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VIA ELECTRONIC SUBMISSION

Hon. Douglas L. Parker
Assistant Secretary of Labor for Occupational Safety and Health
U.S. Occupational Safety and Health Administration
200 Constitution Ave. NW
Washington, D.C. 20010

RE: Heat Injury and Illness Prevention in Outdoor and Indoor Work Settings (Docket No. OSHA-2021-0009)

Dear Assistant Secretary Parker:

The American Road & Transportation Builders Association (ARTBA), representing over 8,000 members in the transportation construction industry, respectfully submits comments on the Occupational Safety and Health Administration's (OSHA) proposed heat safety standard for indoor and outdoor workplaces. Workplace safety – including protecting workers from heat-related illness – remains a core value of the industry we represent. However, the proposed rule is both infeasible and administratively burdensome. The proposal does not adequately distinguish between industries and their distinct work conditions, nor does it account for significant, existing efforts of employers to prevent heat stress. We urge OSHA to revise the proposal to allow greater employer flexibility. Specific comments follow below.

Background

ARTBA represents public and private sector entities of all sizes within the transportation construction industry, including contractors, materials suppliers, planning and design firms, state and local transportation agencies, and safety and equipment manufacturers. They plan, design, build and maintain the nation's highways, bridges, transit and rail lines, airports, and other critical infrastructure. Our members work to deliver projects safely, efficiently, and cost-effectively. The Infrastructure Investment & Jobs Act has significantly increased federal-aid funding for this purpose, which in turn has increased the number of industry work sites nationwide.

Heat is a well-known hazard in the transportation construction industry. Our members have long implemented effective countermeasures such as providing shade, breaks, hydration, and acclimatization protocols to protect workers from heat-related illnesses. They are also

innovating with new personal protective equipment (PPE) technologies, which enhance worker safety relating to weather as well as other potential hazards. Our members undertook these practices without regulatory mandates.

ARTBA's Comments on the Proposed Rule

1. OSHA has not demonstrated a necessity for such a broad-sweeping rule.

Under the Occupational Safety and Health Act[1], OSHA may set safety standards only when necessary to address significant workplace risks. The agency must provide evidence of substantial hazards to justify regulatory action. However, OSHA has not shown a specific need for this rule within the transportation construction industry. The data cited fails to analyze heat-related injuries and illnesses by industry despite the fact that OSHA has industry-specific data that demonstrates the flaw in its one-size-fits-all mandates.

Bureau of Labor Statistics data indicates that between 2011 and 2022 (the most recent year available), there were only three recorded heat-related deaths among highway, street, and bridge workers, all occurring in the same year. While any worker illness or fatality is unacceptable, this data shows heat to be a relatively rare cause of harm in the industry ARTBA represents. Without clear, industry-specific evidence of harm, the proposed rule places unnecessary burdens on employers without delivering meaningful safety improvements.

Year	Number of Workers (Thousands)	Fatal Injuries			Nonfatal Injuries and Illnesses (Rate per 100 Full-Time Workers)		
		Total	Exposure to Harmful Substances or Environments		Total Recordable Cases	Cases with Days Away from Work	
			Total	Environ-mental Heat		Total	Exposure to Harmful Substances or Environments
2011	286	66	3	--		1.6	0.11
2012	294	86	4	--		1.3	0.05
2013	293	66	3	--		1.5	0.05
2014	294	63	--	--	3.8	1.2	0.07
2015	310	66	5	3	3.6	1.1	0.05
2016	319	69	3	--	3.5	1.4	0.10
2017	328	68	3	--	3.2	1.1	0.06
2018	341	73	4	--	3.6	1.2	0.11
2019	349	68	--	--	3.4	1.2	0.06
2020	346	87	--	--	2.7	0.9	0.05
2021	342	52	3	--	3.0	1.2	0.05
2022	351	56	--	--	2.7	1.0	0.05
Average	**321**	**68**	**4**	**3**	**3.3**	**1.2**	**0.07**

Sources: BLS Census of Fatal Occupational Injuries; BLS Survey of Occupational Injuries and Illnesses; BLS Current Employment Statistics. NAICS 2373 - Highway, Street, and Bridge Workers

Note: Dashes indicate no data reported or data that do not meet publication criteria.

[1] 29 U.S.C. §655.

2. Safety standards issued by the agency must balance feasibility with practical implementation.

Safety standards established by OSHA must be both technologically and economically feasible, as required by the OSH Act. [2] This proposal fails to meet either criterion. ARTBA members have expressed significant concerns about the associated costs and operational challenges, including reduced production, the need for additional hires, and extended project timelines. Many disadvantaged business enterprises (DBEs) and other small businesses, in particular, would have to incur substantial new expenses to adapt practices – such as training, recordkeeping, and employee rotation – complying with scheduled break requirements.

OSHA's proposal would require breaks every two hours. This mandate would proves particularly impractical for the transportation construction industry without demonstrably enhancing worker safety. For example, asphalt must be placed while hot, and concrete hardens quickly, requiring continuous work to meet quality standards. Roadway contracts often prohibit "cold seams" in asphalt and unreinforced seams in concrete, making rigid, prescriptive breaks unworkable. Breaks should instead be flexible and provided "as needed," tailored to specific operations and employees. While ARTBA supports appropriate breaks, a rigid mandate presents significant challenges, especially for small businesses with limited crews. Required breaks could also extend traffic disruptions, increasing safety risks from frustrated motorists who may throw objects, drive through active work zones, or bypass traffic controls, and in so doing, endanger workers.

Crews working in high-risk areas like intersections and interstate ramps face even greater dangers. Requiring them to stop tasks and relocate to cooling locations, such as vehicles or tents, adds risks and imposes substantial costs to establish safe ingress and egress routes. These hazards outweigh the minimal heat-related risks reported in this industry. Data shows few heat-related deaths in highway, road, and bridge construction annually, compared to 50-60 workers killed each year in vehicle "struck-by" incidents. The proposed rule could inadvertently worsen these risks.

Additionally, the rule may push projects to nighttime hours to avoid heat, introducing new hazards. Night work carries greater risks due to low visibility and increased incidents of drowsy, impaired, or distracted drivers. Fatigue from night shifts further compromises worker safety and health, raising serious concerns about the unintended consequences of this rule.

Ambiguity also remains regarding whether workers handling hazardous materials, such as during sandblasting or asbestos and other hazardous material removal, would be required to decontaminate, take a scheduled break, and then reapply all of their hazmat gear. This process

[2] 29 U.S.C. § 655(b)(5)).

could significantly extend work hours, necessitating complete revisions to project timelines and budgets. Moreover, repeatedly removing, and reapplying hazmat gear could exacerbate heat exposure issues for workers, potentially causing greater harm than allowing them to complete their tasks before taking a break. All these issues underscore the infeasibility of the proposed rule and its failure to meet OSHA's requirement for standards that are both practical and achievable.

3. OSHA should establish regional heat triggers that account for variation in geography and climate.

A one-size-fits-all approach to heat triggers fails to account for regional variability and practical challenges. OSHA's proposed nationwide heat triggers, set at a heat index of 80°F and a high heat trigger at 90°F, are impractical in regions with warm weather most of the year. In such areas, these triggers could apply on over 200 days annually, including extended periods under high heat conditions, creating an undue burden on employers. Natural acclimatization also varies significantly by region. For example, 80°F feels temperate to workers in Arizona or Florida. ARTBA questions whether OSHA's thresholds are actually based on sufficient data or expert consensus, as no studies that look at regional heat averages and effects are cited. To address these concerns, ARTBA strongly recommends scientifically based, region-specific heat trigger standards, a solution previously requested during the Small Business Regulatory Enforcement Fairness Act (SBREFA) panel proceedings and in follow-up comments.

4. OSHA's proposed control measures are impractical and require greater flexibility.

    a. Shade

The proposed shade requirements are unworkable for many transportation construction projects, particularly for moving operations within the right-of-way of public roads. Additionally, the rule includes ambiguous language, such as "as frequently as possible" and "as close to the worksite," which leaves critical elements open to interpretation and increases uncertainty of compliance. This raises questions about whether enough structures are needed to provide shade for the entire crew at the same time, or if the structures are meant to accommodate rotating break schedules. Further, the rule states that it prohibits the use of equipment for shade but does not specify whether a worker in an air-conditioned shaded cab must still vacate it for required breaks. Similarly, it is unclear whether umbrellas or cover-mounted equipment count as shaded structures.

Conditions on jobsites can vary significantly, even within the same area. Some may be entirely shaded, others completely unshaded, and many a mix of both. Additionally, many state Departments of Transportation (DOTs) prohibit the placement of temporary structures alongside highways due to motorist safety concerns, as these structures are not crash-tested. The proposed rule also overlooks the challenges of projects requiring work at heights, such as on bridge piers, where providing shade structures is impractical or impossible. In such cases,

requiring workers to descend from heights to take a break may be more physically taxing than allowing them to complete their tasks before resting.

Flexibility is therefore essential, including the ability to use available structures, such as equipment, to provide shade. The transportation construction industry is experienced in implementing safety procedures, including lock-out/tag-out protocols, to ensure the safe use of equipment for this purpose. Equipment should also be permitted for air conditioning and cooling, if safety measures, like stopping and locking the equipment, are in place. Additionally, moving operations, or requiring workers to walk significant distances to break areas, can be inefficient and physically taxing, exacerbating the very hazard that OSHA is attempting to regulate, and further complicating compliance with the proposed requirements.

b. Acclimatization

The proposed acclimatization requirements raise significant questions that need clarification to ensure practical implementation. First, it is unclear whether non-working exposure to the same or similar environmental conditions triggers acclimatization requirements, which could create confusion for employers. Additionally, guidance is needed to address how acclimatization should be maintained during periods of fluctuating temperatures, such as when weekly highs alternate between 70 and 80 degrees, or when there is a heat wave—both common occurrences. As written, the rule seems to suggest that acclimatization would reset every time temperatures change, potentially requiring prolonged periods to re-establish proper conditions. Furthermore, the rule does not specify whether gradual temperature increases, such as rising from 70 to 80 degrees over several days, contributes to the proposed acclimatization protocols. For instance, if a worker labors for a week in temperatures in the 70s, it is unclear whether this period counts toward acclimatization when the temperature ultimately exceeds 80 degrees. Without clarity on these points, the rule may impose unnecessary complexities and delays in compliance. ARTBA members have also expressed concern about the practicalities of implementing these requirements, particularly if determining workloads or acclimatization protocols requires the involvement of occupational health specialists or adherence to percentage-based workload adjustments, which may be impossible to calculate or enforce on dynamic jobsites.

5. <u>The proposed rule lacks clarity and practicality in key areas.</u>

The proposed rule introduces several requirements and considerations that lack sufficient clarity, creating significant challenges for employers. From documentation burdens to emergency response definitions and accommodations for existing health conditions, the rule fails to provide the necessary guidance and flexibility to address the diverse realities of workplace operations effectively. These gaps highlight the need for targeted adjustments to ensure the rule is both clear and feasible for implementation across industries. More specific examples are below.

a. Documentation

Even without explicitly mandating certain recordkeeping requirements, the proposal imposes a significant documentation burden on employers. To demonstrate compliance, and for liability purposes, employers will need to maintain evidence that breaks and water were provided to workers, effectively requiring detailed administrative tracking. This adds to the already extensive recordkeeping requirements imposed upon employers, including those related to training.

The requirement for designated heat safety coordinators also raises additional administrative and financial burdens, as ARTBA members have indicated that this would require them to hire extra full-time staff to monitor compliance with these protocols. The cumulative effect of these obligations creates new administrative challenges, particularly for small businesses that may lack the resources to manage extensive documentation while also ensuring operational efficiency.

b. Written Heat Safety Plans

OSHA's proposed requirement for written heat safety plans raises uncertainty and imposes logistical burdens, particularly for companies operating multiple jobsites. It is unclear whether employers must develop a separate, site-specific plan for each jobsite, or if a single, company-wide plan would suffice. For companies managing extensive operations—such as those with 50 crews working across 50 different sites—the expectation of site-specific customization creates confusion and could result in an unmanageable situation. Employers are left questioning where the line is drawn in terms of tailoring plans to individual sites and how detailed these plans must be. Furthermore, the rule does not specify whether written plans must be physically distributed on paper or if electronic dissemination is acceptable. Compounding this uncertainty is the requirement for heat safety training, which may need to align with site-specific conditions. ARTBA urges OSHA to provide clear guidance on these issues to ensure that written heat safety plans are practical, enforceable, and adaptable to diverse operations without imposing undue burdens on employers.

c. Emergency Response Exemption

ARTBA recommends an expanded definition of "emergency response" to encompass a broader range of industries and job types critical to addressing urgent situations. Recent events underscore the need for round-the-clock operations to ensure public safety and timely reopening of infrastructure. For instance, substantial (and successful) emergency road and bridge repairs took place on the hurricane-damaged Sanibel Causeway in Florida (September 2022), I-95 crash and fire in Philadelphia (June 2023), and I-10 fire in Los Angeles (November 2023). Note that all these incidents (and their repairs) took place during periods in which the temperature could exceed OSHA's heat triggers, whether because of the time of year or region

in which it took place. To restore these essential assets, emergency response teams, including transportation construction workers, worked extended hours under challenging conditions.

Additionally, severe natural weather events, such as storms and hurricanes Debby, Helene, and Milton in 2024, caused widespread destruction across the Southeastern United States, necessitating immediate repair of roadway and transportation infrastructure. Such events demand flexibility in emergency response to address localized hazards quickly, including hazardous debris removal, erosion control, and structural repairs. In many of these instances time is of the essence, and crews rotate and work round-the-clock. These operations are critical for community safety and recovery. Expanding the definition of emergency response is essential to reflect the realities of these necessary operations. ARTBA members have long navigated weather-related hazards while prioritizing expedited project delivery in such emergency situations.

d. Existing Health Conditions

The rule as proposed fails to account for existing health conditions that may exacerbate an employee's reaction to high temperatures. Many medical conditions and/or medications can affect heat tolerance and significantly increase the risk of heat-related illnesses. Employers often maintain limited knowledge of their employees' medical histories due to privacy regulations, making it difficult to tailor heat safety measures effectively. While they can make post-offer inquiries, employers are limited in what they can do once receiving this information from the employee. Oftentimes employers find out information about their employees only after incidents occur. Without clear guidance on how to address these individual vulnerabilities, the rule places an unrealistic burden on employers to predict and prevent adverse health outcomes. Additionally, requiring employers to make accommodations based on unknown or undisclosed conditions could lead to unintended legal and operational challenges.

e. Indoor vs. Outdoor Settings

OSHA's proposed heat standards overlook the complexities of work that may include both outside and inside work simultaneously. For example, how should an employer comply with this standard when working in tunnels, manholes, etc., where workers frequently transition between indoor and outdoor environments? ARTBA members often perform tasks in tunnels or other enclosed spaces with limited ventilation, then move to outdoor areas exposed to direct sunlight and varying weather conditions. The proposed rule does not adequately address how employers should manage these transitions, particularly when indoor and outdoor heat triggers, acclimatization protocols, and break requirements differ. For example, workers exiting a tunnel may face sudden exposure to higher temperatures or direct sunlight, but the standard offers no guidance on how to account for these shifts in environmental conditions. Additionally, it is unclear whether OSHA's confined spaces standards[3], which govern manholes and similar enclosed spaces, apply in conjunction with the proposed heat rules. ARTBA encourages OSHA to

[3] *See* 29 C.F.R. § 1926.1202

clarify these points and consider industry-specific, flexible solutions that reflect the realities of mixed indoor/outdoor work environments and similar situations.

6. OSHA should adopt an industry-specific standard that is performance and/or outcome based.

There is a long-standing practice within OSHA to create "vertical" standards tailored to the specific and unique needs of individual industries. OSHA's construction industry standards are designed to address the distinct risks associated with this sector. By the same logic, any heat injury and illness standard should follow a similarly tailored approach. Outdoor work presents unique challenges, including hazardous environments involving construction equipment and materials. These conditions are further complicated by moving operations with time-sensitive materials and proximity to the public and high-speed traffic. Such factors require a standard specifically designed to address these complexities.

OSHA's proposal attempts to regulate all covered workers with a single standard and has serious potential to create more hazards than it proports to resolve. The transportation construction industry requires a standard designed to account for its unique conditions and challenges, and that offers maximum flexibility to employers.

Most roadway and transportation construction companies and agencies have been successfully tailoring their work to ensure the safety and health of their workers for many years. Some have adopted procedures that consider the unique needs of this industry. For example, a Wisconsin-based contractor – in consultation with expert professionals – has devised a protocol through which it works at a faster pace and for longer periods than would be allowed by the proposed OSHA mandates but shuts down operations when temperatures exceed 93 degrees. They have found a way – specific to their projects, construction disciplines and climate – to protect their team members while meeting critical project timelines. Such an innovative plan would not be feasible under the proposed OSHA standard.

ARTBA therefore strongly recommends that OSHA rescind this rule as proposed and instead work with various sectors on the development of industry-specific performance-based rulemaking that emphasizes flexibility. Similar to OSHA's approach to PPE, this could include hazard assessments and tailored measures that address unique risks while providing maximum flexibility.

Conclusion

In conclusion, while ARTBA fully supports protecting workers from heat-related illnesses, the proposed rule's rigid and prescriptive requirements are impractical and unsuited to the realities of the transportation construction industry.

Furthermore, the rule does not comply with the Occupational Safety and Health Act's requirements for standards to be both technologically and economically feasible, nor does it

demonstrate a significant risk to workers within our sector as required by law. The data fails to substantiate the need for such a sweeping regulation.

We strongly urge OSHA to address the concerns outlined in these comments and collaborate with stakeholders to develop a practical, industry-specific standard that ensures worker safety while recognizing the operational demands of transportation construction. ARTBA stands ready to assist in revising the proposal to achieve these objectives. For any questions or additional information, please contact Brad Sant at bsant@artba.org or Prianka Sharma at psharma@artba.org.

Sincerely,

David Bauer
President and CEO
American Road and Transportation Builders Association