Working in Heat Guidelines

Internal document

PURPOSE

This guideline outlines the responsibilities and requirements to enable Curtin University workers and students to carry out work in extreme heat without a risk to their health and safety, so far as reasonably practicable. These guidelines support the *Health and Safety Policy* and *Health and Safety Management Standards* at the University.

The aim of this guideline:

- To provide information and advice on the management of hazards and risks associated with working in heat at Curtin, in accordance with Work Health and Safety Legislation.

The scope of this guideline:

- This guideline applies to all Curtin University workers and students who may be required to undertake work in the heat.

DEFINITIONS

Acclimatisation	The process or result of becoming accustomed to a new climate or to new conditions.
Heat-related illness	A range of medical conditions that can occur when the body is unable to regulate its temperature sufficiently. These conditions can include dehydrations, fainting, heat stroke, heat exhaustion, skin rashes and fatigue.
Line Manager	a) In the case of a Professional and General Staff Member, the Staff Member to whom a Professional and General Staff Member directly reports; b) in the case of an Academic Staff member, the Staff Member who is designated as the Academic Staff Member's Line Manager by the Executive Manager.
Solar ultraviolet radiation protection	Personal protective equipment (PPE) designed to protect workers against exposure to solar ultraviolet radiation when working outdoors.
Workers	A person who carries out work in any capacity for a person conducting a business or undertaking (PCBU), including work as an employee, contractor, subcontractor, self-employed person, labour hire company, volunteer, and any student undertaking work activities for the University.

RISK MANAGEMENT

Heat related illness is a progressive condition and if left untreated can be fatal.
Types of heat illness include:

- Discomfort – flushed skin, increased sweating, heat rashes
- Mild heat illness - feeling tired, weak, dizzy, cramping, reduced work capacity, reduced attention span and irritability.
- Heat exhaustion – fainting, headache, low blood pressures, nausea, clammy, pale, flushed skin
- Heat stroke – irritability, confusion, speech problems, hot dry skin, unconsciousness.

Identify the Risk

Key risk factors include:

- Air temperature
- Humidity
- Air movement or wind speed
- Workload
- Radiant heat sources including the sun, furnaces, ovens and hot vessels
- Physical fitness of the worker including acclimatisation and any pre-existing conditions that can affect the body's ability to manage heat.
- Clothing including protective clothing that may restrict air flow

Assess the Risk

Ensure a risk assessment is be carried out by a competent worker prior to the works commencing to determine the severity of the risk and ensure existing controls are effective. To assess the risk, consider the impact of the hazard and how likely it is to cause harm to the workers.

Risk assessments for working in heat should consider (but is not limited to) the following:

- Where is the work being done?
- Is it located near heat sources and confined spaces that minimise air flow?
- What is the type of work? For example, is physical exertion required over long periods.
- What clothing including PPE is available to workers and may increase the risk of heat-related illness?
- Are the workers fit to work and acclimatised to current working conditions?
- Have workers disclosed anything that indicates they are susceptible to heat-related illness?

Control the Risk

The hierarchy of controls can be utilised to control and minimise the risks associated with working in heat. These include:

<u>Elimination controls:</u>
Consider if the risks associated with working in heat can be eliminated. If it is not reasonably practicable to eliminate, ensure the risks are further minimised through the remaining hierarchy of controls.

<u>Substitution controls:</u>
Where practicable replace the hazard or hazardous work practice with a safer one. This may include, having workers complete their work tasks in a cooler environment.

<u>Isolation controls:</u>
Separating the source of heat from workers through distance or by using barriers.

<u>Engineering controls:</u>
Implementing control measures physical in nature, including mechanical devices or processes.
This may include:

- Increasing air movement using fans
- Installing shade cloth / tents to reduce radiant heat from the sun
- Installing shields or barriers to reduce radiant heat from sources such as furnaces or hot vessels.

- Removing heated air or steam from hot processes using local exhaust ventilation
- Installing air conditioners or coolers to reduce air temperature
- Insulating/enclosing hot processes or plant.
- Providing accessible cool drinking water or when necessary, electrolyte solutions

Administrative controls:

This may include:

- Implement safe work methods or procedures to minimise the exposure to heat sources. This may include scheduling physically demanding activities during cooler parts of the day.
- Rotate work tasks to reduce exposure time in the heat.
- Provide information and training to ensure workers are aware of the risks and recognise the potential dangers associated with working in heat. This can be implemented through toolbox talks and pre-start meetings to reinforce the actions needed to avoid heat related illness.
- Providing adequate rest breaks in cool and shaded areas.

Personal Protective Equipment:

- If practicable, modify uniforms or required dress codes to accommodate for more breathable clothing. This may include loose fitting and light weight clothing.
- For work being completed outdoors, workers should be provided with protection against ultraviolet exposure. This includes wearing sun protective work clothing, sun protective hats, sunglasses, and sunscreen.

Review Control Measures

Ensure to regularly review the implemented control measures to ensure no new uncontrolled risks are introduced.
It is important to consult with workers and their Health and Safety Representatives to determine if the control measures are effective and actively containing the risk.

RESPONSIBILITIES

Workers at all levels of the University have a responsibility for ensuring health and safety. These responsibilities are dependent on the individual's role and are outlined in the Health and Safety Responsibilities Procedure.

Line Managers / Supervisors

- Ensure the requirements of this guideline are met
- Approve risk assessments or escalate to the appropriate approver as per the Health and Safety risk matrix requirements.
- Regularly review hazards associated with working in heat.
- Ensure control measures (including safe work procedures) are identified and implemented in consultation with the relevant workers and the Health & Safety Representative
- Ensure workers, students and contractors are aware of their responsibilities, have adequate information, training, and PPE.

Workers

- Have a duty to take reasonable care for their own health and safety and to not adversely affect the health and safety of other persons.
- Responsible for completing risk assessments prior to the work taking place
- Disclose any information pertaining to their health which may adversely affect their ability to conduct their work safely.

- If PPE is provided, the worker must ensure so far as they are reasonably able, use or wear it in accordance with the information, instruction and training provided.

EXEMPTIONS

Nil

RELEVANT DOCUMENTS/LINKS

Health and Safety Policy
Health and Safety Risk Matrix
Health and Safety Risk Assessment Guideline
Work Health and Safety Regulations 2022 - Regulation 41A
Safe Work Australia - Guide for Managing the risks of working in heat

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