WORKING IN HOT or EXTREME CONDITIONS POLICY

FOR

COONAMBLE SHIRE COUNCIL

Endorsed by Occupational Health and Safety Committee on
15th February 2011

Adopted by Council on 8 June 2011
Minute No 9208

POLICY STATEMENT

This policy is aimed at ensuring that Council meets the objects of the Occupational Health and Safety Act 2000. Council has a duty of care to ensure that all workers are protected from the sun and its effects as per its UV & clothing policy and to minimise the exposure of all staff against the risk of Heat stress injury through the systematic identification, assessment and control of working in hot environments.

SCOPE

This procedure applies to all Council employees, contractors and Volunteers whose duties would place them in areas of risk in an outdoor hot environment or working with equipment that produces Heat.

RESPONSIBILITIES

1. **Managers / Overseers / Team-Leaders**
   - Ensure that all staff and volunteers under their control are educated in the hazards of working in an outdoor environment where hot or extreme conditions may be present.
   - In the case of extreme and unusual weather - review and conduct a risk assessment to determine what action, if any, needs to be put in place to minimise exposure and risks to employees during such unusual occurrences.
   - Ensure staff and volunteers are issued with and wear appropriate personal protective equipment to provide protection against the risk of a heat stress injury.
2. **Employees and Volunteers**
   - Must comply with the directions of this procedure and must wear the PPE supplied when working in hot conditions.

REFERENCE

- OH&S Act 2000 and OH&S Regulations 2001
- Local Government (State) Award 2010
- WorkCover NSW Code of Practice Work in Hot Environments
- RTA Working in Extreme Temperatures Policy
- Council's UV & Clothing Policy

HOW TO CONTROL HEAT STRESS

In extremely hot conditions, employee's exposure time must be carefully controlled. Controlling a heat stress injury must be approached in the same manner as all Risk Management and Occupational Health and Safety systems. In managing extremes of temperature, council requires a planned approach:

1. **Identify the job tasks or environments that expose people to extremes off temperature.**
   Rate your duties against the risk factors listed below for hot weather.
2. **Consult with staff during the decision making process to identify the most appropriate combination of control measures.**
   Where possible introduce measures to bring the temperature to an acceptable level or ensure staff comfort.
   Consider work rest regimes and ensure that continuous work is not exceeded for hot weather conditions.
3. **Provide appropriate equipment and ensure that appropriate clothing is worm when working in hot weather.**
   Refer to control measure for what to do in hot weather
4. **Ensure staff is prepared for working in hot weather.**
   Take into consideration the physical fitness, general health, medications taken and body weight of each employee exposed.
   Allow staff to acclimatize to the weather before embarking on a full work schedule.
5. **Staff obviously affected by the temperature extremes are to stop work and rest away from the heat that is affecting them and report the incident to their supervisor.**

RISK FACTORS TO BE CONSIDERED

Before deciding how to control the risks for work in hot conditions, you should look at the following five assessment factors:

a. The source of heat

What working conditions expose employees to heat?

- Work in direct sunlight in hot weather (e.g. Bitumen laying, construction). The risk increases when combined with high temperatures, high humidity and low air movement.
- Work requiring high physical work rate in humid conditions
- Plant which becomes hot.
- Workplace with inadequate temperature control or ventilation.

b. The nature of work undertaken

The risk assessment should consider how the work being done interacts with hot conditions. For example:

- Work in close proximity to sources of heat (e.g. Metal forging).
- Work in hot conditions (e.g. Asbestos removal) requiring protective clothing that inhibits loss of body heat.
- The interaction of other hazards with hot conditions (e.g. Work in confined spaces, where limited ability to move about could increase the effects of heat).

c. The duration of exposure to heat

Risk to health and safety will be influenced by the length of time workers are exposed to heat. In particular the following should be considered:

- Work activity requiring prolonged physical exertion in high temperature or high humidity.

d. The physical condition and capability of the worker

Work in hot environments should be planned so that the needs of individual employees are considered.

While none of the following factors need exclude a person from doing the work, and one of them may trigger special consideration of the worker's needs when assessing heat related risks:

- Does the person have any physical or medical health conditions that make them more likely to be affected by heat?
- Have they recently taken any medication, drugs or alcohol that may make them more likely to be affected when working in hot environments?
- Are they experienced in, and acclimatised to, the working conditions?
- Have they every suffered a reaction to work in hot environments?
- What level of physical activity is required by the work?
- Are there adequate breaks from particular tasks or rotated duties to avoid heat-related problems?
- Have I taken sufficient steps to reduce risks to works or should I undertake more comprehensive monitoring or implement a work-rest regime?

e. Past experience of problems arising from work in hot environments

You should look at all information that may indicate that there have been instances of heat stress, or similar problems. This would include:

- Incident data – claims and incident reports.
- Documented complaints or problems arising from work in hot conditions.

ENGINEERING CONTROLS

In certain situations, a number of different engineering control measures can be applied to minimize heat stress. Engineering controls are most effective when incorporated into the design stage of any project, although in some cases it is possible that they could be fitted retrospectively.

Radiant heat sources – refers to infrared radiation from a hot process or structure, or to the sun. Control measures include:

- Air-conditioners in buildings, vehicles and plant.
- Minimize or interrupt line-of-sight exposure of employees to the heat source.
- Reducing the temperature of the process.
- Using barriers.
- Using reflective clothing to cover and protect exposed skin.
- Protecting eyes from infra-red radiation with an eye shield and approved standard viewing glasses.
- Shade provision and wide-brimmed hat & UV protected sunglasses for outdoor workers.
- Redesigning tools to increase distance from source (long handle shovels).
- Insulating and enclosing the source.

ADMINSTRATION CONTROLS AND WORK PRACTICES

The engineering Controls set out above are the most satisfactory solution to control heat stress. However, the use of these controls is not always feasible or practicable because of technical or economic reasons.

Where engineering controls are not practicable, administrative controls should be utilized whether as a substitute or in conjunction with Engineering Controls.

Examples of modification to work practices to reduce heat stress include:

- Monitor temperature, humidity and workers' physical response to environmental conditions.
- Frequent rest pauses in a cool area (e.g. vehicles, trees or caravan).
- Mechanizing some of the tasks (e.g. Use power tools or machinery).
- Rescheduling tasks so that heavier work is done at a cooler time of the day.
- Reducing time on a hot job by job or worker rotation and/or work-rest regime.
- Protective clothing that inhibits evaporative cooling, or increases physical effort required to do the job, may impose an additional heat burden on those persons wearing it should be an additional consideration for above mentioned controls.
- Supervisors should ensure both new and experienced employees receive training that covers acclimatization, the need for frequent drinking to avoid dehydration, use of clothing, etc
- Allow unacclimatised people time to acclimatize and give them light tasks for the first few days in a hot job.
- Supply cool drinking water next to or near the site of the work. Encourage people to take small frequent drinks. Under high stress conditions, one litre or more of water in each hour can be lost through sweating. It is essential to replace this water as sweating occurs.
- Develop first aid and emergency procedures – and make sure they are understood.

WARNING SIGNS, FIRST AID & EMERGENCY PROCEDURES

HEAT STRESS IN THE WORKPLACE

Heat stress includes a series of conditions where the body is under stress from overheating. It can include:

- Heat rash
- Heat cramps
- Heat exhaustion,
- Heat stroke.

Each produces bodily symptoms that can range form profuse sweating to dizziness to cessation of sweating and collapse. Heat stress can be induced by high temperatures, heavy work loads, the type of clothing being worn, etc.

Review the signs of heat stress in the **Heat Condition Table** and the proper first aid to treat it. The victim **often overlooks** the signs of heat stress. The employee may at first be confused or unable to concentrate, followed by more severe symptoms such as fainting and/or collapse. ***If heat stress symptoms occur, move the employee to a cool. Shaded area, give him/her water and immediately contact the supervisor.***

HEAT CONDITION TABLE

Conditions	Signs/Symptoms	First Aid
Heat Cramps	Painful muscle spasms Heavy sweating	**Increase water intake** **Rest in shade/cool environment**
Heat Syncope	Brief fainting Blurred vision	**Increase Water intake** **Rest in shade/cool environment**
Dehydration	Fatigue Reduced movement	**Increase Water intake** **Rest in shade/cool environment**
Heat Exhaustion	Pale and clammy skin Possible fainting Weakness, fatigue Nausea Dizziness Heavy Sweating Blurred vision Body temp slightly elevated	**Lie down in cool environment** **Water intake** **Loosen clothing** **Call ambulance if symptoms** **Continue once in cool environment**
Heat Stroke	Cessation of sweating Skin Hot and dry Red face High body temperature Unconsciousness Collapse Convulsions Confusion or erratic behavior Life threatening condition	**Medical Emergency!** **Call ambulance move victim to shade,** **Immerse in water**

REPORTING OF HEAT-RELATED INCIDENCES

All hazards and incidents of heat-related issues or injuries are to be reported immediately to the site supervisor for reporting on council's incident/injury form.