OSHA Turns Up the Heat on Heat Illness

Article By:

Lawrence P. Halprin

On October 18, 2021, the White House Office of Management and Budget (OMB) cleared for publication what the Spring Regulatory Agenda describes as a Request for Information (RFI) designed to collect information that the Occupational Safety and Health Administration (OSHA) will use to support the development and adoption of a Heat Illness Prevention Standard for Indoor and Outdoor Work Settings. It is expected to be published in the Federal Register shortly.

The Biden Administration has identified this initiative as a high priority and may attempt to develop and adopt a final rule in this term. OSHA explains the reasons for this initiative as follows:

- "Heat stress killed 815 US workers and seriously injured more than 70,000 workers from 1992 through 2017, according to the Bureau of Labor Statistics [BLS]."[1]
- "[T]his is likely a vast underestimate, given that
 - injuries and illnesses are underreported in the US, especially in the sectors employing vulnerable and often undocumented workers [and] ...
 - heat is not always recognized as a cause of heat-induced injuries or deaths and can easily be misclassified because many of the symptoms overlap with other more common diagnoses."
- "The risk of dangerous exposure to heat and heat illness is increasing, [apparently due to climate change], as 18 of the last 19 years were the hottest on record."
- "Essential jobs where employees are exposed to high levels of heat are disproportionately held by Black and Brown workers."

In the absence of a standard addressing hazardous workplace exposure to ambient heat, OSHA has been forced to rely on the General Duty Clause (GDC) of the OSH Act to bring enforcement actions where it believes workplace exposures to heat pose a hazard to workers. OSHA has found reliance on the GDC to be challenging and ineffective because:

• It has not been able to validate the model it relies on to establish hazardous heat exposures --

the National Weather Service Heat Index.

• Where alleged cases of heat illness have been identified by inspectors, OSHA has not been able to demonstrate the conditions were caused by heat stress as opposed to an underlying medical condition and/or the use of prescribed drugs.

While the hazard of exposure to excessive heat is real, the development of a reliable and practical model that can be used to set appropriate permissible exposure limits (PELs) and action levels (ALs) is complicated. First, the general understanding is that the impact of heat exposure should be based on its effect on the core temperature of the body. We believe, consistent with the NIOSH Criteria Document for a Recommended Standard for Occupational Exposure to Heat and Hot Environments, this requires a model that accurately and reliably takes into account total metabolism, external work performed, convective heat exchange, radiative heat exchange, conductive heat exchange, and evaporative heat loss. These factors are significantly affected by the nature of the work, the duration of the work, the timing of breaks, where it is being performed, humidity, wind, and the clothing worn by the worker. It seems questionable whether the simpler California approach, which is based on two temperature levels, 80 F and 95 F, would satisfy the rulemaking criteria of the OSH Act. Second, studies indicate that individuals have varying capacities to deal with heat exposure. Third, assuming OSHA proceeds to develop a PEL and AL, employers would need a readily available means of determining whether employee exposures exceed the PEL or AL. Implementation of the American Conference of Governmental Industrial Hygienists Threshold Limit Values (ACGIH TLV) for heat stress or a similar model would require job-specific assessments and, in many cases, task-specific assessments, taking into account the range of conditions under which the work will be performed. That data would be fed into a software application so that on-site personnel could determine whether an AL or PEL would be or was exceeded and adjustments to work assignments would be needed.

On a practical level, employers could use the expected OSHA rule as a guide in making work assignments designed to avoid overexposure, and then rely on experience and a program with recognized protective measures that required workers to take a break or get assistance if they sensed more than the normal heat-related discomfort.

The OSHA Request for Information is likely to address at least three issues:

- 1. Identification of the potentially available and validated models for assessing heat stress and determining when conditions should be considered hazardous, and supporting data.
- 2. A description of the triggers/models and workplace practices employers have implemented to prevent heat illness.
- 3. A description of how effective those practices have been in preventing heat-related illness. Or the agency may more directly ask questions such as: How many heat-related illnesses (or directly related injuries e.g., worker faints from heat exposure and falls causing broken bone, laceration, concussion, etc.) have you experienced on an annual basis for the last x years? What was their severity? What were the working conditions (e.g., indoor, outdoor, direct sunlight) at the time? Were the illnesses diagnosed by a physician or other medical professional? Were they more prevalent in any particular season? etc.

National Law Review, Volume XI, Number 295

Source URL: https://natlawreview.com/article/osha-turns-heat-heat-illness