



Risk Control BULLETIN

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Heat Illness Prevention: Water. Rest. Shade.

California sweltered through triple digit heat during the past week. Deadly heat waves are expected to get worse. Temperatures hit record highs of 106, 105, and 103 degrees in Santa Rosa, Livermore, and San Jose, California.

Employers are responsible for providing protection from extreme heat. Procedures used to control this exposure should be described in a written heat illness prevention program. The basics are familiar to everyone. Provide water, rest, and shade. But effective implementation is in the details of the agency-specific, or even the site-specific plan. Be sure your written program meets the requirements by comparing it to the [Cal/OSHA Employer Sample Procedures for Heat Illness Prevention](#). The name of designated person(s) with the authority and the responsibility to implement heat illness procedures at the site (supervisor, foreman, crew lead) should be on the plan.

Water

Cal/OSHA reminded employers in a recent press release (June 21, 2017) that outdoor workers must be provided with fresh water and encouraged to stay hydrated, especially during heat waves. "Outdoor workers should have enough fresh, pure and suitably cool water so that they **drink at least one quart per hour** during the workday, and should not



wait until they are thirsty to hydrate." **That means one quart per employee per hour for the entire shift.**

Employers may begin with smaller quantities of water if they have procedures in place for replenishment during the shift. The Cal/OSHA Sample Procedures recommend starting the shift with at least two quarts per employee, with

specific procedures to replenish supplies throughout the shift. Water levels should be checked on a regular schedule (e.g. every 30 minutes or every hour), and refilled when the container drops below half full.

Supervisors should provide daily reminders to employees regarding the need to drink water before they are thirsty. Daily tailgate meetings when the temperature exceeds 80 degrees are important to remind employees about drinking water, rest breaks, and the signs and symptoms of heat illness. When temperatures exceed 95 degrees during a heat wave, pre-shift meetings increase in importance with reminders to employees regarding cool-down rest and an increase in the number of water breaks.

Rest (in the Shade!)

Shade must be present when the temperature exceeds 80 degrees. Shade structures may be open to the air, or provided with ventilation or cooling, and should be located as close

as possible. The amount of shade must be large enough to accommodate employees on rest periods so they can sit in a normal posture and be fully in the shade without physical contact with each other. The same requirements apply to meal periods. The interior of a vehicle may not be used to meet the shade requirement unless the vehicle is air conditioned and the air conditioner is on. If a tree will be used to provide shade, the shaded area will be evaluated to be sure it is sufficient to meet the requirements.

Encourage employees to take a preventative cool-down rest in the shade to cool down before they feel sick, for a minimum of five minutes. Monitoring employees for signs of heat illness and being prepared to offer appropriate first aid or emergency response is also required.

Monitoring the Weather

The supervisor, or responsible person on the site, will be trained to check the extended weather forecast prior to each workday. The forecasted temperature and humidity for the worksite will be reviewed and compared to the National Weather Service Heat Index to evaluate the risk level for heat illness. The [OSHA-NIOSH Heat Safety App](#) has been updated and is available online for both Android and iPhone. (The original OSHA app will no longer function after September 30.) Employers should encourage workers to use the app to check the heat index and appropriate protective measures. The app also forecasts the hourly heat index throughout the entire workday, providing information for supervisors to adjust the work schedule as needed.

Beyond the Basics: High Heat Procedures

When the temperature climbs to 95 degrees or more, high heat procedures that go beyond the basics are required. The Cal/OSHA Sample Procedures recommend adjusting the work schedule to reduce time in the heat, (e.g. working during cooler hours). During a heat wave, tailgate meetings should review the weather

forecast and emergency procedures for the site. If the schedule cannot be reduced, workers will require an increased number of water and rest breaks, and should be monitored closely for signs and symptoms of heat illness. A “buddy system” should be required to identify signs and symptoms of illness, and to ensure emergency procedures are started immediately if signs of illness are detected.

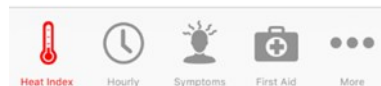
The site-specific high heat procedures should describe a communication method with employees at the worksite. Cal/OSHA considers the following methods to be effective:

- ◆ Direct observation by supervisor for signs of heat illness (20 or fewer employees)
- ◆ Mandatory buddy system
- ◆ Regular communication with employee working alone such as by radio or cell phone

Note: One of the biggest challenges in some areas is limited cell phone reception. If you have known “dead areas”, a communication method that does not rely on cell phones will be required. If the employee is working alone, a plan to contact them frequently by phone or radio is required. An employee with heat illness may not be able to call for help on his own.

Emergency Response Procedures

Many agencies have remote sites where emergency services are not readily available. If the worksite is more than 20 minutes away from a hospital, it is recommended that emergency services be contacted for assistance. The supervisor or responsible person assigned to a work site should have a map of the site, along with road names and clear directions to guide emergency services to the site. A designated employee may be assigned to go to the nearest road where emergency responders can see them to guide them to the ill employee.



Providing emergency responders with clear directions to the work site may mean the difference between a heat illness and a fatality.

Again, cell phone reception may be limited at more remote sites and careful consideration should be given to the communication method for employees who may need to contact emergency services. Written procedures for instances of severe heat illness are required and include: remaining with the employee, offering onsite first aid, and contacting emergency medical services.

Supervisor & Employee Training



A generic training on the signs and symptoms of heat illness are not enough to satisfy the training requirements for an employer's site-specific heat illness procedures. The Cal/OSHA Heat Illness training requirements include many references to the employer's site-specific procedures. Employee training should be ongoing, with daily reminders of the day's weather conditions and the procedures for the outdoor work scheduled for that day. Supervisor training requirements go well beyond employee training to include:

- ◆ Agency-specific written heat illness procedures
- ◆ Responsibility to provide adequate water, shade, cool-down rests, and access to first aid
- ◆ Employee rights and the prohibition against retaliatory measures
- ◆ How to monitor weather at the job site on the internet and with the heat app

- ◆ How to establish rest breaks and encourage adequate drinking of water
- ◆ How to replenish water supplies on the site
- ◆ How to modify work schedules, water, and rest breaks during heat waves
- ◆ Additional requirements of high heat procedures
- ◆ Importance of tailgate meetings when temperatures exceed 80 degrees
- ◆ Procedures for new employees and employees who are not acclimatized
- ◆ Appropriate first aid and emergency responses to different types of heat illness (e.g. how to respond to minor symptoms versus signs of life threatening illness)

Each year thousands of workers become ill from occupational heat exposure, and some illness results in fatalities. An agency-specific heat illness program with clear procedures rather than generic language can make the difference. The resources below can help employees work safely in the heat.



Re-sources

[OSHA Occupational Heat Exposure](#)
[Cal OSHA Heat Illness Prevention](#)
[OSHA Quick Card - Protecting Workers from Heat Stress](#)
[OSHA-NIOSH Heat Safety Tool App](#)

Ergo Corner

MANUAL MATERIAL HANDLING SOLUTIONS

FROM H.R. LABOUNTY SAFETY AWARD WINNERS 2017

Cucamonga Valley Water District

Easier Way to Lift Vault Lids



Problem: District in process of replacing vault access hatch lids weighing up to 500 pounds, requiring the strength of two people to gain access.

Solution: Industrial lifting magnets capable of holding 1,500 pounds were attached to the arm of a vehicle mounted crane, allowing one worker to safely remove the old access hatch.

Benefit: Reduced risk of injury (sprains/strains and hands caught in pinch-points) increased accessibility and eliminated equipment damage.

Crescenta Valley Water District

Easier Way to Move Road Plates



Problem: Difficult to safely maneuver and position heavy road plates being hoisted into or out of position. Plates are guided into position with a square shovel requiring employees to stand too close to the plate.

Solution: A magnetic positioning tool was purchased to improve employee safety.

Benefit: The tool reduced the risk of being struck by a plate as it allows workers to stand further back from the plate.

What's Wrong With This Picture?

Look at the photo below and identify what is wrong in the picture. You may want to re-view this picture during your next safety meeting.



H.R. LaBounty Safety Awards Program

We are now accepting applications
for the fall round of safety awards.

Submit your nomination to
tlofing@acwajpia.com. The nomination forms can be found on the
JPIA's website at

[http://www.acwajpia.com/filecabinet/rmnopw/
Safety Incentive Nomination Form 3-17.pdf](http://www.acwajpia.com/filecabinet/rmnopw/Safety%20Incentive%20Nomination%20Form%203-17.pdf)

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Answer (What's Wrong With This Picture?)

Housekeeping and maintenance issues should be identified during periodic safety inspections. The Injury and Illness Prevention Program (IIPP) would include a list of sites/facilities requiring inspection, the inspection frequency, and the person responsible. The hazard correction system would also be described in the IIPP. A hazard correction tracking log designating the person responsible for hazard correction and the date completed is often used.