areas managed by the Maintenance Contractor meet certification standards.
(c) To ensure that the Hotwork procedure is followed by the Maintenance Contractor staff and sub-contractors.

4.1.5 Manager, Health and Safety
(a) To provide training to controllers in the Victoria University Hotwork Procedure as required.
(b) To establish a register of approved Hotwork Controllers, trained to administer the system.
(c) To maintain the Hotwork procedure in line with current best practice.
(d) To conduct site checks to ensure that the Hotwork procedure is being followed and is effective.
4.2 Preparation Prior to Starting Work

(a) A Hotwork permit is to be obtained from the Hotwork Controller prior to commencing any Hotwork, except where Hotwork is to be undertaken in a certified area.

(b) The person conducting the work is to be fully trained and competent in the use of the equipment and wear the appropriate personal protective equipment.

(c) An inspection of the area is to be conducted to ensure that there are no loose combustible materials in the area. Any combustible materials are to be moved 10 metres from the worksite or covered with fire resistant material or metal covers.

(d) Floors are to be swept clean and any accumulations of dust removed. Combustible floors or floor coverings are to be covered with a non-combustible material.

(e) Any material in the work area likely to give off toxic or unpleasant fumes is to be identified, removed or protected. Consideration is to be given to other people in the area who may be affected by the fumes.

(f) Floor or wall openings located 10 metres or less from the work site are to be covered to prevent hot sparks from entering walls or falling beneath floors to a lower level.

(g) Shields are to be erected where electric arc welding is to take place to prevent ultraviolet light exposure to others in the area.

(h) Hotwork is not to be conducted in the presence of flammable gases, vapours, liquids or dusts. Where the area is suspected of being hazardous or has the potential to become hazardous, atmospheric testing is to be done prior to commencement of work and periodically thereafter to ensure the atmosphere is below the lower explosive limit. Any containers to be welded are to be purged of flammable liquids/vapours and certified as such by a University Representative prior to Hotwork commencing.

(i) Where Hotwork is to be conducted in a tank or vessel a work methodology statement shall be provided to and approved by a University Representative prior to Hotwork commencing.

(j) Local ventilation is to be rigged where materials that may produce hazardous fumes (e.g. Cadmium) are being welded.

(k) Where Hotwork is to be performed in the vicinity of heat or smoke detectors or close to sprinkler heads, the detectors or heads may be shielded or (in certain cases) the system may be isolated subject to the approval of the Fire & Emergency Coordinator (FEC). Isolation may only occur during the actual period of Hotwork and the system must be reactivated as soon as possible.

(l) The FEC is to be informed by telephone or txt message (x5729) of any Hotwork carried out by Contractors or the Maintenance Contractor. This is not required where the work has occurred in an approved Hotwork area.

(m) The Hotwork controller will only issue a permit once the inspection has occurred and the workplace is safe for Hotwork to proceed.

(n) On completion of the Hotwork and again 30 minutes later the area will be inspected for potential fire sources.

4.3 Fire Watch

(a) A person other than the operator is required to perform fire watch duty. A fire watch is to be provided while the work is taking place and for 30 minutes after, including any break periods. The person performing the fire watch duty will:
(i) Be equipped with a suitable fire extinguisher and be conversant with its use.

(ii) Wear the appropriate personal protective equipment.

(iii) Be alert to the location of any sparks, flames or slag from the Hotwork process and immediately extinguish any fires that may start.

(b) Additional people may be required for the fire watch in adjoining areas above and below.

(c) Campus Care shall be advised of any location where Hotwork has occurred during the day, so that the area can be checked by the evening patrols.

5 Legislative Compliance

The University is required to manage its policy documentation within a legislative framework. The legislation directing this procedure is the:

Health and Safety in Employment Act 1992

6 References

Previous Version: Hotwork Procedure

7 Appendices

Appendix A: Sample Hotwork Permit

8 Approval Agency

Director, Facilities Management

9 Contact Person

The following person may be approached on a routine basis in relation to this procedure:

Facilities Manager
Ext. 6604