OSHA Launches a Heat National Emphasis Program

By Richard Crans, Occupational Hygienist

Living in the New England area we’re used to regular changes in weather patterns that can have a significant impact on our work environments. With any luck we’re done with the cold, but here comes the heat and humidity! Many in our workforce work outside. Those that work inside may not be in temperature managed areas. Exposure to extreme heat in both settings can potentially create significant employee health and safety concerns. Any process or job site that is likely to raise the workers’ deep core temperature (often listed as higher than 100.4°F (38°C)) raises the risk of heat stress. Heat stress can result in heat related illnesses such as heat stroke, heat exhaustion, heat cramps, or heat rashes. Heat can also increase the risk of injuries in workers as it may result in sweaty palms, fogged-up safety glasses, and dizziness. Heat related illnesses can have a significant effect on productivity and the ability to conduct certain tasks. Although illness from exposure to heat is preventable, every year, thousands of workers become sick from occupational heat exposure. Some cases are fatal, see the Hazard Corner on Page 5 of this issue.

OSHA holds employers responsible for providing workplaces free of known safety hazards. This includes protecting workers from extreme heat. OSHA has launched a National Emphasis Program (NEP) to protect millions of workers from heat illness and injuries. As part of the program, OSHA will proactively initiate inspections in over 70 high-risk industries in indoor and outdoor work settings when the National Weather Service has issued a heat warning or advisory for a local area. On days when the heat index is 80°F or higher, OSHA inspectors and compliance assistance specialists will engage in proactive outreach and technical assistance to help stakeholders keep workers safe on the job. Inspectors will look for and address heat hazards during inspections, regardless of whether the industry is targeted in the NEP.

We can’t change the weather, but a little bit of planning can go a long way toward keeping workers safe. Employers routinely create a plan for the day’s work. The best way to prevent the negative effects of temperature on your workers is to include the impact of heat/cold in daily work plans. There are many factors to consider when planning for hot work. Temperature, relative humidity, and sun exposure are an obvious starting point. Resources like the local news and weather apps help forecast what it might be like for the day. You then need to consider the level of activity the workday may require, and the level of clothing and/or PPE an employee may need to wear. In addition, always look for sources of heat that may be unavoidable such as hot surfaces or mechanically generated heat. There are numerous factors that can have an

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impact on workers that are harder to account for. Age, weight, degree of physical fitness, degree of acclimatization, metabolism, dehydration, use of alcohol or drugs, and a variety of medical conditions such as hypertension all affect a person's sensitivity to heat. The keys to implementing an effective plan are training, routine observations, and the ability to adapt to conditions when needed.

We have a lot of tools to assist in preventing the harm associated with heat exposure in the workplace. Engineering controls work to lessen a hazard or remove the worker from the effects of a hazard. For example, air conditioning or improved ventilation in a work area will lower the temperature or aid in evaporative cooling. Shielding such as working under a canopy may help block the radiant heat load as well as ultraviolet exposure.

Administrative controls are strategies which may not change the conditions but rather work to reduce the impact of exposure. Some examples of administrative controls may include acclimatizing workers to conditions, maintaining the availability of replacement fluids, providing recovery areas for breaks, reducing physical demands, rescheduling tasks to a cooler time of day or to a day with lower temperatures, and monitoring workers for early signs or symptoms of extreme heat exposure.

On OSHA's Heat Illness Prevention Website there are numerous resources for planning and training employees. These resources are available in multiple languages. NIOSH and OSHA have developed an app that will specifically aid in determining the relative heat hazards in your area. The app also provides information to help recognize symptoms and, when needed, appropriate first aid. And of course, the CONN-OSHA Consultation program is available to assist Connecticut employers in developing strategic approaches for addressing heat-related illnesses and injuries in workplaces.
Farewell to John Able

John has retired from state service after spending 27 years with the Connecticut Department of Labor-OSHA Division. During the decades John was employed with the agency, he worked as a private sector safety consultant and an Occupational Safety Training Specialist. While working in these two capacities John found that it was professionally rewarding to help employers find cost effective measures to improve their safety culture and reduce work-related injuries. He also recognized the need to provide these employers with a safety-focused group that could meet routinely, network and gain support from others with similar challenges. To that end, he launched the “CONN-OSHA Breakfast Roundtable” in 2003. As of March 1, 2022, the Breakfast Roundtable had held 227 meetings, with over 7,800 attendees!

John is a Certified Safety Professional with a MS in Mechanical Engineering from UConn. Before joining CONN-OSHA he spent 4 years in the Air Force, and he managed lead and asbestos abatement projects for several environmental services companies.

When asked what he valued most about working for CONN-OSHA John explained “I learned so much over the years from all the wonderful people I met. Providing safety training enabled me to make a small difference in somebody’s life. Attendees would leave a session and I would feel good that I met them, hoping that their awareness about safety issues increased, and that this knowledge would spill over to their families.”

After his retirement from CONN-OSHA John plans to move on to a different, more hands-on part-time career. A small private social services organization that supports people with developmental disabilities has hired him to be their handyman, i.e., “Jack of all Trades,” supporting their four residential group homes, condos and apartments.

We wish John well and we plan to carry forth his legacy by continuing to host the monthly Breakfast Roundtable series.

Welcome Darlene Cookson

Darlene joins us as an Occupational Safety Officer. She has over 20 years of experience in the safety and health field, mainly in the construction sector. She also has six years of teaching experience.

Welcome Lisa Kortfelt

Lisa joins us as an Occupational Safety Officer. She previously worked as the Safety Director for Southern CT State University where she had worked since 2016. Prior to that she worked at Eastern CT State University for 13 years.

Welcome Steve Sartirana

Steve joins us as an Occupational Safety Officer. He had been working for CT DOT for approximately 35 years with the last 15 years working in DOT Safety.

Welcome Kate Decker-Wurm

Kate joins us as an Occupational Hygienist. She previously worked for the UConn Environmental Health & Safety Unit where she had worked as an EH&S specialist since 2018. Prior to that she worked as a professional educator of chemistry and lab coordinator for Western New England University.

How to Subscribe

Contact grayson.gregory@ct.gov and in the subject line type “Subscribe” and then provide your e-mail address in the body of the message.
<table>
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<tr>
<th>Training Schedule</th>
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<tr>
<td><strong>Virtual OSHA 300 Recordkeeping - What Does and Does Not Need to be Recorded</strong></td>
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<tr>
<td>5/31/22</td>
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<td>The purpose of this workshop is to introduce the requirements and procedures related to OSHA Injury &amp; Illness Recordkeeping. The class will help develop skills to accurately complete documents required by this rule (OSHA 300, OSHA 300A and OSHA 301), or if you supervise the person that completes the forms this class is a must!</td>
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<tr>
<td><strong>Virtual Trenching and Excavation</strong></td>
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<td>Studies show that excavation work is one of the most hazardous types of work done in the construction industry. Injuries from excavation work tend to be of a very serious nature and often result in fatalities. The primary concern in excavation-related work is a cave-in. Cave-ins are much more likely to be fatal to the employees involved than other construction-related accidents. This workshop will provide an overview of 29 CFR 1926.650 - 652, Excavations, including the role of the competent person.</td>
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<tr>
<td><strong>Virtual Powered Industrial Trucks</strong></td>
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<td>The OSHA 1910.178 Powered Industrial Truck Standard requires formal instruction, practical training, and evaluation of operator performance for both General Industry and Construction Industry material handling operations. Does your training program meet the standards requirements? This one-hour virtual class will provide an overview of the standard and its requirements.</td>
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<td><strong>Breakfast Roundtable</strong></td>
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<td>3rd Tuesday of the Month</td>
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<td>These meetings cover subjects ranging from evacuation plans and fire extinguishers to air quality and ergonomics. The intent of these free 90-minute workshops is to discuss safety and health issues in a supportive and informal environment. The roundtable meetings are held from 8:15 am to 9:45 on the third Tuesday of the month.</td>
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Visit this link for more info and to sign up.
Hazard Corner: Heat Stroke can be Fatal

Case #1 Farm Worker
A 44-year-old Hispanic migrant farm worker died after succumbing to heat stroke while working in a tobacco field. The victim arrived on the farm from Mexico. He was assigned to work in the tobacco fields, where he worked for a week. The following Tuesday, eleven days after arriving in the U.S., he started work at 7 a.m., had a short break between 9 and 10 a.m. that included soda and crackers, and ate lunch between noon and 1 p.m. The weather was hot and humid with a heat index (a measure of the combined effects of high temperatures and high humidity on the body) between 100 and 110. He had been working in a tobacco field when around 3 p.m. he complained to the crew leader that he was not feeling well. The victim drank some water and was driven back to the workers’ housing and left alone to rest. At approximately 3:45 p.m. the victim was found unconscious on the steps of the house. Emergency medical service personnel were immediately called and responded within five minutes. The victim was transported to the hospital where his core body temperature was recorded at 108ºF and he was pronounced dead. NIOSH investigators determined that to help prevent similar occurrences agricultural employers should:

- Develop, implement, and enforce a comprehensive safety and health program which includes standard operating procedures for prevention of heat-related illnesses.
- Monitor environmental conditions and develop work/rest schedules to accommodate high heat and humidity.
- Provide an appropriate acclimatization program for new workers to a hot environment, workers who have not been on the job for over a week, and experienced workers during a rapid change to excessively hot weather. Most outdoor fatalities, 50% to 70%, occur in the first few days of working in warm or hot environments because the body needs to build a tolerance to the heat gradually over time.
- Provide prompt medical attention to workers who show signs or symptoms of heat illness.

Case #2 Foundry Worker
A 35-year-old employee had worked at a foundry for six years. The indoor workplace had high levels of environmental heat from ovens and molten metal. His normal job tasks were in a cooler area of the building. On the day of the incident, he was asked to perform a job in a hotter environment near an oven. He wore heavy protective clothing to prevent skin burns. After several hours of work, the man collapsed and died of heat stroke. Lessons to learn from this case:

- Heat-related illness can occur indoors. The risk is not limited to outdoor workers.
- Some types of work clothing prevent the release of heat from the body. Environmental heat measurements underestimate the risk of heat-related illness in these situations.
- Workers are at risk of heat-related illness when they are reassigned to warmer job tasks.