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**Guest Commentary** 

## Cooling for Construction: More Challenges, but More Alternatives

Division of Occupational Safety and Health (DOSH) regarding the heat illness prevention standard, General Industry Safety Orders §3395, and how it is to be enforced effectively. Much of the focus has been on its application, especially with the weather turning warmer. Heat waves have already started and we're less than halfway through spring.

Much of the discussion has been focused on providing shade. Section 3395 says

"(d) Access to shade. Employees suffering from heat illness or believing a preventative recovery period is needed, shall 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. Such access to shade shall be permitted at all times. Except for employers in the agricultural industry, cooling measures other than shade (e.g., use of misting machines) may be provided in lieu of shade if the employer can demonstrate that these measures are at least as effective as shade in allowing employees to cool."

For the past three years, the majority of the construction industry (and a few other industries) interpreted this to mean that shade had to be available, not necessarily erected. For example, it was believed that having "pop-up" shade accessible on the truck [was enough], so that any worker feeling the need for a preventative recovery period could walk over, erect the pop-up and have the needed shade. But according to the recent interpretation issued, this would not meet DOSH's compliance expectations.

At most construction sites, having a shade structure erected for 25% of the crew and continuously up is not a major issue. However, for highway workers, mobile crews and sites with unique aspects to the work or their location, this may be problematic and infeasible.

Imagine a highway crew working down a road. Not only would it be unsafe to erect a structure in the right of way, but if they had erected a shade structure, it would easily be two miles (or more) away by the time someone needed it.

Employers (other than in agriculture), who can demonstrate that it is infeasible for them to have the shade up at all times, may have a written policy for a "shade upon request" procedure, which must be clearly communicated to the affected employees. They may also provide alternate cooling measures as a complete alternative to shade as long as they can demonstrate that it is at least as effective as shade in allowing employees to cool.

There are a lot of technologies and products in the market that can meet that shade alternative. There are hundreds of personal cooling products available, such as "cool ties" and cooling vests. When using cool ties, I



recommend that you train your employees to soak them the night before and then put them in the freezer. In the morning, workers can put them in their lunchbox, and by the time they need them, they are ready to go. Contractors also have available misting stations and personal misting units.

In addition to cooling products, I recommend job/crew rotation and increased break frequency, along with sun shades that fit on your hard hat. If your local noise ordinance allows, starting and stopping a job earlier is another option.

Regarding DOSH's "trigger" of 85°F for having shade erected at the start of a work shift, for the construction industry, compliance using a trigger adds more management and possible confusion for the average employer. The Division interprets the standard to require employers to determine whether they need to have the shade up if the weather prediction for the following day is 85 degrees or higher (or you could use a thermometer on your site).

In my opinion, it is difficult and unenforceable to require your supervisors to watch the news. Thermometers are good, but you need to ensure they are properly calibrated and that they work properly and accurately. It is much easier and [more] efficient to have the shade up at the start of shift, if feasible, no matter the weather prediction. If it is not feasible, it is easier [more] and efficient to have the alternative cooling measures in place at the start of shift without waiting for a trigger.

Whichever method you choose, ensure that you have trained your supervisors and employees on heat illness prevention. Constant reminders and encouragement to drink plenty of water, use shade as needed, know your company's emergency procedures, and know the signs and symptoms of heat illness are a must.

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