Richland County Recreation COMMISSION

Enriching Lives & Connecting Communities

Heat Stress Program

Safety and Security
Policy No. **125**

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Policy Statement

Heat stress can be a serious problem in hot working environments. The core body temperature for a human must be maintained within a very narrow range, regardless of workload or adverse environmental conditions. An increase in core body temperature of 6 ½ °F above normal can result in death. The body initially responds to heat by sweating and by circulating blood closer to the skin's surface to lower the main body temperature. When exposure to heat takes place over an extended period, a process of physiological adaptation called acclimatization occurs within a few days of the first exposure. Once acclimatization is achieved, working in the heat results in increased production of a more dilute sweat and less of an increase in heart rate and body temperature.

1.0 HEAT RELATED DISORDERS

High temperatures, high humidity, sunlight, and heavy workloads increase the likelihood of heat stress. Too much heat can also make workers lose their concentration or become fatigued or irritable and thus increases the chance of accidents and injuries. Understanding how to deal with heat stress can help to prevent or reduce accidents and is important to workers' health and well-being.

1.1 ..... **Heat rash** is an early signal of potential heat stress. It is commonly associated with hot, humid conditions in which skin and clothing remain damp due to un-evaporated sweat. Heat rash may involve small areas of the skin or the entire torso. Even after the affected area of skin is healed, sweat production will not return to normal for another 4 to 6 weeks. Treatments include cleaning the affected area and applying mild lotions to it. Keeping the skin clean and dry for at least 1 hour each day will prevent severe heat rash.

1.2 ..... **Heat syncope** is characterized by dizziness or fainting while standing still in the heat for an extended period. Heat syncope is the least serious of heat-induced disorders. Its most serious aspect is that it may cause people to fall or injure themselves while operating machinery.

1.3 .....**Heat cramp** symptoms include painful cramps or spasms in the legs, arms, or abdomen. The victim will probably sweat heavily. Spasms may occur during work or in the evening after work. Heat cramps are often caused by a temporary fluid and salt imbalance during hard physical work in hot environments.

1.4 .....**Heat exhaustion** results from the reduction of body water content or blood volume. The condition occurs when the amount of water lost as sweat exceeds the volume of water drunk during the heat exposure. The victim of heat exhaustion may have some or all of the signs or symptoms: heavy sweating; clammy, flushed, or pale skin; weakness; dizziness; nausea; rapid and shallow breathing; headache; vomiting; or fainting.

1.5 .....**Heat stroke** is a life-threatening, heat-related disorder associated with working under very hot and humid conditions. Heat stroke can result in coma or death. The early signs and symptoms of heat stroke include:

- A high body temperature, 104.5°F or over,
- Hot, dry skin that appears bluish or red;
- Absence of sweat in 50-75% of victims;
- Rapid heart rate
- Dizziness, shivering, nausea, irritability, and severe headache progressing to mental confusion, convulsions, and unconsciousness.

A worker who becomes irrational or confused or collapses on the job should be considered a heat stroke victim, and medical help should be called immediately. Early recognition of symptoms and prompt emergency treatment is the key to aiding someone with heat stroke. While awaiting the ambulance, begin efforts to cool the victim down by performing the following:

- Move the victim to a cooler environment and remove outer clothing.
- Wet the skin with water, and fan vigorously or repeatedly apply cold packs or immerse the victim in a tub of cool (not ice) water.
- If no water is available, fanning will help promote cooling.

2.0 WORKING IN HOT ENVIRONMENTS

There is currently no specific Occupational Safety and Health Administration (OSHA) Standard for heat stress. However, OSHA recognizes that jobs involving operations in hot environments have the potential to induce heat stress in employees. These operations include those, which involve radiant heat sources, high humidity, direct contact with hot objects, or strenuous activities. With proper replacement of fluids and adherence to proper work/rest regimens, the adverse effects of working during hot weather can be prevented. A person's risk of developing an adverse

effect from heat increases with ambient temperature and humidity, increased level of work, and increased amount of clothing.

2.1 Possible at risk employees:

- Parks Division Personnel
- Employees required to wear protective clothing
- Swimming Pool Personnel
- Any other RCRC employee that is exposed to hot environments

3.0 HEAT HAZARD ASSESSMENT

The potential for an employee who works in a hot environment to be affected by heat stress depends on heat combined with physical labor, loss of fluids and fatigue, in addition to the factors listed below. An assessment of each job with these factors can assist in developing a strategy to prevent heat related problems.

4.0 EMPLOYEE HEALTH EVALUATIONS

Employee health evaluations may be requested if an employee who has been assigned work in hot environments is aware of individual risk factors that are present and may put them at greater risk for heat stress. Health evaluations shall also be provided in the event that an employee experiences health effects that are suspected to be heat illness or injury related.

5.0 EMPLOYEE TRAINING

Employees involved in operations (i.e. Para 2.1), which put them at risk for heat stress, will be trained to recognize operations and individual risk factors that can put them at risk for heat stress.

ADOPTED BY RICHLAND COUNTY RECREATION COMMISSION BOARD

BOARD MEETING DATE: November 18, 2013
(Date Approved)

APPROVED: J. Marie Green
J. Marie Green, Chair

For more information about this policy, contact the Safety Department