

United Steelworkers

**Comments of the United Steel, Paper and Forestry, Rubber,
Manufacturing, Energy, Allied Industrial, and Service Workers
International Union, AFL-CIO
On the
New Mexico Environment Department Occupational Health and Safety Bureau
Proposed Rule, Request for Comments on
EIB 25-11 (R) New Regulation 11.5.6 NMAC-Heat Illness and Injury Prevention
Filed Electronically: nmed.commentinput.com**

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These comments are submitted on behalf of the United Steelworkers Union (USW or Steelworkers). Our union is the largest industrial union in North America, representing workers in steel, aluminum, and other metals; paper; oil; rubber; plastics; glass; cement; mining; energy; chemicals; refining; utilities; health care; atomic; education; manufacturing; service; and other sectors.

We commend and thank New Mexico Occupational Health and Safety Bureau (OHSB) for their actions to develop a standard to protect both outdoor and indoor workers from heat injury and illness, as well as the opportunity to comment on the Proposed Rule. We thank OHSB for requesting comments and input from interested stakeholders.

Climate change has impacted outdoor and indoor workers with increases in heat waves and excessive summer temperatures. Even the cooler months have higher temperatures. As global temperatures rise, with 2024 being the warmest year on record, each year heat waves are growing in severity, duration and deadliness. In the midst of this, at least two Southern states have promulgated laws that prohibit local ordinances from requiring heat protections like rest breaks. USW supports this proposed rule for a strong Heat Injury and Illness Prevention rule that will offer robust health and safety protections from heat-related hazards to both outdoor and indoor workers.

Outdoor and indoor workers have long needed a permanent, comprehensive standard to protect them from the hazards of heat injury and illness on the job. Without the strong interventions and controls provided by a comprehensive standard, workers exposed to occupational heat-related hazards are not only at risk of reduced productivity, but at risk of injuries, illnesses, and death.

We strongly support New Mexico's efforts to protect workers from heat-related hazards in the proposed rule. A standard on heat is clearly needed. Without a standard, enforcement must rely on the general duty clause which has limitations, particularly for heat. Federal OSHA has issued limited general duty clause citations to address heat and has encountered legal obstacles when using the general duty clause. The general duty clause has not been sufficient at requiring employers to implement control measures to prevent heat-related injuries or illnesses. When a citation has been issued, it has almost always been after a fatality or hospitalization. Even then, a citation is not always able to be issued. In 2021, a worker in New Mexico died of heat related illness and no citations were issued. A heat specific standard is needed to prevent fatal and non-fatal injuries and illnesses.

While OSHA's efforts to issue general duty clause citations to address heat-related hazards in industries where USW members are employed have shown some improvement, the general duty clause citations have proven insufficient in protecting workers from preventable heat-related injury, illness, and death. For example, in 2019, the Occupational Safety and Health Review Commission (OSHRC) overturned a federal OSHA general duty clause citation after the Secretary failed to establish the heat stress hazard that resulted in a roofer's death.¹ Relying on the general duty clause leaves the burden of proof on OSHA. Even with the severity of heat hazards that took the roofer's life, the OSHRC's decision demonstrates the difficulties of enforcing and establishing a heat-related citation without a specific heat-related standard.

USW members face occupational heat stress in the steel, aluminum, and other metals; paper; oil; rubber; plastics; glass; cement; mining; energy; chemicals; refining; utilities; health care; atomic; education; manufacturing; service; and other industries or sectors. As a result of these exposures, our members have experienced heat stroke, heat exhaustion, heat cramps, heat syncope (fainting and dizziness), heat rash and rhabdomyolysis (muscle breakdown). They have required oral and intravenous (IV) fluid therapy and acute medical care. In one instance, a USW member's heat stroke symptoms were mistakenly interpreted by his employer as an impairment from a controlled substance. Fortunately, a trained, in-plant emergency responder correctly recognized the symptoms of heat stroke, and helped our member receive the urgent medical care necessary to save his life.

Sadly, occupational heat exposure has cost USW members their lives. In reviewing our data on heat-related fatalities, several members suffered what appeared to be fatal heart attacks caused by hot environments and strenuous work. One member collapsed with apparent heat-stroke and later died after working in 107-degree heat index temperatures at a chemical plant. Another member was fatally injured after working in a warehouse with temperatures between 102 and 112 degrees. He was removed from the work area and taken to the cafeteria where he collapsed, and later died. Another member's life was almost taken after wrapping coils of metal in 126-degree temperatures and being overcome by heat exhaustion. Had our member not received prompt medical attention, the outcome could have been fatal.

Our members, and workers in general, who work in heat-related hazardous conditions are at even higher risk of injury, illness and death. These workers face injuries from slippery sweat; fogging of personal protective equipment that protect a worker's face and eyes; dizziness; hot tools; and equipment. Preventing overexposure to heat is simplified when employers have developed and implemented a comprehensive written Heat Injury and Illness Prevention Program (HIIPP) specific for their workplace or worksite, and applies the hierarchy of controls. Workers and their representatives need to be the core source of information for the development and implementation of the HIIPP.

USW appreciates the opportunity to help create safer workplaces by providing comments on the proposed rule. These comments are in support of the issuance of a new rule, offering our suggestions to improve the proposed rule, and examples of our experiences, good and bad, as to why a comprehensive standard is needed to make workplaces safer.

¹ [OSHRC Docket No. 13-0224](#), Secretary of Labor v. A.H. Sturgill Roofing, Inc.

USW's Support of the Proposed Rule and General Comments

1. Heat Injury and Illness Prevention Program (HIIPP):

- a. We support OHSB requiring employers to have a written HIIPP. We feel that employers should be required to seek the input and involvement of non-managerial employees and their representatives, if any, in the development and implementation of the HIIPP.
- b. We commend OHSB requiring the HIIPP be available in the language understood by the majority of the employees, but feel this should be taken farther to require the plan be available in a language each and every employee and supervisor understands.
- c. OHSB should not only require the employer to make the HIIPP readily available at the worksite to all employees performing work at the worksite, but to all non-managerial employees and their representatives, if any.
- d. USW commends OHSB for requiring all workplaces, regardless of size, to implement a HIIPP.

2. Heat Exposure Assessment:

- a. We commend New Mexico requiring a heat exposure assessment to be conducted when the heat index threshold of 80 degrees F is met, and when conducting any job hazard assessments are part of the normal scope of work. Heat is a recognized workplace hazard as any other hazard, and should be treated as such.
- b. USW applauds the inclusion of taking the heat retaining effects of required protective clothing and PPE into account when conducting these hazard assessments, as this is an important element in the overall effects of heat on a worker's well-being.

3. Heat Acclimatization:

- a. Some employers have already instituted a heat acclimatization plan and procedure for new employees to acclimatize to hot environments, especially when employees are new to a job/task or have been off work for a few days or more. This can be done by gradually increasing both the duration of time spent working in a hot environment and workload. Some workplaces have thermometers placed at the entrances and at other various points within the workplace that turns red when the temperature reaches 80-degrees to let employees know of higher temperatures/heat indexes, take paid heat breaks and stay hydrated. We support the proposed rule addressing heat acclimatization.
- b. USW appreciates OHSB breaking down specific requirements for the heat acclimatization process, so that workers in all workplaces are provided the same protections when exposed to heat hazards capable of causing heat illness and injury.

Having standard approaches to heat acclimatization makes for easier training on multi-employer jobsites, across industries, and allows for workers to understand the process so they can advocate for their workplace health and safety.

- c. USW also commends OHSB for recognizing that an absence of seven or more days can be detrimental in the existing acclimatization of workers, and appreciates the added protection for employees returning to the exposure after time away.

4. Personnel Monitoring:

When workers are required to labor alone, employers must be required to implement lone worker procedures. Lone worker procedures must include a daily work plan so a supervisor knows when and where the lone worker is located, and use specific check-in and communication protocols. Lone workers cannot be allowed when conditions are hazardous enough to cause a recordable injury or illness. No employee shall be permitted to work at or above the high heat trigger unless there is at least one other person within sight or hearing distance when working alone. Having a buddy system is a simple way to have workers look out for each other, ensure that rest breaks are taken, early warning signs are flagged, and first aid is called for when needed. A USW member was approaching the last few hours of a 16-hour shift when he began to feel ill. After going to the break room where coworkers tried to hydrate and cool him off, emergency 911 was called to get him additional medical treatment. After emergency responders stabilized the victim, he was transported offsite, where he later died from his injuries at the young age of 42. The temperature on June 13, 2022 was approximately 90-plus degrees with high humidity. Following events like this, we are pleased to see OHSB address this item in the proposed rule, specifically including the requirement for regular communication with employees working alone and creating a mandatory buddy system. These mandatory program elements will save lives.

5. Training:

We applaud the proposed rule calling for training to be provided in a language and at a literacy level each employee understands. We do feel that this should specifically require the training to be conducted in a language and vocabulary readily understood by all supervisors as well. USW knows the value of peer-worker training to compliment the implementation of heat stress prevention programs. USW also knows first-hand the importance of information, training and procedures being delivered in a language and literacy level that employees can understand. A USW member, Apolonio Arras, 57, was killed when he attempted to restart an industrial furnace that was accumulating natural gas. His supervisor did not speak Spanish, and this breakdown in communications led to this preventable death.

Apolonio Arras, an Equipment Operator with four years of seniority, was helping a crew with startup preparations. Unaware that natural gas was accumulating inside a tempering furnace, Mr. Arras started the lighting process and an explosion occurred. Mr. Arras was found on the floor unconscious next to the furnace with refractory material and furnace roof metal plates around him suffering from severe head and face trauma. En route to a local trauma center, paramedics performed CPR as Mr. Arras was in full cardio arrest. When Mr. Arras arrived at the emergency room, he was immediately sent into surgery.

Sadly, lifesaving efforts were unsuccessful, and doctors notified the family that Mr. Arras succumbed to his injuries (approximately four-hours following the explosion). Some of the contributing facts to this fatal incident was the manufacturer's light up procedures were in English, and Mr. Arras did not speak or read English. Moreover, his employer did not have any written light up procedures of their own, nor had the employer made any procedures in Spanish. Therefore, his training was not adequate. His supervisor was aware of him lighting up the furnace and did not stop him from doing this alone. Supervision had attended a three-week training class by the manufacturer of the furnace, but few hourly employees attended this training.

6. Recordkeeping:

- a. USW supports and applauds the proposed rule requiring a record specific to all heat related illness or related injuries, including first-aid case, the heat index, and working conditions at the time of the illness or injury. Relying on the OSHA 300 Injury and Illness Log is not adequate in preventing heat-related injuries and illnesses. It's also unclear on what constitutes a heat illness on the OSHA 300 Log. Employers must establish and maintain an accurate record of all injuries and illnesses that happen in settings where heat-related hazards are present. By tracking these incidents, employers, employees and their representatives can look for themes and trends. These incidents should become learning events, examined to understand the environmental and working conditions involved at the time of the injury or illness, and to apply the hierarchy of controls. As the signs and symptoms of heat illness can be misdiagnosed and compound the problem, they can and do go underreported, giving employers a false sense of security. In one of our members' workplaces where molten and hot metal is handled; the employer could not produce any records of heat-related first aid or OSHA recordable cases in the last seven years. That same employer also did not have incident reports and other heat-related events or exposures, heat related information for specific department/job procedures, and no heat-related industrial hygiene inspections or recommendations. The USW also represents members employed at a gas company who work entirely in an outdoor environment. Since 2017, this employer's records showed that they only had four first aid cases and two illnesses that required medical treatment related to heat injury and illness.
- b. We also appreciate and support the final rule requiring records to be kept for five-years. Maintaining records will help identify themes and trends, updating of the HIIPP, and ensuring workers are protected.

USW's Concerns, Suggestions and Overall Comments to Improve the Proposed Rule

1. Scope and Application:

The final rule must apply to all workers exposed to heat-related hazards. No worker should be excluded from the final rule. Workers must be protected to prevent injuries, illnesses, and death as climate change is increasing the frequency and intensity of heat-related hazards.

- a. The final rule must include firefighting; emergency response/emergency medical services as the current regulations do not protect these workers from heat-related hazards.
- b. The standard should specifically lay out that it does apply to buildings and structures that have a mechanical ventilation system that keeps the heat index below 80 degrees Fahrenheit, but may have work areas that contain radiant heat sources. These work areas in an otherwise environment-controlled workplace may contain overlooked heat hazards. USW represents members that sit in operator pulpits, including crane cabs close to the processes and ceiling where the heat collects, and they may not be able to move from this station due to production requirements. Other members work near heat-producing equipment or processes, such as welding, brazing, extrusions, etc. and although the ambient temperature is under 80 degrees, these employees are still exposed to heat related hazards.

2. Heat Injury and Illness Prevention Plan (HIIPP):

- a. USW feels that missing from the HIIPP paragraph is a requirement for employers to review and evaluate the effectiveness of the HIIPP whenever a heat-related injury or illness occurs that results in death, days away from work, medical treatment beyond first aid, or loss of consciousness occurs and at least annually with input and involvement of non-managerial employees and their representatives, if any. As well as following each review, the employer must update the HIIPP as necessary with input and involvement of non-managerial employees and their representatives, if any, during any reviews and updates.
- b. OHSB has mistakenly left out the "hierarchy of controls" in the proposed rule. The hierarchy of controls must be included in an employer's HIIPP and in the final rule, similar to the requirements of 1910.95 Occupational Noise Exposure, 1910.134 Respiratory Protection, and other health standards. Many OSHA standards call for feasible administrative or engineering controls to be utilized as the primary objective to eliminate and reduce exposures. When effective engineering controls are not feasible, or while they are being instituted, appropriate administrative controls and PPE must be provided. Tools and special tools can also be provided that are intended to eliminate or reduce manual strain that causes heat exhaustion or stress. For example, our members are utilizing pneumatic tools to eliminate manual turning of large rolls by hand with hand cranks, and when operating large valves. Operations or work areas where occupational exposure to heat occurs, needs the hierarchy of controls applied to heat-related hazards to eliminate or reduce

exposures. Engineering controls such as increased ventilation, including air-conditioning and fans, must be installed in accordance with proper engineering and industrial hygiene practices and principles. Employers should also provide heat absorbing/reflecting shielding or barriers to redirect radiant heat; planking to remove contact with hot surfaces; and insulate hot surfaces where applicable. Additionally, employers should install controls that eliminate or reduce steam leaks, wet floors, or humidity. Administratively, some employers schedule work during cooler hours and/or wait for equipment to cool down, like changing filters in a dust collector. Workers and their representatives need to be the core source of information for the development and implementation of the HIIPP.

- c. Stop Work Authority (SWA) must be included in an employer's HIIPP, and in the final rule regarding heat-related hazards. SWA is the right of workers and their representatives to stop unsafe work and processes until the potential heat-related hazard or as they experience signs of heat-related illness is thoroughly investigated and abated to the satisfaction of non-managerial employees and their representatives, and management. SWA must also be included in the employer's procedures and training curriculum.
- d. As temperatures go up, Personal Protective Equipment (PPE) compliance and effectiveness could potentially go down, so comfort remains a top priority. The proposed rule must require employers to have input and involvement of non-managerial employees and their representatives when it comes to PPE; provide PPE that properly fits employees and the comfort of PPE must be considered when selecting such. PPE selection and use should be included in the Health Illness and Injury Prevention Plan section of the proposed rule.

Some of the challenges that workers face with PPE is that it can be too hot, fit poorly (for both male and female workers), look unattractive, and/or has poor performance (holds in body heat). Ways to enhance comfort without compromising safety and accomplishing the work must be considered. Layering is an optimal and flexible solution when conducting hazard assessments. Also, in a layered approach, workers can wear heavier, higher-rated outer gear in higher risk situations, and then remove this heavier clothing when the risk of injury is not as great, and still be protected by a lighter-weight protective base layer. When the total heat stress load reaches the threshold, employers could also provide PPE such as water-cooled garments, air-cooled garments, or cooling vests to protect workers from heat-related illness. Ultimately, in order to improve PPE results, it requires year-round support and engagement of management, workers, and their representatives – not just when the temperatures rise.

Around ten years ago, the USW and an employer negotiated a pilot program where the employer conducted core body temperature sampling. It was discovered that certain job tasks caused core temperatures to rise by one-degree due to the excessive heat exposures of their job tasks. As part of the countermeasures, ten flame resistant (FR) rated cooling vests were purchased for these workers to wear.

Regardless of the advancements in PPE that have been made over the years to improve the design and comfort, the ‘one-size-fits-all’ method still does not automatically apply. PPE that does not properly fit workers will fail to provide a worker with the necessary protection from heat-related hazards. The final rule must be clear that employers shall provide PPE that properly fits employees.

Some workers wear heavy protective clothing to protect them from fire, chemical exposure and other dangers. After union members cited mobility constraints, heat-related injuries and illnesses in these heavy protective clothing assigned to them, they worked with the manufacturer who sent representatives to the mill, and designed a better version that the employer ultimately purchased. This is another example of why the final rule needs input and involvement of non-managerial employees and their representatives in PPE selection and use, as well as the entire heat standard.

- e. Workplace staffing levels remain low, and workers have been doing more with less prior to and during the pandemic. In many cases, staffing levels are even worse following the pandemic. The final rule must require employers in their HIIPP to evaluate and identify minimum staffing requirements when it comes to job rotation and other exposures to heat-related hazards to ensure safer working conditions with input and involvement of non-managerial employees and their representatives.
 - f. Work rotation has not been included in the HIIPP requirements. Work rotation is already available at some USW represented locations and industries so this should not be difficult for employers to accomplish. One employer’s HIIPP provides some of the following: *when working in excessive heat conditions (e.g. high heat or high humidity), employees should be rotated whenever feasible to allow for cooling. In the most oppressive conditions (heat index of ≥ 107 with a moderate to high workload), a good rule of thumb would be 15-minutes of work to 45-minutes of rest or light work in a cooled area. In less demanding conditions (heat index of ≥ 107 with a light workload), a good rule of thumb would be 45-minutes of work to 15-minutes of rest or work in a cooled area.* The work/rest schedule is very dependent on individual conditions, such as physical fitness, age, medical conditions, prior heat-related illness, hydration levels, fatigue, air humidity, and perceptible air movement. The program also calls for working with employees to determine their individual physical needs in comparison to the ambient conditions and the exertion required to perform the task.
3. Heat Exposure Assessment:
- a. We are against using the heat index as a stand-alone way of assessing heat hazards. The Wet Bulb Globe Test (WBGT) must also be used when workers are exposed to radiant heat as this will help in determining and implementing controls to eliminate and reduce exposure in protecting workers. This is especially vital when working inside confined spaces, around heat producing machinery/equipment and heat producing substances like molten metals/glass, rubber, plastic, and so on. All risk factors related to heat hazards need to be considered to protect workers. These

include: 1) ambient temperature, 2) humidity, 3) radiant heat exposures, 4) wind speed, 5) work load, and 6) clothing. The Heat Index, proposed by OHSB as the primary metric, only considers the first two factors. The WBGT alternative also includes radiant heat and wind speed. Radiant heat is a very significant factor in estimating heat load. Wind speed can be an important factor at lower temperatures where it can have a cooling effect. Clothing is primarily a factor for workers who must wear impermeable or protective clothing that does not allow sweat to evaporate or increases heat body burden. Workload can add significantly to heat stress, particularly for workers in heat-related hazard industries. Workload and clothing need to be included in hazard assessments. At one USW represented workplace, the employer's Confined Space Entry Program requires evaluations and implementation of their heat stress prevention measures when the air temperature reaches their set limit. However, the workplace does not have a heat plan for areas outside of confined spaces, and employees are basically told to take paid breaks, hydrate, and stay cool. At a USW represented workplace, employees were exposed to excessive heat while performing indoor foundry-related work activities. Heat measurements within the foundry during a two-hour period in the afternoon revealed an inside Wet Bulb Globe Temperature (WBGT) ranging from 81.3 – 90.1 degrees with many of the measurements exceeding 84 degrees WBGT. Environmental conditions such as these where employees were performing moderate to heavy work was leading to the development of serious heat related injuries and illnesses. The employer failed to have a work/rest cycle for employees that was appropriate for the heat conditions in the work environment. Additionally, employees did not have access to sufficiently cool, climate-controlled areas where heat affected personnel could take breaks when recovering from excessive environmental conditions. OHSB needs to adopt the recommended action levels (RALs) from NIOSH's recommended standard for occupational exposure to heat and hot environments.

- b. The heat index is not a useful tool for indoor work environments and the proposed rule does not describe an alternative method for use in these facilities. This further highlights the need for inclusion of WBGT measurements in the assessment section of the proposed rule.
- c. The proposed rule specifically lists the National Weather Service as a resource to obtain the heat index for most outdoor work environments in New Mexico. At this time many National Weather Service locations, due to staffing and budget cuts at the federal level, are above the 20% vacancy levels that outside experts have said is a critical threshold. This also means less weather balloons are able to be released, creating less accurate weather forecasts. These unreliable reports again show the need for alternative means of assessing heat hazards, such as on-site WBGT measurements.

4. Provision of Fluids:

- a. Many USW represented workplaces provide workers with cold water and electrolytes (including bottled), freeze pops, fruit, and other provisions in user-friendly locations, all at no cost to employees. We support OHSB requiring employers to promote and support employees drinking water and electrolytes frequently. We believe the final rule should call for coolers to be placed in strategic locations to provide water and electrolytes to employees.

Although the proposed rule requires suitable hydrating fluids, to better clarify the intent, we recommend inserting a new bullet point “d.” to this paragraph that reads:

“The required drinking water shall be supplemented by the provision of drinks containing carbohydrates and electrolytes.”

- b. Additional protections for employees could be included in the proposed rule, simply by including an employer requirement to communicate to employees regarding fluid intake. This communication could include:

- Reminding employees throughout the work shift to drink plenty of water.
- Pre-shift meetings before the commencement of work to review the high heat procedures, encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest when necessary

5. Regular Rest Breaks:

USW appreciates the approach OHSB has attempted in addressing regular rest breaks in the proposed rule. The inclusion of Index Table 3 could be a useful tool to employers, non-managerial employees, and their representatives to determine appropriate rest break schedules. However, under current State and Federal Law, there is no requirement for rest or lunch breaks to be provided by the employer. Therefore, the listing of “Normal” for rest breaks for Light Work up to a Heat Index of 105 degrees Fahrenheit and for Moderate Work up to a Heat Index of 99 degrees Fahrenheit is confusing and does not create a rest break requirement when employees are working under these conditions. We support OHSB in requiring employers to provide employees with paid rest breaks, but feel this section needs to include further detailed requirements.

- a. Most importantly, it is imperative that a specific minimum break schedule be defined for all workplaces subject to the standard.
- b. USW recommends clarifying that periods during which employees are donning and doffing personal protective equipment and work clothing must not count towards the total time provided for rest breaks; and the time for employees to walk to and from the break area is not included in the time provided for rest breaks.

- c. Fatigue must be considered and included in a HIIPP, regardless of when an employee's last break occurred. Heat-related hazards contribute to and cause impairment in a worker's ability to safely and effectively perform their duties. It's vital for workers to receive adequate paid rest breaks and to rehydrate. Employee fatigue as a whole must also be accounted for in the final rule. This includes, but is not limited to, the number of hours employees work, rest times, and addressing the staffing levels that contribute to fatigue. This item must also be addressed by employers working with non-managerial employees and their representatives.
6. Cooling areas:

USW believes that the wording of bullet point "h." of this section is unnecessarily wordy leading it to be confusing. We recognize that many other proposed and promulgated state heat standards contain a similar statement of variance from the provision of shade. We recommend making this bullet point more concise and straightforward to read:

"h. Where the employer can demonstrate that it is infeasible or unsafe to provide access to adequate shade, employers may use other means to reduce body temperature if they can demonstrate such means are equally or more effective than shade".

7. Personnel Monitoring:

- a. USW is concerned by the inclusion of the option to "Require self-monitoring and communication with supervisors on symptoms of heat illness experienced" in this paragraph. This puts the responsibility of identifying heat related illness or injury symptoms on an individual, who may be experiencing confusion and an altered mental state as a symptom of heat exposure. This also allows employees to work alone without specific check-in and communication protocols that are important to the well-being of these individuals. We urge OHSB to remove this option, as "Regular communication with employees who are working alone by radio, cellular phone, or other reliable means of communication" is both more protective for employees and easily feasible for employers.
- b. Although we agree that personnel monitoring is needed by supervisors and workers to monitor themselves and their coworkers for physiological signs and symptoms of heat illness, and to be able to exercise the rights of the standard, we feel that this monitoring should also include exposure monitoring. Employers must monitor both environmental heat exposure and employee workloads to ensure that no worker is exposed to heat stress at or above the National Institute for Occupational Safety and Health (NIOSH) Recommended Alert Limits (RALs) and Recommended Exposure Limits (RELs).²

² [NIOSH](#), Criteria for a Recommended Standard: Occupational Exposure to Heat and Hot Environments, section 8.1, page 93

8. Heat illness and emergency response:

OHSB has mistakenly not included emergency response in the proposed rule and instead relied on existing state and federal regulations (29 CFR 1910.151-Medical Services and First Aid, 29 CFR 1926.50-Medical Services and First Aid, and 11.5.4.12 NMAC-Emergency Medical Care). The existing standards are outdated and fail to properly address heat injuries and illness as the signs and symptoms of heat illness can be easily misdiagnosed. Employers must include heat illness in their emergency planning and response plans. Most importantly, included in these plans should be procedures for responding to an employee experiencing signs and symptoms of heat-related illness, including heat emergency procedures for responding to an employee with suspected heat stroke as pointed out earlier in our comments.

9. Training

- a. OHSB has done well on addressing training in the proposed rule. However, the final rule needs to call for an instructor/trainer for employees to interact with who has the knowledge, skills, and abilities to teach the subject matter being presented as it relates to the workplace or site that the training will address. The training must also provide an opportunity for interactive questions and answers with the instructor/trainer as far too many workplaces rely on computer-based training.
- b. USW has reviewed multiple employers' training presentations. Some employers do reasonably well on educating employees on recognizing and reacting to heat-related illness. But, they consistently fail to educate workers on the hierarchy of controls. The final rule must call for training that explains the hierarchy of controls, use, and limitations of methods that will prevent or reduce exposure to heat, including appropriate engineering controls, administrative controls, and PPE.
- c. Many USW represented employers have heat-related awareness training curriculum. Some employers even have a HIIPP, but we were disappointed to find some major employers do not. Employers too often have a heavy focus on training and trying to fix workers' behaviors, rather than applying the hierarchy of controls. Employers' training materials and written programs tend to focus more on administrative controls, such as signage, awareness training and procedures, hydration (like watching your urine color), wearing PPE, and watching out for physiological signs and symptoms of exposure. The training materials and written programs also failed to include NIOSH's *Criteria for a Recommended Standard: Occupational Exposure to Hot Environments*.³ NIOSH sets Recommended Exposure Limits (REL) for acclimatized workers and Recommended Alert Limits (RAL) for unacclimated workers. These recommendations help provide limits of heat stress to reduce workers' risks of incurring heat-related illness.
- d. Training must cover employee rights and clarify that retaliation is prohibited under the final rule. Additionally, the employer shall not discharge or in any way discriminate against an employee or their representative for protected activity,

³ [Ibid.](#)

including: exercising rights under the standard for themselves or others, requesting information, raising a concern or suggestion, reporting an injury/illness, requesting medical attention, taking heat-related breaks, and stopping a heat-related job/task/process that is unsafe or unhealthy or as they experience signs of heat-related illness.

- e. We recognize that OHSB may require employers to collect employee signatures to verify that employees attended training, but it must also be understood that an employee's signature only verifies physical attendance and has nothing to do with the quality of the training provided by the employer. The USW has seen numerous disciplinary cases where employers have attempted to use a signature sheet against an employee in a disciplinary procedure. Those signatures did not demonstrate actual compliance, but only attendance because the employer's training was not adequate.
- f. Although the proposed rule addresses annual retraining, we believe the supplemental training requirements need to go further. When an employer has reason to believe that any employee who has already been trained does not have the understanding and skill required, the employer must provide supplemental training to each such employee. Circumstances where supplemental training would be required, include, but are not limited to: changes or modifications in the workplace (including work organizations factors), changing equipment, processes, procedures or institution of new tasks or procedures; job tasks performed render previous training obsolete; changes are made to the employer's program or plans; and inadequacies in an affected employee's knowledge or use of workplace procedures, practices, and control measures indicate that the employee has not retained the requisite understanding or skill. The additional training may be limited to addressing the items listed above or new exposures created.

10. Input and involvement of non-managerial employees and their representatives:

- a. The proposed rule ignores any requirements for input and involvement of non-managerial employees and their representatives. There must be a dedicated paragraph for employees and their representatives' participation, so they can be actively engaged in all elements of the standard. Several current health and safety standards include such a provision. OSHA's Process Safety Management of Highly Hazardous Chemicals Standard and the Permit-Required Confined Spaces are two examples of such. Furthermore, employees and their representatives must also be free to participate without fear of retaliation.
- b. Employers shall also make available to non-managerial employees and their representatives all information required to be developed and implemented under the final rule, including the HIIP and selection, use, fit, and comfort of Personal Protective Equipment (PPE).
- c. It is common at USW represented workplaces to have health and safety committees who work closely with our members and managerial counterparts to eliminate and reduce heat-related hazardous exposures. USW has some workplaces where there

is a safety subcommittee that works on heat stress prevention. These subcommittees strive to prevent heat-related injuries and illnesses by having extra workers assigned as heat relief when temperatures begin to get elevated. The health and safety committees conduct surveys to assess the employer's heat prevention measures and the effectiveness of the location's heat stress prevention plan. They update the heat stress catalog that's used to order cooling relief aids, and do a heat stress campaign annually.

- d. Employers that are implementing a HIIPP must be required to get input and involvement of non-managerial employees and their representatives regarding heat hazards experienced during work operations regularly.

11. Additional Items for Consideration:

- a. Many USW represented workplaces provide workers with cold water and electrolytes (including bottled), freeze pops, fruit, shade tents, fans, and other provisions in user-friendly locations all at no cost to employees. We support OHSB requiring employers to promote and support employees drinking water and electrolytes frequently. Some members even have their own company-supplied personal 10-inch battery powered fan for cooling purposes as well as overhead ceiling fans where applicable. We believe the final rule should call for coolers to be placed in strategic locations to provide water and electrolytes to employees.
- b. USW represented workplaces have engineering controls consisting of, but not limited to: air handling units that move outside air into buildings for cooling; roof vents and seasonal windows to assist in cooling the workplace; air-horns, portable fans and portable fans with 'mist'ers that provide better cooling features. Employers need to have an inspection and periodic maintenance program at the workplace to properly maintain equipment that helps eliminate or reduce heat-related hazards. At one USW represented workplace, the 'mister fans' did not have an inspection and maintenance program to clean and sanitize the fans. These poorly maintained fans led to Legionnaires' disease. The final rule must require employers to have a written inspection and periodic maintenance program for equipment that is intended to eliminate and reduce heat exposures in the workplace. USW has also found some workplaces where the heating, ventilation and air-conditioning (HVAC) system was set at its coldest setting, but the equipment failed to operate properly. Inspections and maintenance must also cover the HVAC systems. The final rule must require employers to maintain their HVAC system per the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standards.
- c. Air-conditioning for vehicles and industrialized mobile equipment: One of our local unions filed a grievance against the employer who decided to remove the air conditioner from a work truck used by our members who work entirely in an outdoor environment. Thanks to a strong local union's fight for health and safety, the air-conditioner was reinstalled. The standard needs to require and maintain air-conditioning for vehicles and mobile equipment to prevent heat-related injuries and illnesses. When vehicles and mobile equipment air-conditioning malfunctions, it

must be removed from service and not returned to service until the cause for such failure has been eliminated. Steelworkers have also seen where employers only fix the air-conditioning in ambulances if the medication on the unit requires it. Workers must be as important to the employer as the medications kept in the ambulance.

- d. Power companies are asking employers to turn off lights and other equipment during the peak summer months to significantly reduce the overall electricity demand during these peak usage periods. Our members tell us employers seldom curtail heavy operations, but they do turn off other power sources such as lights and air-conditioning. When employers are making decisions to limit electrical use in the workplace, they must not take power away from air-conditioning units where workers are exposed at or above the initial heat trigger.
- e. At one USW worksite, the employer and the USW have a heat stress program that provides the following; heat warning lights (like traffic signals with red, yellow and green) for heat covered areas. The green light means the heat stress program is not in effect. The yellow light means mandatory paid 15-minute breaks every hour, and four hours maximum of overtime. The red light means mandatory 30-minute breaks every hour, and two hours maximum overtime. Additionally, the workplace has a robust training curriculum with in-person training classes, “cool booths” located in strategic areas that are equipped with air conditioning and water dispensers year-round. The workplace also has a roofed break area to provide shade to workers who are outdoors with fans and coolers stocked with water and electrolytes. Signs have also been posted in specific areas of the bathroom with urine color charts as a reminder to hydrate. The proposed rule has captured some of the above items, but it could also add the remaining items to the final rule.

12. General items:

- a. Anti-retaliation provisions are needed to better protect employees and their representatives for their participation in the elements of this proposed and final rule. We strongly urge OSHB to not overlook inclusion of this element in the final rule. The final rule must clearly state that retaliation and discrimination are prohibited, and an employer shall not discharge, or in any way discriminate against, an employee or their representative, for protected activity, exercising rights under the standard for themselves or others, requesting information, raising a concern or suggestion, reporting an illness/requesting medical attention, taking breaks, and stopping a job/task/process that is unsafe or unhealthy or as they experience signs of heat-related illness. The final rule must make it clear that retaliations and discrimination are not tolerated. HIIPPs are most effective when workers and their representatives, as well as supervisors, are actively encouraged to report heat-related hazards, take cool down breaks, identify early warning signs, and implement interventions. Again, the final rule must specifically prohibit disincentivizing or punishing workers and supervisors for reporting signs and symptoms, taking breaks, and participating in this standard.
- b. Medical records must be kept confidential. OSHA’s 1910.1025, Lead and 1910.1026 Chromium (VI), are two good examples of such. The final rule must be

about preventing heat exposure through hazard identification, elimination, and exposure reduction. It's not about personal risk factors and a worker's medical records.

- c. To reiterate, USW recommends that OHSB use data from the National Weather Service and Wet Bulb Globe Temperature (WBGT) measurements. The Wet Bulb Globe Temperature (WBGT) measures heat stress in direct sunlight, which is based on temperature, humidity, wind speed, and solar radiation. The heat index is based only on temperature and humidity. The Heat index is most valuable when solar energy does not cause a heat load to the human body, and is mostly calculated for shady or indoor areas. Most workplaces have more complicated actual hazards and therefore need more precise measurement. For outdoor workers the WBGT is the best indicator to monitor activities in direct sunlight for heat stress. Examples of inside work where heat stress can be a concern are near furnaces such as steel, foundries, and other mills with primary furnaces or another heat source. Additionally, workload and clothing need to be evaluated. WBGT monitors have become more affordable and the costs will drop as each heat standard is implemented across the country.

Conclusion

Climate change has impacted outdoor and indoor workers with increases in heat waves and excessive temperatures. Even the cooler months have higher temperatures. Undoubtedly, OHSB's proposed rule on Heat Injury and Illness Prevention in Outdoor and Indoor Work Settings will protect workers who are required to work in hot conditions and prevent workplace illnesses, injuries, and deaths. USW supports OHSB's proposed rule and how it can be improved, for example by adding input and involvement of non-managerial employees and their representatives, as outlined in our comments. We cannot continue to rely on the general duty clause and voluntary compliance. USW supports this proposed rule that provides robust health and safety protections from heat-related hazards to both outdoor and indoor workers. USW thanks OHSB for acting on this proposed rule, soliciting and considering our comments, and we'll continue to be actively involved in the heat injury and illness prevention rulemaking process to ensure a comprehensive standard is developed and made law.

Sincerely,

/s/ Kayla Flowers

Health and Safety Specialist
United Steelworkers