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24.1 Foreword

The County of Santa Clara is concerned for the health and safety of all county employees. Employees in outdoor environments face the risk of heat illnesses when working unprotected from environmental risk factors such as conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees.

These conditions may result in serious medical conditions resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, heat syncope and heat stroke.

Personal risk factors for heat illness, such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications, may adversely affect the body's water retention or other physiological responses to heat.

This plan would require county departments to implement heat illness control measures in order to protect employees from these environmental and personal risk factors and to enable the employees to continue working without unreasonably jeopardizing their own health and safety.

24.2 Introduction

The plan applies to all outdoor places of employment.

24.2.1 Employees will have access to potable drinking water.

24.2.1.1 Where it is not plumbed or otherwise continuously supplied, it will be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift.
24.2.1.2 Departments may begin the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow employees to drink one quart or more per hour. The frequent drinking of water will be encouraged.

**24.2.2 Employees will have access to shade.**

24.2.2.1 Employees suffering from heat illness or believing a preventative recovery period is needed, will be provided access to an area with shade that is either open to the air or provided with ventilation or cooling for a period of no less than five minutes.

24.2.2.2 Such access to shade will be permitted at all times. Cooling measures other than shade (e.g., use of misting machines) may be provided in lieu of shade.

**24.2.3 Training.**

24.2.3.1 **Employee training.**

Training in the following topics will be provided to all supervisory and non-supervisory employees.

24.2.3.1.1 The environmental and personal risk factors for heat illness;

24.2.3.1.2 The department’s procedures for complying with the requirements of this standard;

24.2.3.1.3 The importance of frequent consumption of small quantities of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties;

24.2.3.1.4 The importance of acclimatization;

24.2.3.1.5 The different types of heat illness and the common signs and symptoms of heat illness;
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24.2.3.1.6 The importance to employees of immediately reporting to the department, directly or through the employee’s supervisor, symptoms or signs of heat illness in themselves, or in co-workers;

24.2.3.1.7 The department’s procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary;

24.2.3.1.8 The department’s procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider;

24.2.3.1.9 The department’s procedures for ensuring that, in the event of an emergency, clear and precise direction to the work site can and will be provided as needed to emergency responders.

24.2.3.2 **Supervisor training.**

Prior to assignment to supervision of employees working in the heat, training on the following topics will be provided:

24.2.3.2.1 The training for all employees as described above.

24.2.3.2.2 The procedures the supervisor is to follow to implement the applicable provisions in this section.

24.2.3.2.3 The procedures the supervisor is to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.

24.2.3.2.4 The department’s procedures will be in writing and made available to employees.
24.3 **Roles and Responsibilities**

24.3.1 **Heat Illness Prevention Program Manager**

The Countywide administration of the Heat Illness Prevention Program will be the responsibility of the Occupational Safety and Environmental Compliance Division (OSEC).

Responsibilities:

- Oversees the Countywide Heat Illness Prevention Program
- Maintains central records for the administration of the program. (i.e. training, annual reviews, OSHA Log 300).
- Acts as liaison with all affected Departments.

24.3.2 **Agency/Department Heat Illness Prevention Coordinator**

The Agency/Department Coordinator acts as liaison between his/her department and OSEC. The department head will appoint this position.

Responsibilities:

- Coordinates or delegates training for the agency or department.
- Confirms that personnel attend training classes.
- Confirms that adequate supply of water and shade providing structures are maintained.

24.3.3 **Employees**

Employees affected by this plan should be conscientious and follow necessary safe work practices.

Responsibilities:

- Attend all necessary training.
• Wear the prescribed personal protective equipment.

• Follow safe work practices.

24.4 Program Reviews.

Annual program reviews shall be performed by, or by the direction of, the Agency/Department Heat Illness Prevention. OSEC will maintain the program review records.

The following items need to be addressed by the designated person performing the program review:

• Ensure that written control procedures are in practice and accessible to affected employees.

• Ensure that affected employees receive the necessary initial training and annual refresher training.

• Ensure that affected employees have access to an adequate supply of water and shade while on the job.

24.5 Applicable Regulations

California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 7, General Safety Orders Group 2, Safe Practices and Personal Protection Article 10, Personal Safety Devices and Safeguards, Section 3395, Heat Illness Prevention.

24.6 Appendices

24.6.2 Appendix A: Definitions

"Acclimatization" means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.
"Heat Illness" means a serious medical condition resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, heat syncope and heat stroke.

"Environmental risk factors for heat illness" means working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees.

"Personal risk factors for heat illness" means factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.

"Preventative recovery period" means a period of time to recover from the heat in order to prevent heat illness.

"Shade" means blockage of direct sunlight. Canopies, umbrellas and other temporary structures or devices may be used to provide shade. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning.