Policy Redesign Project

All policies and procedures are being reviewed as part of this project. This document is pending review, but remains in effect until the review is carried out.

Working in Extreme Heat or Cold

Establishment: Senior Vice-President, 24 July 2014

Last Amended:

Nature of Amendment:

Date Last Reviewed:

Responsible Officer: Director, Human Resources

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1. Purpose

These procedures

- ensure that workers and/or students carrying out work in extreme heat or cold are able to carry out that work without risk to their health and safety, so far as is reasonably practicable; and

- provide information to managers, supervisors, workers and students of the risks associated with working in extreme hot and/or cold conditions and of strategies to minimise the risk of injury.

2. Scope

These procedures apply to Flinders University workers, students and visitors who may be required to undertake work in extreme heat or cold[1] , including on University fieldtrips.

These procedures do not address thermal discomfort (eg discomfort felt by workers on a hot and humid day), which is not a medical condition.

[1] *There is no legislation which specifies maximum or minimum temperatures in the workplace. Each situation must be assessed on a case by case basis taking into account the risk factors for heat and cold-related illnesses.*

3. Definitions

Heat illness	A range of medical conditions that can occur when the body cannot cool itself sufficiently in environments where there is high temperature (eg summer), high humidity (eg commercial kitchens), high level of physical activity (eg manual labour) or excessive or impervious clothing. These conditions include: • heat stroke *(a life threatening illness which requires immediate first aid and medical attention);* • fainting in heat; • heat exhaustion; • heat cramps; • skin rashes; • heat fatigue; • worsening of pre-existing illnesses and conditions.
Cold - related illness	Occurs when the body is unable to cope when working in environments (including walk-in freezers and cool rooms) where the temperature is low (which will be aggravated by wind), immersion in water and working in wet clothing. These conditions include: • hypothermia *(a life threatening illness which requires immediate first aid and medical attention);* • frostbite; • immersion foot; • chilblain.
Note: under normal circumstances, there are very few work environments at the University that could give rise to heat or cold-related illnesses.	

4. Responsibilities

Managers and Supervisors	Responsible for the implementation of these procedures in their work area including: • implementing a systematic process for regular review of hazards associated with extreme hot or cold environments;

	• ensuring that corrective actions/control measures (including safe work practices) are identified and implemented; • ensuring workers and students are aware of their responsibilities, and have adequate information, training and personal protective equipment and clothing (PPEC) (eg hats, sunscreen, shelter).
Workers/Students	Responsible for • adopting/using the required controls (eg wearing of PPEC); • reporting conditions which may affect their work capability to their supervisor; • being able to recognise warning signs if their health is being affected by work in extreme hot or cold conditions.

5. Risk Management

Where workers and/or students may be carrying out work in extreme heat or cold, the Manager or Supervisor must:

- identify the hazards associated with the work in those conditions;
- assess the risk;
- eliminate the risk or where that is not reasonably practicable, implement control measures to reduce the risk to an acceptable level; and
- review and monitor the control measures.

Throughout this risk management process managers and supervisors must consult, as far as is reasonably practicable, workers concerned and their health and safety representative(s), and where relevant, students.

6. Identifying heat hazards

Key risk factors which need to be taken into account are:

- air temperature;
- humidity (in the environment or workplace [eg commercial kitchens]);
- radiant heat (from the sun or other sources such as ovens);
- air movement or wind speed;
- workload (nature of work and duration);
- physical fitness of the worker (including acclimatisation and any pre-existing conditions);
- clothing;
- weather forecast.

7. Identifying cold hazards

Key risk factors which need to be taken into account include:

- air temperature;
- air movement or wind speed;
- wet weather;
- cold from walk-in freezers and cold rooms;
- workload (nature of work and duration);
- physical fitness of the worker (including acclimatisation and any pre-existing conditions);
- clothing;
- lack of shelter;

- weather forecast**.**

8. Control measures

Appendix A sets out examples of possible control measures.

9. Safe Work Method Statements

Following risk assessments of work in extreme heat/cold, safe work method statements (SWMSs) must be developed so that control measures are documented and implemented.

10. Signs and symptoms of heat and cold-related illness

10.1 Heat illness

Signs and symptoms of heat illness include:

- feeling sick, nauseous, dizzy or weak;
- clumsiness, collapse and convulsions.

10.2 Cold-related illness

Signs and symptoms of cold-related illness include:

- Numbness of extremities (fingers, toes);
- Loss of fine motor coordination;
- Stiffness or pain;
- Slurred speech and drowsiness;
- Slow, irregular breathing and heartbeat/pulse;
- Shivering.

11. Training

Workers and students who may be exposed to extreme hot or cold work/study environments must be trained in the hazards, risks and control measures and must be made aware of the early symptoms of heat or cold-related illness.

12. Legislative and policy framework

South Australia

- *Work Health and Safety Act 2012*
- *Work Health and Safety Regulations 2012*
- Code of Practice Managing the Work Environment and Facilities

Northern Territory

- *Work Health and Safety (National Uniform Legislation) Act 2016*
- *Work Health and Safety (National Uniform Legislation) Regulations*
- Code of Practice *Managing the Work Environment and Facilities*

Victoria

- *Occupational Health and Safety Act 2004*
- *Occupational Health and Safety Regulations 2007*

University policies and procedures

All University policies and procedures apply regardless of location. The following are particularly relevant to these procedures:

- Work Health and Safety Policy
- Work Health and Safety Risk Management Policy
- Working in Confined Spaces

13. Review

These procedures are reviewed regularly in the light of legislative and organisational changes, and in any case, at least every 4 years to ensure they remain effective, relevant and appropriate to the University, and reflect current legislative requirements.

APPENDIX A

Recommendations for extreme hot and humid weather

If it is not possible to eliminate exposure to extreme heat and humidity, the risk of heat illness must be minimised so far as is reasonably practicable. For example:

- increase air movement using fans;
- install air-conditioners or evaporative coolers to lower air temperature;
- isolate workers from indoor heat sources, for example by insulating plant, pipes and walls;
- remove heated air or steam from hot processes by using local exhaust ventilation;
- use mechanical aids to assist in carrying out manual tasks;
- alter work schedules so work is done at cooler times;
- use vehicles with air conditioning;
- find appropriate shelter.

The following control measures should also be considered but are least effective if used on their own:

- slow down the pace of work if possible;
- provide an appropriate supply of cool drinking water for the activity;
- provide a cool, well-ventilated area where workers/students can take rest breaks;
- provide opportunities for workers who are not used to working in hot conditions to acclimatise (eg job rotation and regular rest breaks);
- ensure light clothing is worn to allow free movement of air and sweat evaporation;
- use personal protective equipment and clothing (eg hats, sunblock).

Recommendations for extreme cold weather

If it is not possible to eliminate exposure to extreme cold, the risk of cold-related illness must be minimised so far as is reasonably practicable. For example:

- provide localised heating;
- provide protection from wind and rain, such as a hut or the cabin of a vehicle;
- rotate workers so no one person is in the cold environment for long periods of time;

- limit handling of frozen or cold items to avoid hands losing feeling.

The following control measures should also be considered but are least effective if used on their own:

- ensure warm and, if necessary, waterproof clothing (including hats and gloves) is worn;
- provide opportunities for workers who are not used to working in cold conditions to acclimatise (eg job rotation and regular rest breaks);
- provide warm drinks;
- use an appropriate rating sleeping bag.

Recommendations for working in cold-stores and walk-in freezers

- ensure that another staff member has been informed if working in isolation;
- display thermometers outside of the cold-store or freezer;
- ensure warm clothing and other appropriate personal protective equipment and clothing is worn;
- ensure staff take regular short breaks outside of the cold-store or freezer;
- ensure time spent in the cold-store or freezer is as short as possible;
- fit an audible/visible alarm, which can be triggered by a person should they become trapped or require assistance, to the outside of all cold-stores and walk-in freezers.