

15, October 2021

Jay Withrow

Director, Division of Legal Support, ORA, OPPPI, and OWP
Virginia Department of Labor and Industry
600 E. Main Street, Suite 207
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Submitted via email to: jay.withrow@doli.virginia.gov and princy.doss@doli.virginia.gov

RE: Regulatory Advisory Panel Member Comments Regarding the Proposed Heat Illness Prevention Standards

Dear Mr. Withrow,

I would like to thank the Department of Labor and Industry and the Safety and Health Codes Board for the opportunity serve on the Regulatory Advisory Panel for the heat stress standards (16 VAC 25-210) and the opportunity to submit these comments.

According to the National Institute for Occupational Safety and Health (NIOSH), prolonged exposure to heat, even a few hours, can exacerbate chronic health conditions or cause exhaustion. Continued exposure can cause death if someone is not removed from heat and treated. Workers are at risk of heat stress in both outdoor work *and* indoor work, particularly when engaged in strenuous activities or where there is inadequate air conditioning¹. Climate change may well increase the severity of heat hazards to workers. The Union of Concerned Scientists projects that the Southwest region of the United States will experience at least a hundred deadly heat days annually by 2036². There is no comprehensive standard to protect workers against heat stress federally or in Virginia, making this proposed rulemaking especially important.

According to the Bureau of Labor Statistics³, heat-related occupational morbidity is on the rise in Virginia. It has risen 60% from 0.3 cases per 10,000 full time workers in 2011 to 0.5 in 2019 (Figure 1). Among public sector employees, whose only protection can come through a state standard because Federal OSHA lacks jurisdiction, rates have risen more dramatically. The increase is 275% from 0.4 cases per 10,000 full time workers in 2011 to 1.1 in 2019. (Figure 2).

¹ Jacklitsch B, Williams WJ, Musolin K, Coca A, Kim JH, and Turner N (2016). *Criteria for a Recommended Standard: Occupational Exposure to Heat and Hot Environments*. Washington DC: DHHS, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.

² Union of Concerned Scientists (2019). *Killer Heat in the United States: Climate Choices and the Future of Dangerously Hot Days*. <https://www.ucsusa.org/sites/default/files/attach/2019/07/killer-heat-analysis-full-report.pdf>

³ Bureau of Labor Statistics, *Survey of Occupational Injuries and Illnesses*. <https://www.bls.gov/iif/data.htm> (Data extracted 10/15/2021)

Figure 1: Heat-Related Injuries and Illnesses per 10 Thousand Full-Time VA Workers

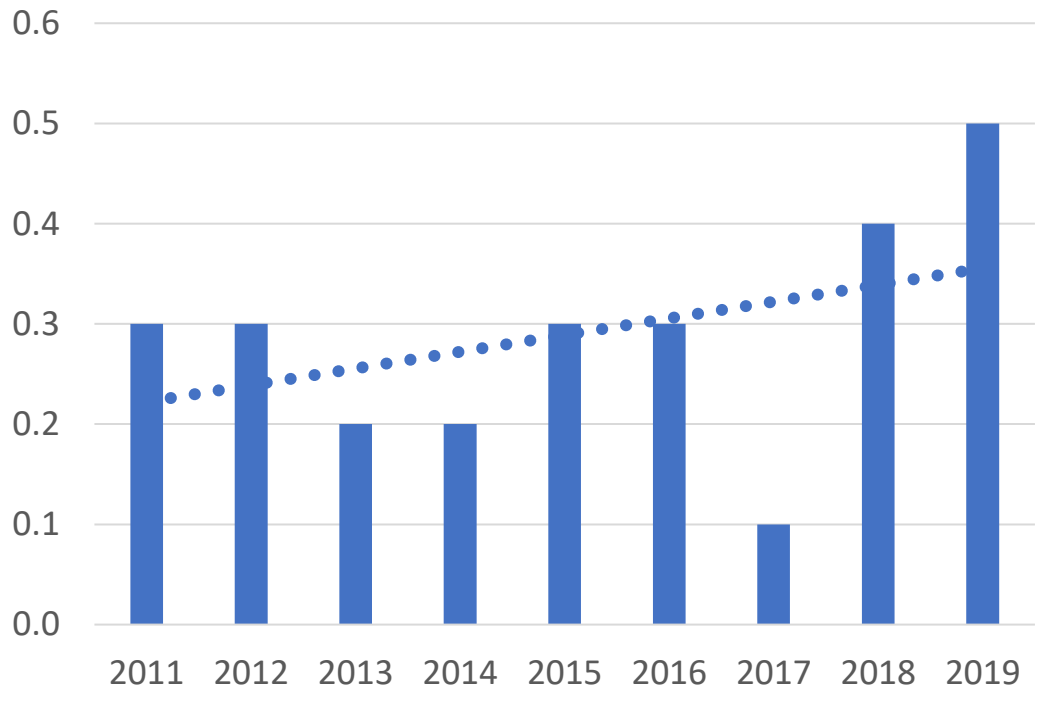
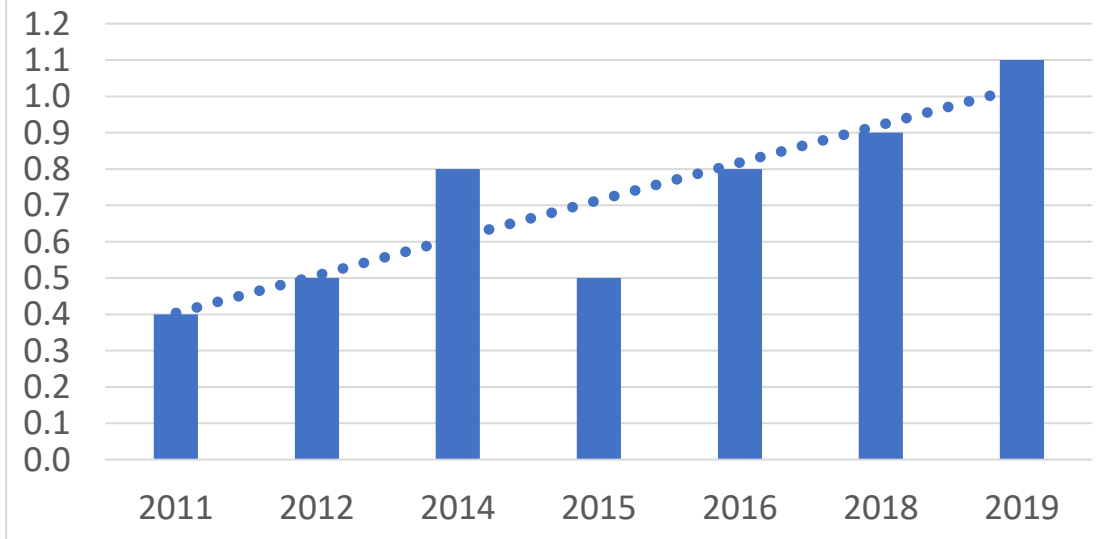


Figure 2: Heat-Related Injuries and Illnesses per 10 Thousand Full-Time Public Sector (state and local) VA Workers



Virginia Should Follow the Lead of States that Have Enacted Their Own Occupational Heat Standards

California⁴, Washington⁵, and Minnesota⁶ already have occupational heat standards. In 2020, Maryland enacted a law that requires Maryland Occupational Safety and Health to promulgate protections by October 2022.⁷ Earlier this year, Oregon enacted emergency temporary standards to protect against heat.⁸ The existence of a new the new federal interagency initiative to address the impacts of heat⁹ is not a reason for Virginia to abandon its own heat stress standard. As noted above, rates of heat-related morbidity are higher and rising faster among public sector employees in Virginia. Only the State of Virginia can protect these employees. Federal OSHA has no authority to do so. In addition, the fact that OSHA will be issue an Advance Notice of Proposed Rulemaking for heat stress¹⁰ does not guarantee that standards will ultimately be adopted. Even if they are, OSHA normally takes eight to ten years to complete rulemaking (and even under the best of circumstances, it takes more than four years).¹¹ By contrast, Virginia is now largely through its process and can have protections in place by next year.

The General Duty Clause Does not Offer Adequate Protection Against Heat

Without a heat-specific standard, workers can seek protection from occupational heat stress only through the general duty clause, which requires employers to “furnish to each of [their] employees safe employment and a place of employment that is free from recognized hazards that are causing or are likely to cause death or serious physical harm to [their] employees.”¹² Unfortunately, in 2020, the Occupational Safety and Health Review Commission in 2020 rejected Federal OSHA’s reliance on the general duty clause to cite the United States Postal Service for failure to provide sufficient protections against heat stress.^{13,14,15}

⁴ <https://www.dir.ca.gov/title8/3395.html>

⁵ <https://app.leg.wa.gov/WAC/default.aspx?cite=296-62&full=true#296-62-095>

⁶ <https://www.revisor.mn.gov/rules/5205.0110/>

⁷ Occupational Health and Safety, *Maryland Enacts AIHA-Support Bill Protecting Workers from Heat Stress* (May 18, 2020), <https://ohsonline.com/articles/2020/05/18/maryland-enacts-aihasupport-bill-protecting-workers-from-heat-stress.aspx> (last accessed June 2, 2021).

⁸ Andrew Selksy, *Oregon Adopts most protective heat rules for workers in US*, Associated Press (July 8, 2021), <https://apnews.com/article/business-science-health-government-and-politics-environment-and-nature-ecea3ed406610f352f5e3f64850b32f0> (last accessed October 14, 2021).

⁹ The White House, *FACT SHEET: Biden Administration Mobilizes to Protect Workers and Communities from Extreme Heat*, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/20/fact-sheet-biden-administration-mobilizes-to-protect-workers-and-communities-from-extreme-heat/> (last visited October 12, 2021).

¹⁰ *Id.*

¹¹ Rich Fairfax, *OSHA’S Rulemaking Process: Why Does It Take So Long?*, ORCHSE, <https://www.orchse-strategies.com/orchse-blog/oshas-rulemaking-process-why-does-it-take-so-long/#1550099583530-b09200f0-06e8> (last accessed October 12, 2021).

¹² Va. Code § 40.1-51.1(A); *see also* 29 U.S.C. § 654(a)(1).

¹³ Bruce Rolfsen, *Judge Rejects Five OSHA Heat Danger Cases Against Postal Service*, Bloomberg Law (July 20, 2020), <https://news.bloomberglaw.com/safety/judge-rejects-5-osha-heat-danger-cases-against-postal-service> (last accessed June 2, 2021).

¹⁴ USPS, slip op. at 65.

¹⁵ *Id.* at 70 (The judge also discussed how OSHA had an obligation to show economic feasibility, but OSHA produced no witnesses as to feasibility. By engaging in a rulemaking process to *create* standards, the Board will be able to ensure feasibility for the requirements under the new standard.)

Comments on Specific Provisions of the Standard

- 80° is the appropriate Heat Index (HI) trigger for the written plan, training, provision of water, rest breaks and shade. At this trigger level, there should be a minimum of one 10-minute rest break every 2 hours.
- A 90° Heat Index should trigger for high heat precautions including more breaks, and closer supervision from management and a “buddy.” At this level, there should be a minimum of one 15-minute rest break every hour.
- The standard should account for radiant heat, heavy workload and protective or otherwise hot clothing. This could be done by using the presence of these factors at specific levels and/or in specific combinations to trigger high heat protections even when the HI does not exceed 90°.
- There should be an extreme heat category, triggered by an HI above 100° or an HI above 90° with radiant heat, heavy workload and/or hot clothing. Extreme heat category would require additional rest breaks in a cool shady area and additional monitoring and precautions. Work may have stop entirely when the HI becomes too extreme.
- The standard must address acclimatization. Acclimatization schedules, such as those used in the military, should be included.
- In addition to providing water, electrolytes should also be required.
- Non-English speakers need to receive training in a language they understand. Signs should be multilingual, and it should be readily apparent who on the site speaks more than one language and what those languages are so non-English speakers can get help quickly and communicate effectively if there is a problem.
- Whistleblower provisions are essential. Supervisors need to encourage workers to stop work if they experience any symptoms and seek help for co-workers who are experiencing symptoms. There should be no hint of retaliation for doing so. Taking precautions should be rewarded.
- Apply the industrial hygiene hierarchy of controls. The following example of the hierarchy as applied to heat stress comes from SafeWork New South Wales in Australia¹⁶

Eliminate the hazard

Consider whether the work can be done at an alternate time or place to remove the work away from the risk.

¹⁶ <https://www.safework.nsw.gov.au/hazards-a-z/working-in-extreme-heat/content-page-blocks/managing-extreme-heat-at-your-workplace>

Designing better work systems and workplaces

To eliminate risks of exposure to extreme heat when designing a new indoor workplace:

- ensure construction materials used for walls and roofs reduce or eliminates heat build-up inside the workplace.
- incorporate good air flow for all work areas. consider potential for air flow within a workplace to be blocked or obstructed (e.g., from deliveries received, delivery vehicles, etc.)
- select and position heat generating equipment to reduce or eliminate heat build-up inside the workplace
- consider the velocity and direction of hot air (natural and artificial), including air movement from any heat generating equipment

Isolate the hazard

Examples:

- Isolate workers in air-conditioned control rooms away from the hot work environment where applicable
- Enclose or insulate equipment
- Isolate hot processes and/or heat-producing equipment.
- Install shields, barriers or guards to limit exposure to radiant heat
- Insulate buildings and clad sources of radiant heat
- Where possible, relocate workstations away from hot areas

Engineering controls

Examples:

- Provide air-conditioning. Ensure adequate airflow so that the air flow reaches all areas in the workplace. Perform preventive maintenance on air conditioning
- Install local mechanical exhaust ventilation to increase air movement and remove hot or heated air/ steam from hot plant, processes and areas where heat can build up or where there is little air movement
- Install reflective or light-colored external wall cladding and roofing to the building
- place reflective shields or coatings on radiant heat spots
- provide mechanical equipment to reduce the need for strenuous physical work
- provide screens, umbrellas, canopies or awnings over sections of the site to create shade where work is being carried out
- provide suitable communication systems that function in black spots, and remote and isolated areas (e.g., mobile telephone, satellite phone, personal duress alarm, emergency beacon)

- provide suitable technology and other tools to help overcome the hazards faced by isolated and/or solitary workers.

Administrative controls

Administrative controls should only be used to provide a systematic framework to support the higher controls that you have implemented.

Administrative actions include:

- Monitor environmental conditions
- Provide easy access to cool drinking water and encourage workers to drink often
- Provide regular and frequent breaks away from hot work areas and processes in air-conditioned or cool, well-ventilated areas
- Ensure the first aid room is air-conditioned, where relevant
- Implement an effective ‘buddy system’ where workers check each other frequently
- Organize work to minimize physically demanding tasks
- Ensure the work is paced to meet the conditions
- Ensure workers are acclimatized.
- Reduce the length of shifts

Information and training for workers

Suitable information and training must be provided to all workers – regardless of whether they are full time, part-time, casual workers, shift workers, labor-hire workers, or contractors. Ensure the information and training is understood by all workers – including those from culturally and linguistically diverse (CALD) backgrounds.

Personal protective equipment (PPE)

PPE is the last and least effective control in the hierarchy and should only be used to manage any risk that is leftover after all higher-level controls have been implemented, so far as is reasonably practicable.

Thank you for the opportunity to submit comments. Please do not hesitate to contact me at dsivin@gmail.com

Sincerely,

A handwritten signature in blue ink, appearing to read 'Darius D. Sivin', with a long horizontal flourish extending to the right.

Darius D. Sivin, PhD