

Transcript of Day 12

Wednesday, July 2, 2025

OSHA Heat Injury and Illness Prevention Hearing

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5	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)		
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9	OSHA'S INFORMAL RULEMAKING HEARING		
10	FOR HEAT INJURY AND ILLNESS PREVENTION IN OUTDOOR AND		
11	INDOOR WORK SETTINGS		
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13	Day 12 of 12		
14	Wednesday, July 2, 2025		
15	9:30 a.m.		
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1	PARTICIPANTS
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3	PRESIDING:
4	PAMELA KULTGEN, Administrative Law Judge,
5	Office of Administrative Law Judges, United States
6	Department of Labor
7	
8	OSHA PANEL:
9	ANDREW LEVINSON
10	STEPHEN SCHAYER
11	DEIRDRE GREEN
12	BRENDA FINTER
13	ZOE PETROPOULOS
14	ADRIANA LOPEZ-MENENDEZ
15	PATRICIA DOWNS
16	
17	OFFICE OF THE SOLICITOR OF LABOR:
18	LINDA WILES
19	SHEILA NAUGHTON
20	
21	
22	

1	PARTICIPANTS, IN ORDER OF TESTIMONY:	
2	CERES, INC.	
3	Richard Juang	10
4	STUDENTS FOR SCIENCE	
5	Sarah Wilme	18
6	WISCONSIN COMMUNITY HEALTH ACTION	
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21	ALSO PRESENT:	
22	MARIAM CARLON, ABT Global	



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hearing will come to order. This is the final day of an informal public hearing on the Occupational Safety and Health Administration's proposed rule for heat illness and injury prevention in outdoor and indoor work settings. The Notice of Proposed Rulemaking was published to the Federal Register on August 30th, 2024, in volume 89 of the Federal Register, beginning at 70698. I am Pamela Kultgen, Administrative Law Judge for the US Department of Labor, and I will be presiding over this hearing today.

The purpose of this hearing is to receive testimony, from interested parties -- oral testimony, as well as other information pertinent to the proposed rule. After this hearing and the post-hearing comment period have closed, OSHA will review the entire record in determining the content of the final rule.

My role as presiding judge will be limited to conducting this hearing to assure that a complete and accurate record is made, and that all interested parties receive a fair hearing and have an opportunity

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to submit their information. The hearing schedule and
OSHA procedures governing this hearing are available on
the website for this hearing, which is at
https://www.osha.gov/heat-exposure/rulemaking. These
documents were sent to people and organizations who
filed a timely notice of intention to appear at this
hearing.

A few words here about the nature of the hearing.

Despite the informal nature of the hearing, we are governed by rules, both OSHA rules governing hearings at 29 CFR part 1911 and the hearing procedures issued specific to this rulemaking. These rules are meant to ensure that everyone has a fair opportunity to speak and express an opportunity about the proposed rule. To that end, they also allow me to hold witnesses to their allotted times, limit undue repetition or excessive argument, and generally keep the hearing on schedule.

Any written comments you have submitted to the docket are already part of the record of this rulemaking. In the rare case where witnesses wish to provide any other documents that have not already been entered in the docket, they should provide them by

email to OSHAEvents_dsg@dol.gov before the witness
begins their testimony so that they can be entered as
exhibits in the record.

part of the record, your oral testimony should concentrate on presenting the highlights of your written comments or clarifying your written submission. Hearing participants may also submit additional evidence or statements for a period of 90 days after the end of the hearing, which would be September 30th, 2025. At that point, the record for this rulemaking will close.

Today, after each speaker or panel of speakers completes giving testimony, OSHA representatives will have an opportunity to ask questions of the speaker or panel. When OSHA has finished asking questions, there will be an opportunity, as time permits, for persons who filed a timely notice of intention to appear to question the witness or panel. Participants may only direct questions to witnesses with whom they have no organizational affiliation.

This is the process I intend to follow. After

OSHA has finished asking questions of a witness or panel, I will ask participants who wish to ask questions of the witness to identify themselves by the raise hand button in Webex, or by pressing star three on their phones for those who have called in. Based on the hearing schedule and the number of participants who wish to ask questions, I will determine the order in which participants will question the particular witness or panel and any time restrictions on that questioning.

If there are more questions than we have time for today, it may be possible to ask additional questions after the conclusion of the final witness's testimony. Further, if witnesses are unable to answer a question during today's hearing, or would like to expand on the answers provided, they are welcome to use the posthearing comment period to submit such information.

I would also like to remind you that this proceeding is being recorded and transcribed by a court reporter. To ensure the reporter is able to provide an accurate record of all of the testimony, questions, and responses, please try to remember to provide verbal responses to all questions. Do not just nod. The

court reporter may have a hard time seeing if you only nod or shake your head in response to a question.

In addition, please remember to identify yourself before beginning your testimony and before asking or answering a question. I do -- and don't worry. I know many participants are not accustomed to doing these things, and I will provide reminders of these things as we go along. The transcript of the hearing will be uploaded to the hearing docket on regulations.gov, approximately two weeks following this hearing.

Now, unless there are any further announcements or other housekeeping matters -- and I'm not seeing anyone pipe in with them -- I believe that we can proceed with the public testimony. The expected speaking order is being currently displayed on the screen. Our contractor will introduce each speaker in turn and promote them to be panelists. When you are called to testify, please state your name and affiliation for the record and speak slowly and clearly so our court reporter can record these proceedings accurately.

MS. CARLON: Thank you, Judge. Our first speaker is Richard Juang. Please state your name and

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affiliation for the record.

2 MR. JUANG: Thank you. My name is Richard Juang. I serve as Senior Manager for Environmental Justice 3 4 Policy at Ceres. Honorable members of the panel, Your 5 Honor, thank you for the opportunity to speak briefly 6 in support of the proposed heat rule. Ceres, I should 7 say, is a nonprofit advocacy organization working with some of the largest businesses and institutional 8 9 investors across the country to build a cleaner, more

just, and more resilient economy.

We support this rulemaking. We regard it as an opportunity to provide regulatory clarity for firms in both state and multi-state contexts, and to assure American investors that the risks and hazards that come with extreme heat conditions are being adequately managed in public policy. Notably, institutional investors have already begun to ask companies in high-risk sectors to disclose their risk assessment and mitigation strategies regarding -- related to heat stress.

We do not regard this rulemaking as an adversarial process. We see it as an opportunity to create a

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1 positive working relationship between public policy and 2 ongoing private sector efforts to protect workers from dangerous temperatures exacerbated by climate change. 3 4 As a practical matter, many companies are already 5 developing climate transition action plans, CTAPs. 6 These are enterprise level strategies intended to 7 operationally respond to climate change and include protecting workers. 8

In turn, the development of a federal heat rule is a welcome opportunity to harmonize federal regulations with the planning and practices of America's most forward-looking companies. We do not regard the proposed rule as impractical. The benefits of thoughtful adaptation to climate change significantly outweigh the costs, particularly when the failure to adapt in the present simply pushes greater costs into the very near future.

In that vein, I'm here to briefly supplement our written comments by highlighting an economic dimension that supports the promulgation of this rule, and which we did not make sufficiently explicit in our initial comments -- the growing problem of unmanaged and

1 amplified risk arising from extreme heat exposure. Researchers from the Workers' Compensation Research 2 3 Institute have observed that, compared with days with 4 maximum temperatures of 75 to 80 degrees Fahrenheit, 5 the number of heat-related illnesses was 7 times 6 greater on days with high temperatures of 90 to 95 7 Fahrenheit, 11 times higher on days reaching 90 -- 95 to 100 Fahrenheit, and 18 times greater when high --8 9 when the high temperature exceeded 100 degrees 10 Fahrenheit. 11 Notably, and perhaps counterintuitively, it was 12 younger workers under the age of 35 and workers new to 13 their jobs who reported the highest rates of heat-14 related illness. This suggests, perhaps a lack of 15 preparedness in both demographics to simply self-manage 16 heat stress. It further indicates a need to provide 17 greater clarity with regards to heat protection for up 18 and coming workforce. 19 In 2023, the risk advisory firm, Marsh, observed 20 similarly that in their own analyses, heat-related

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workers' compensation claims have increased

significantly over the last ten years.

In particular,

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they observed the southwestern United States has seen
the incidence of heat-related claims double during this
period.

Marsh went on to make three observations. the upward trajectory is anticipated to persist, propelled by the continuous increase of global temperatures. Second, extreme heat is a leading indicator for other type of workplace claims as workers are exposed to -- are exposed to extreme heat, their cognitive abilities and physical well-being can be compromised, leading to an increased likelihood of accidents and errors that can result in additional compensation claims. And finally, of specific relevance to these proceedings, they observed that the absence of dedicated regulations leaves workers vulnerable to heat-related heat risks, ranging from heat exhaustion to potentially fatal heat strokes.

In turn, and consequently, Ceres sees this rulemaking as an opportunity to set out a national framework that supports more effective risk mitigation and risk management. I want to stress here that the likely consequence of inaction is not a continuation of

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the status quo. More likely, we will see an

accelerated rise in insurance costs and the risk of

growing uninsurablity in regions of the country that

will face dangerously high temperatures.

The Swiss Reinsurance Institute observes that,

quote, "extreme heat poses a growing threat to the insurance industry, with property, specialty, and life and health businesses most exposed". In life and health, they go on to observe, heat-related health impacts can increase medical life and worker's compensation claims, particularly among vulnerable and outdoor working populations. Extreme heat can put additional stress on healthcare systems. Liability exposures may also rise as employers and institutions face legal risks for failing to mitigate heat-related harms. This we regard -- and this we regard as a warning that must be heeded.

We have already seen, nationally, that a failure to address catastrophic or widespread harms in a specific sector can lead to insurance gaps, unrecoverable costs, and ultimately uninsurablity.

So to close, we wish to simply state that, in our

1	view, the proposed rule supports more effective risk
2	mitigation and risk management for American businesses,
3	for American workers, and for the financial and
4	healthcare infrastructure that serves both. This is a
5	moment where good public policy and forward-looking
6	business practices can, in fact, work together in
7	building a more resilient economy and creating a better
8	protected workforce. Thank you.
9	JUDGE KULTGEN: Thank you. Do we have any
10	questions from the OSHA panel?
11	MR. SCHAYER: Yes, Your Honor. Good morning. My
12	name is Stephen Schayer from the OSHA Directorate of
13	Standards and Guidance. Thank you, sir, for your
14	testimony today. We do have just a few questions. The
15	first was about the workers' compensation data that you
16	mentioned in your testimony. If you haven't already,
17	would you be willing to submit that in your post-
18	hearing comment?
19	MR. JUANG: Yes, certainly. Thank you very much.
20	I will do so.
21	MR. SCHAYER: Sure. Thank you. Now I'd like to
22	turn to Brenda Finter in the room here on the panel for



1 a few questions. 2 MS. FINTER: Good morning. Brenda Finter, OSHA 3 Directorate of Standards and Guidance. I just have two 4 questions for you. One, in your written comments, you 5 mentioned situations where air-conditioning systems 6 failed to function adequately, that alternative 7 engineering controls should be used. Are you aware of employers that have instituted a policy for how long 8 9 employees may work when the AC breaks down, and if they 10 do continue to work, do they have any alternate 11 controls in place to prevent heat-related injuries? 12 MR. JUANG: I apologize, I don't have that 13 information with me. If possible, I am happy to 14 provide it in post-hearing follow-up. 15 MS. FINTER: That would be great, thank you. 16 Also, should OSHA consider any other control 17 technologies that were not included in the proposal? 18 MR. JUANG: Oh, that is an excellent question. 19 And I apologize for, once again, saying that I'd like 20 to get back to OSHA on that. Again it's been a while 21 since the original written testimony, and I'm -- I 22 don't have that material in front of me.

1 MS. FINTER: We'll be happy to get them post 2 comment -- or post-hearing. Thank you. 3 Thank you. And again, I MR. JUANG: Yes. 4 apologize for postponing the answers to those 5 questions. 6 MS. FINTER: And that's all I have. 7 MR. SCHAYER: Okay. This is Stephen Schayer again. Thank you, sir, for your testimony. And Your 8 9 Honor, that concludes the questions from the OSHA 10 panel. 11 MR. JUANG: My deep thanks to all of you. 12 MR. SCHAYER: I believe you're on mute, Your 13 Honor. 14 JUDGE KULTGEN: Do we have any questions from the 15 Solicitor's Office? 16 MS. NAUGHTON: No, Your Honor. This is Sheila 17 Naughton on behalf of the Solicitor. No questions. 18 Just thank you. 19 JUDGE KULTGEN: And do we have any questions from 20 participants today? 21 MS. CARLON: We do not, Your Honor. 22 Thank you. Thank you very much JUDGE KULTGEN:

for your testimony. And we will proceed with the next witness.

MS. CARLON: The next -- excuse me. The next speaker is Sarah Wilme. Please state your name and affiliation for the record.

MS. WILME: Hi. My name is Sarah Wilme, and I'm speaking on behalf of Students for Science. We are a collective of student researchers in health science, policy, and climate working to advocate for research, support and policy that values that science. I am speaking today as a graduate student in climate science, a science communicator, but more importantly, as a blue collar worker who has experienced firsthand the dangers of not taking proper heat safety precautions.

I have nearly always worked outside prior to going back to school to study marine science. And though many of these jobs have been on the water, we have still experienced high risk of heat injury. The idea that heat injury is only dangerous at a threshold of 90 degrees is not true for all workers, and it is not true in all situations and jobs.

on my zist birthday, i experienced heat stroke in
84 degrees. I was in a marine trades apprenticeship
and we had not been properly acclimatized to our first
day working on our boats in the sun, rather than in a
cooled shop environment. We started work three hours
earlier than usual to avoid the worst of the heat, and
because we had to launch a vessel early. Around 10:00
a.m., I found that I was struggling to keep my heart
rate down and was no longer sweating. I tried to drop
my body temperature by sitting in a car with air-
conditioning, hoping that my supervisor did not notice
that I was gone and that he would not count my hours
for that day. I experienced vomiting and briefly lost
conscious in under 90 degrees of heat, with access to
water repeatedly throughout the day. We had taken all
proper heat safety precautions, but it was still
difficult without acclimatization.
This is to say that heat illness can come easier
than expected with all the right precautions. Over the
course of the next two years, I found myself
increasingly getting heat sick. I found that on days

doing repairs in a parking lot or an uncooled trailer,

I was coming home lethargic, nauseous, and unable to do anything after work for -- at least once a week in this period. This was often temperatures over 90 degrees, but there were some cooler days at the start of the summer where we were not given adequate breaks.

I often had to take unpaid days off for nausea from the heat stress incurred at work, and there was no clear solution, nor was there compensation from my employer or a plan to solve this. Now I am working in a physical labor job that is seasonal but is discouraged breaks when we are out in the sun. I have been told to stay and finish out days that I have fallen ill from the recent northeast heat wave. And I've been left alone on a project site and told not to take breaks, with a camera on, when too dizzy to perform job tasks because my hours are billed as a contractor to different projects.

We are stressing our healthcare system
unnecessarily and causing employees to fear protecting
their own safety in case of unlawful retaliation. I
could speak as a physical scientist who has studied how
difficult it can be to practically define the

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propagation of a heat wave, or discern individual 1 2 marine heat wave. I can speak on behalf of the 3 neuroscientists I advocate for health policy alongside, 4 and how their work reminds us of the cognitive damage 5 that repeat heat stress can have -- have. 6 Instead, I want to speak from experience as 7 someone who's work in the marine trades has led to having to frequently step back from the organization I 8 9 am here to represent, as heat stress at work has 10 diminished my ability to function in the evenings. 11 wanted to speak as someone whose chronic inflammatory 12 health issues have caused severe pain flaring up below

wanted to speak as someone whose chronic inflammatory
health issues have caused severe pain flaring up below
the 90 degree heat trigger. And as someone who has
lost wages frequently whose, my job did not have a heat
requirement or any requirement to protect me in this
way and did not consider this work-related injury. I
can also send a couple of papers that I mentioned that
I don't have statistics in here. I will put that in my
post-hearing statement. Thank you.

JUDGE KULTGEN: Thank you. Any questions from the OSHA panel?

MR. SCHAYER: This is Stephen Schayer from OSHA.

1 We have no questions, but I would like to thank Ms. 2 Wilme for your testimony today. We appreciate you 3 being here. 4 MS. WILME: Thank you. 5 Any questions from the Solicitor's JUDGE KULTGEN: Office? 6 7 MS. NAUGHTON: This is Sheila Naughton for the Office of the Solicitor. No questions. Just thank 8 9 you, Ms. Wilme, for your testimony. 10 MS. WILME: Thank you. 11 And any participant questions? JUDGE KULTGEN: 12 MS. CARLON: There are none, Your Honor. 13 JUDGE KULTGEN: Thank you. Thank you for your 14 testimony today. 15 MS. CARLON: The next speaker is Pablo M ndez-16 Unfortunately, we do not see your name in the Lazaro. 17 attendee list, so if you've joined under a different 18 name, please use the raise hand button to indicate your 19 presence. And if you have called in, please use star 20 three to raise your hand. 21 Our next speaker group is Wisconsin Community 22 Health Action, represented by Kaitlin Sundling and

1	Susan Nossal. Please state your names and affiliation
2	for the record.
3	DR. SUNDLING: Hi, my name is Kaitlin Sundling and
4	I am speaking on behalf of Wisconsin Community Health
5	Action. My colleague Susan is not available this
6	morning, so I'll just be speaking. So I am Kaitlin
7	Sundling. I'm an MD/PhD, physician-scientist in
8	Wisconsin. I'm presenting today on behalf of Wisconsin
9	Community Health Action, WCHA, an informal group of
10	Wisconsin based educators, workers, and concerned
11	members of the public. We've come together to work to
12	improve public health resources and policies for the
13	people of Wisconsin. I want to thank you for the
14	opportunity to speak today, and I particularly want to
15	thank the federal workers who made this rulemaking and
16	meeting possible.
17	WCHA strongly supports OSHA's proposed rule on
18	heat illness prevention with the with the addition
19	of these comments. Our comments have also been
20	submitted as documentary evidence, including
21	references. A 2024 report from the Wisconsin
22	Department of Health Services on heat-related illness

highlighted that nearly 80 percent of claims of -- for workers' compensation in Wisconsin have been denied, based on the most recent data from 2022.

This clearly demonstrates the need for stronger workplace heat protection rules, both to prevent heat illness in the first place, as well as to improve appropriate compensation for workers who are injured due to a lack of adequate heat protection. It's also important to note that many workers affected by heat illness will never make a claim, and are not represented in these data.

Much of the draft rule and supporting materials are based on the idea of a healthy worker, but many common conditions such as high blood pressure, asthma, diabetes, autoimmune diseases, or pregnancy can increase the risk of severe consequences of heat exposure. In revising the rule, baseline thresholds and provisions should be adjusted to accommodate workers with health conditions that place them at higher risk of heat illness.

For example, heat illness poses very serious risks to kidney disease patients who are undergoing routine

1	maintenance dialysis. Based on recent estimates, we
2	we estimate that over 100,000 people working in the
3	U.S. are on dialysis and are really exquisitely
4	exquisitely sensitive to high heat and high humidity.
5	About 60 percent of workers have at least one chronic
6	medical condition and most of those workers have not
7	disclosed their conditions to their employer. Fear of
8	discrimination or stigma can be a major barrier, and
9	many workers actually do not need any other reasonable
10	accommodations for well-managed chronic illnesses.
11	Thus, it is not sufficient to count on ADA
12	accommodations to protect the safety of disabled
13	workers and workers with chronic medical conditions
14	when it comes to heat illness and heat injury.
15	Extreme heat is a growing problem across a variety
16	of workplaces, including schools, many of which are not
17	air-conditioned, especially here in the northern US.
18	Workers in our area are less likely to be well
19	acclimatized to heat, and workers may be less aware of
20	the strategies for prevention, signs and symptoms of
21	heat illness compared to southern or warmer climates.
22	According to a 2022 study, the Center for Climate

Integrity estimated that between 1970 and 2025, there 2 will be a 39 percent increase in the number of school 3 districts that see 32 or more days over 80 degrees. 4 Furthermore, over 10 million students attend schools in 5 districts that will see three weeks -- or three more 6 weeks of school days over 80 degrees in 2025 than they 7 did in 1970. And of course, this applies to both students and workers and staff in those schools. 8

9 In cities, areas of increased asphalt and cement 10 can contribute to an increased heat effect known as the heat island effect. These differences in temperature 11 12 can be very drastic even within a city. Anyone who 13 works or lives in an urban environment can experience 14 this heat island effect. Workers may be 15 disproportionately impacted by heat if they don't have 16 access to cooler spaces overnight, so the -- the 17 effects of heat are not just while they are at work, 18 but whether they are able to fully recover from the 19 heat when they go home at the end of the day. 20 will disproportionately impact lower income workers, 21 who may not be able to afford air-conditioning at home, 22 as well as many communities where air-conditioning is

not common within housing.

So we have a number of different recommendations which we have listed in detail, but I -- I will summarize. So we -- we ask you to incorporate up to date and comprehensive information about common health conditions that may make workers more vulnerable to heat. To provide greater heat protection and to account for variability in temperature conditions within a geographic area, we suggest lowering the heat index threshold for the high heat trigger, or changing to only one threshold for the -- the greater provisions of the high heat trigger, using a heat index of 80 degrees Fahrenheit for those high heat trigger provisions.

The rule should be revised to prescribe what -what an employer is required to do to address broken
air-conditioning or power outages. This has been an
increasing problem in our area. This should include
timelines for action and specifications for what
additional measures should be taken when airconditioning is down. Although indoor air -- indoor
sites may be air-conditioned in most circumstances with

an intended temperature below 80 degrees, occupied spaces should be monitored regularly for the functioning of that air-conditioning and should have increased monitoring when worker concerns about heat arise.

The requirements for providing drinking water should be clarified to indicate that that water should be cool, rather than warm or hot. Also, electrolytes should be provided. This is essential because sweating can cause loss of electrolytes, and providing only water would not replenish those necessary electrolytes. The rule should also prescribe additional tools to help workers understand when they are dehydrated, and to learn the early signs and symptoms of dehydration.

The rule should be revised to provide more protections for indoor workers, including sedentary workers, where high heat may not necessarily -- may not necessarily be anticipated as a routine impact, but there may be impacts during -- you know, during high temperatures and unexpected circumstances such as not having air-conditioning. Domestic workers and day laborers should be included in these provisions, and

there should be accommodations made to protect both gig workers and contract workers.

As I've mentioned, air-conditioning is absent in many indoor working sites in our area, including in schools and assisted living facilities. In medical type facilities, including assisted living facilities, there's also an increased risk that, if workers are experiencing the effects of high heat, this would impact their ability to care for their patients.

So I wanted to also highlight the concerns for workers who work primarily out of vehicles. There should be some specific consideration for those workers, as they will experience extreme changes in temperature going from an air-conditioned environment to a high heat environment, as -- you know, for example, delivery drivers. And in some circumstances, air-conditioning may be available, but we've heard that some employers may not allow its use unless temperatures exceed the operating parameters of equipment. So we noticed that in public comment from -- from people at Wiscosh.

The use of personal protective equipment does

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increase the burden of heat-related illness. 1 2 increase the risk of overheating. So additional 3 accommodations should be made for -- for workers who 4 must work in high heat and -- you know even more 5 moderate temperatures, where overheating can occur 6 because of that personal protective equipment. 7 of personal cooling gear, such as cooling vests, should be part of a comprehensive plan for employers 8 9 keeping -- making protections -- protection plans for 10 those workers.

The rule should prescribe additional rest breaks for workers who have elevated body temperature or any symptoms of heat illness. I also wanted to emphasize that it's very important that we have ongoing data about -- about the climate as well as about the weather in order to make these decisions, including staffing of NOAA and the National Weather Service and making the information from the National Climate Assessment available. This is -- this is very important for planning for the future.

I also wanted to highlight the impacts of structural racism as well as discrimination, adding to

1	the disproportionate impacts of heat on marginalized
2	populations. I want to thank you for the opportunity
3	to provide this comment in support of strengthening
4	workplace heat injury and heat illness prevention.
5	We're very happy to take questions and provide
6	additional information either now or after the hearing.
7	JUDGE KULTGEN: Thank you. Does the OSHA panel
8	have any questions?
9	MR. SCHAYER: Yes, Your Honor. This is Stephen
10	Schayer from OSHA. First, thank you, Dr. Sundling, for
11	your testimony today. I had a question on your
12	testimony about water. You had indicated that the
13	proposed rule should require drinking water to be cool
14	rather than warm. So the proposal currently requires
15	employers to provide access to drinking water that is
16	suitably cool. So just wanted to clarify, do you think
17	this is sufficient, or are you suggesting that OSHA
18	include a specific temperature range for the drinking
19	water?
20	DR. SUNDLING: I think a temperature range would
21	be a helpful guide for employers and would would
22	take a question out of that.

1	MR. SCHAYER: Okay. Thank you. And if you have
2	any suggestions for a range that you could include in
3	your post-hearing comments, that would be very helpful
4	for us.
5	DR. SUNDLING: Great. I will thank you.
6	MR. SCHAYER: One follow-up question as well, if
7	you don't mind, on electrolytes. You mentioned that
8	the rule should require employers to offer
9	electrolytes, and just wondering if you could expand
10	under what conditions the standard should require
11	electrolytes.
12	DR. SUNDLING: I don't have a detailed answer
13	right now, but I can get back with some more
14	information. I think that in in the conditions of
15	high heat when sweating is a concern, some provision of
16	electrolytes should be routine. But there are
17	conditions where there would be additional parameters.
18	So I can get back to you on that.
19	MR. SCHAYER: Okay, great. Thank you. We would
20	appreciate that in your post-hearing comments. Now I'd
21	like to turn to Brenda Finter on the panel in the room
22	here.

1	MS. FINTER: Good morning. Brenda Finter, OSHA
2	Directorate of the Standards and Guidance. In your
3	written comments, and also this morning, you mentioned
4	situations where air-conditioning systems break down or
5	stop working due to power power outages or other
6	reasons. Are you aware of any employers that have
7	instituted a policy for how long employees may continue
8	to work if the AC is not functioning, and if they do
9	continue to work, do they have any alternative controls
10	in place to prevent HRIs?
11	DR. SUNDLING: I don't have that information right
12	now, but I can follow up.
13	MS. FINTER: That would be great. Thank you.
14	That's all I have.
15	MR. SCHAYER: Okay. Thank you, Stephen Schayer
16	again. Now I'd like to turn to Deirdre Green on the
17	panel in the room.
18	MS. GREEN: Good morning, Dr. Sundling. Thank you
19	for your testimony this morning. This is Dr. Deirdre
20	Green from OSHA's Standards Standards and Guidance.
21	So in your written comments and you also briefly
22	touched on this this morning, you recommended that the

rule should prescribe some additional rest breaks if
workers have an elevated body temperature or early
symptoms of heat-related illness.

I'm wondering if you're able to provide some information now, or even your post-hearing comments about what exactly the requirements for -- the requirements for additional rest breaks for workers with those elevated body temperatures -- like what that would look like? And some of those early symptoms of heat-related illness and how those should be operationalized?

And then I guess, as a kind of additional part to that question, you also mentioned in the written comments that rest breaks should include parameters to prioritize recovery before returning to work. And OSHA would be interested in what those parameters may look like. Specifically if there's -- if there's any information on that recommendation or how maybe we could structure that in a rule that would also be appreciated.

DR. SUNDLING: Yeah. Thank you. I can definitely provide some additional parameters and detail on that

1 in the follow-up. 2 MS. GREEN: Thank you. That's all for me, Steve. 3 Thank you again, Dr. MR. SCHAYER: Okay. 4 Sundling, for being here today and for your testimony. 5 Your Honor, that concludes OSHA's questions. 6 JUDGE KULTGEN: Thank you. Does the Solicitor's 7 Office have any questions? MS. NAUGHTON: No, Your Honor. Sheila Naughton 8 9 for the Office of the Solicitor. Just thank you, Dr. 10 Sundling, for your time. 11 JUDGE KULTGEN: Are there any participant 12 questions? 13 MS. CARLON: There are none, Your Honor. 14 JUDGE KULTGEN: Thank you. Thank you for your 15 testimony today. 16 DR. SUNDLING: Thank you. 17 MS. CARLON: The next speaker is Umair Abbas. 18 Unfortunately, we do not see your name in the attendee 19 So if you have joined under a different name,

presence.

three to raise your hand.

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And if you have dialed in, please use star

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The next speaker is Anne Berry. Please state your name and affiliation for the record.

3 DR. BERRY: Good morning. My name is Anne Berry. 4 I'm a family physician and preventive medicine 5 physician. And I'm a member of the Carolina Advocates 6 for Climate Health and Equity, an advocacy group in 7 North Carolina advocating for climate health and equity. And I'm here on behalf of myself to draw your 8 9 attention, specifically, to the effects of heat -- high 10 heat on pregnant workers.

As a family doctor, I have a special focus on both in my clinical work and my public health and community engaged work on pregnancy care, particularly in vulnerable communities. And through my experience caring for patients and working in communities, I've come across, over time, many pregnant people who are unable to access the accommodations that they need in their jobs for various reasons. But particularly, I wanted to bring up the impacts of high heat on pregnancy health and specifically mental health during pregnancy.

As the panel may be aware, mental health

conditions are now the number one cause of maternal mortality in the United States. And as you are also likely aware, maternal mortality overall continues to increase in the United States. There is emerging evidence of high heat conditions having an association with mental health harms during pregnancy. There's -- this is an emerging area. In general -- the general population, there is more literature, as you're probably aware of high heat impacts on mental health -- harming mental health.

I have been involved with some epidemiologic work
here in North Carolina linking pregnancy related mental
health emergencies, specifically emergency room visits,
to high heat conditions measured in various -- with
various different epidemiologic measurements. And so
there -- we did find that there is a link there. And I
believe other scholars as well are now following up on
this. And this has -- is continuing to -- to emerge as
a risk factor for -- for mental health emergencies and
pregnancy.

I'm not aware of any specific research on workrelated heat conditions, specifically in pregnant

1	workers. However, it would stand to reason that if
2	high heat is harmful to mental health and pregnancy in
3	general, then certainly work-related by heat exposure
4	would would also be dangerous. So I want to support
5	all of the recommendations that Dr. Sundling made to
6	strengthen the protections in this rulemaking for
7	workers. Specifically, keeping in mind the special
8	vulnerability of pregnant workers and particularly
9	mental health conditions and the the risk that poses
10	to people during pregnancy in their work. Thank you
11	very much.
12	JUDGE KULTGEN: Thank you. I think we'll do
13	questions for individuals after three of them have
14	testified if that works for the panel. Or do you want
15	to ask questions now?
16	MS. NAUGHTON: Sheila Naughton for the Office of
17	
	the Solicitor. Thank you, Your Honor. Yes, Dr. Berry,
18	the Solicitor. Thank you, Your Honor. Yes, Dr. Berry, if you don't mind holding off, we'll ask questions of
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	if you don't mind holding off, we'll ask questions of
19	if you don't mind holding off, we'll ask questions of witnesses in groups of three, if that's possible.



1	MS. CARLON: The next speaker is Madison Miracle.
2	We do not see your name in the attendee list. So if
3	you've joined under a different name, please use the
4	raise hand button at the bottom of the Webex screen to
5	indicate your presence. And if you've called in,
6	please use star three to raise your hand.
7	The next speaker is Poune Saberi. As well, we do
8	not see your name in the attendee list, so if you've
9	joined under another name, please use the raise hand
10	button to indicate your presence. And if you have
11	called in, please use star three to raise your hand.
12	The next speaker is Elizabeth Pleuss. As well, we
13	do not see your name in the attendee list, so if you've
14	joined under another name, please use the raise hand
15	button to indicate your presence. And if you have
16	dialed in, please use star three to raise your hand.
17	Would you like to pause here, Judge, for questions
18	or move to the next speaker block?
19	JUDGE KULTGEN: Let's pause here for questions and
20	then do the next block on the on the next slide in a
21	separate block. So OSHA, any questions for Dr. Berry?
22	MR. SCHAYER: No, Your Honor. This is Stephen

1 Schayer from OSHA. We would like to thank Dr. Berry 2 for your testimony and for being here today. 3 And any questions from the JUDGE KULTGEN: Solicitor's Office? 4 5 MS. NAUGHTON: No, Your Honor. Thank you, Dr. 6 Berry, again, for your time and for your testimony. 7 JUDGE KULTGEN: And any questions from participants? 8 9 MS. CARLON: There are none, Your Honor. 10 JUDGE KULTGEN: Thank you for your testimony 11 today. 12 MS. CARLON: Our next speaker is Adrienne Wald. 13 Please state your name and affiliation for the record. 14 DR. WALD: Good morning, and thank you for this 15 opportunity. My name is Dr. Adrienne Wald. 16 submitting my comments as a private citizen in strong 17 support of OSHA's heat rule and urge its swift passage 18 to prevent heat-related injuries and illnesses, and to 19 save lives in both indoor and outdoor work 20 environments. 21 As a doctorally prepared professor of nursing in 22 New York, I've conducted research on extreme heat

impacts of human health and am a member of the Alliance of Nurses for Healthy Environments and the American Public Health Association. I served as an evidence analyst on the American College of Sports Medicine 2023's position statement on exertional heat illness, which established important guidelines for preventing and treating exertional heat indexes -- heat illnesses in the sports context.

As a high school and college cross-country coach and medical volunteer at race events, including the Boston Marathon, I've treated athletes with exertional heat illnesses as well as coaches and other staff and volunteers working in outdoor heat conditions who suffered from occupational heat exposure, including heat illnesses across the spectrum from nausea, cramps and heat exhaustion to collapse from severe, life threatening heat stroke requiring urgent lifesaving treatment.

Individuals who suffer heat illness are at increased risk of experiencing again. Heat is well known -- is well known to be a leading cause of death among all weather-related phenomena in the United

States, and is a serious occupational hazard for many workers. Heat stroke, heat exhaustion, heat syncope, rhabdomyolysis, heat cramps, hyponatremia, heat edema, and heat rash from occupational heat exposure can also occur and are all preventable.

Each year, thousands of workers suffer from heatrelated illnesses, some requiring emergency room visits
or hospital admissions. And tragically, some of these
incidents result in fatalities. All add an additional
burden to health systems. It's crucial to recognize
that the brunt of these dangers fall disproportionately
on workers earning low incomes, communities of color,
and immigrant laborers who are overrepresented by
physically demanding outdoor jobs.

Many of these workers already face precarious working conditions and are further burdened by the lack of heat safety measures. Many also suffer from chronic -- other chronic health conditions, including diabetes and kidney disease, asthma, obesity, and cardiovascular diseases, placing them at increased risk of heat illnesses.

The climate crisis is exacerbating heat-related

risks, highlighting the urgency to protect America's workforce. However, most U.S. workers are not formally protected from heat exposure without a federal standard. It's not enough to have just six or seven states with partial -- full or partial protection, leaving others unprotected.

A federal standard is needed to offer uniform, evidence-based approaches for worker protection. And the proposed federal rule would statutorily cover approximately 38 million indoor and outdoor workers, with estimated benefits of 9.2 billion from avoided deaths or illnesses. The key elements of the proposed rules include adoption of two heat index thresholds, as well as many prevention steps outlined for reducing heat stress. I won't go into all of them. These are important evidence-based — evidence-based measures aimed at reducing worker risks.

In addition to these elements, I urge OSHA to strengthen the rule by adding several other important protections as already recommended by nurses and other health care professionals, including improving worker monitoring for heat-related illnesses, increasing the

frequency and duration of rest breaks, offering medical evaluations for workers at higher risk, such as those with the chronic health conditions I mentioned, the development of written heat illness prevention plans, and providing additional support for worker compliance and training initiatives.

As critics note, the new OSHA standards may require operational infrastructure changes, as well as additional costs for scheduling adjustments and increased staffing needs and costs are also likely.

However, the improvements in overall worker physical and mental health and safety, as well as worker productivity and well-being are anticipated to offset these investments.

Finally, the rule is a significant first step in protecting indoor and outdoor workers through simple, yet highly effective, evidence-based measures including training, rest breaks, shade, and water, and underscores the importance of a standard that is clear and practical to implement, particularly for employers with limited resources. I strongly support this rule as an important step towards safeguarding the health

1 and well-being of millions of American workers. 2 However, I urge adoption within a flexible framework incorporating changing climate data and the 3 evolving understanding of heat illnesses to ensure 4 5 implementation that is enforceable and successful in 6 protecting vulnerable sections of the workforce. Ι 7 appreciate the opportunity to sit in these commas as OSHA works to finalize and implement this critical 8 9 Again, thank you for your time today. I'm happy 10 to answer any questions. 11 Thank you. We'll reserve JUDGE KULTGEN: 12 questions. We'll call a couple more individuals, but 13 we will come back to you with questions. 14 The next four speakers, we do not see MS. CARLON: 15 these names in the attendee list. So I'm just going to 16 call each speaker individually. But a reminder that if 17 you have joined under a different name, please use the 18 raise hand button to acknowledge your presence once you 19 hear your name. And if you've dialed in, please use 20 star three to indicate your presence as well. 21 The first name is America Ramos. The next name is 22 Luis Alberto Pedrosa. The next name is Rodrigo Pereira



1	Gomes. And the next name is Tammy Lettieri. It looks
2	like these four speakers are absent, Your Honor.
3	JUDGE KULTGEN: Thank you. Let's go back to Dr.
4	Wald for questions.
5	MR. SCHAYER: Yes, Your Honor, we do have a
6	question for Dr. Wald. This is Stephen Schayer from
7	OSHA. I'd like to turn to Zoe Petropoulos, who's on
8	the line.
9	MS. PETROPOULOS: Hello. This is Zoe Petropoulos
10	with the Directorate of Standards and Guidance. In the
11	preamble of the proposed rule, OSHA cited literature
12	and analyses supporting the agency's claim that rapid
13	cooling of workers who are experiencing the signs and
14	symptoms of heat stroke will be highly effective in
15	preventing fatalities. Do you agree that heat stroke
16	fatalities are preventable and that rapid cooling will
17	be effective in preventing these fatalities?
18	DR. WALD: Yes, absolutely agree. The guidelines
19	from the American College of Sports Medicine call for

water.

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immediate rapid cooling, immersion. At the Boston

Marathon, we have tubs -- bathtubs filled with ice

1	And rectal temperatures are the gold standard for
2	temperature identification. Other forms of temperature
3	measurement are not adequate to accurately gauge
4	temperature. And heat stroke can often be missed if
5	other forms of temperature are monitored.
6	So we use rectal temperature and immediate
7	immersion in an ice bath. There's some new kind of
8	innovative cooling devices to rapidly reduce
9	temperature, but the gold standard is that immersion in
10	cold water, critically important for life saving as
11	a life saving measure.
12	MS. PETROPOULOS: Thank you. That's it for me.
13	DR. WALD: Absolutely. Thank you.
14	MR. SCHAYER: And this is Stephen Schayer again.
15	Thank you, Dr. Wald, for your testimony and for being
16	here today. Your Honor, that concludes the questions
17	from OSHA.
18	DR. WALD: Thank you.
19	JUDGE KULTGEN: Any questions from the Solicitor's
20	Office?
21	MS. NAUGHTON: No, Your Honor. Just thank you,
22	Dr. Wald, on behalf of the Office of the Solicitor.

1	JUDGE KULTGEN: And any participant questions?
2	MS. CARLON: There are none, Your Honor.
3	JUDGE KULTGEN: Okay. Thank you, Dr. Wald.
4	DR. WALD: Thank you.
5	MS. CARLON: The next speaker is Peter Downing.
6	Please state your name and affiliation for the record.
7	MR. DOWNING: Good morning. My name is Peter
8	Downing. I'm the Co-Founder and President of
9	Environment and Safety Solutions an environmental
10	health and safety consultancy based in Hightstown, New
11	Jersey, serving manufacturers, distributors, and
12	warehousing companies throughout the United States
13	since 2003. Prior to that, I was the Director of
14	Environment, Health, and Safety for a mid-sized global
15	manufacturing company, beginning in 1987.
16	My company has nine employees who travel
17	throughout the country to provide, among other tasks,
18	general OSHA compliance, process safety management, and
19	industrial hygiene services to our clients. My
20	viewpoints are based on my role in the manufacturing
21	sector throughout my career and my experience working
22	with hundreds of facilities throughout the U.S. in many

different industries.

The proposed heat standard will establish prescriptive rules to address an issue that most general industry companies experience. While supportive of the concept of a heat illness standard, what struck me first about this proposal was how prescriptive it was. OSHA has proposed a limited, one-size-fits-most path to compliance, rather than allowing companies to establish the methods by which they will protect their workers based on site-specific factors. This prescriptive standard establishes significant burdens on companies trying to comply and to protect their workers, while not addressing individual worker health concerns.

While I have many concerns about the standard as written, most of which have been expressed by others over the course of these hearings, I'd like to share two examples that directly impact my business. First, the heat threshold of 80 degrees Fahrenheit is too low. As a consulting firm traveling to sites throughout the country, our team is in the plant to provide our services, including identifying potential OSHA

1 violations and recommending corrective actions.

This proposal will require our small team to reacclimate to the temperatures on each site visit to sites in the south, especially to sites located in warm, humid climates such as Houston or Tennessee, or take prescribed breaks every two hours in a temperature-controlled area. This will greatly increase our costs, which may make our services cost prohibitive to the small and mid-size entities that we serve.

Second, as with many organizations, our professionals are expected to independently manage their time at sites. Because our services are dependent on observing the manufacturing processes, our team will frequently be faced with the option of violating the standard, or failing to provide an essential service intended to keep people safe in other areas.

Further, many of our clients have expressed concerns about complying with this element of the standard as it relates to their truck drivers, who are expected to deliver hazardous chemicals to unmanned or

minimally -- minimally manned sites without direct supervision. It's unrealistic to expect that a driver will suspend a delivery for a forced break before offloading has been completed. As cell phone use while unloading is banned and hours of service is closely regulated, it is unlikely an unsupervised driver will comply, despite any company's best efforts.

While good intentioned, the standard as proposed misses the mark. Based on my many years of experience, I believe that the implementation of a heat illness and injury standard should be performance-based and supported by a site-specific heat injury and illness prevention plan developed in accordance with good scientific principles, considering the needs of the site and its workforce.

As awareness has grown, my clients have reported a decline in heat illnesses, and I believe that OSHA can develop a solid standard that allows the insight and knowledge of the regulated entities to shine forth while still mandating worker safety. Thank you for the opportunity to present my viewpoint.

JUDGE KULTGEN: Thank you sir. We will -- please



- remain. We will ask questions after the next two witnesses.
- MS. CARLON: The next speaker is Vickie Chapman.
- 4 Please state your name and affiliation for the record.
- 5 And if you're speaking, you are still muted Ms.
- 6 Chapman.
- 7 MS. CHAPMAN: Good morning. My name is Vickie I'm located in Cleveland, Ohio. And last 8 Chapman. 9 year I was asked to write a program -- heat program. 10 And I followed the template of this performance-based I think it's a wonderful standard. 11 standard. 12 long overdue.

13 However as I was putting this together -- you 14 know, I had to write it for our sister plants in 15 Tennessee, South Carolina, and Alabama, where they have 16 more exposure to heat than we do in Cleveland. 17 tripped up when I was writing the emergency action plan 18 under the standard. And I just wanted to go on record 19 with my concern that in a heat emergency, if you have a 20 person who's non-ambulatory, it does specify that they 21 must be moved to a location and cooling start before 22 emergency services arrive.

1	However, being an EMT, my concern is the
2	contradiction to move an unconscious person, especially
3	if they passed out and fell down because they could
4	have a head, spine, and neck injury. One needs to
5	consider with this edict to move them to a cooler
6	location and start cooling one needs to consider the
7	level of first responder training at sites. Usually
8	most sites, if they do offer first aid training, they
9	do multimedia first aid training if they they're
10	under the two minute rule.
11	Again, it does stipulate that we're supposed to
12	talk about the equipment that sites would need to have
13	to effectively move somebody. You know, my people at
14	my site range from 110 pounds to 500. So I don't I

talk about the equipment that sites would need to have
to effectively move somebody. You know, my people at
my site range from 110 pounds to 500. So I don't -- I
don't know how to do that, you know. So I just wanted
to go on record to say that there was a contradiction
for somebody who lost consciousness and that they're
supposed to be moved and cooling started prior to
the -- in a heat emergency, prior to the -- the arrival
of medical services. Thank you.

JUDGE KULTGEN: Thank you. And please remain we will ask questions, if there are any, after the next

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1	witness.
2	MS. CARLON: The next speaker is Matthew
3	Cahillane. Excuse me. We do not see your name in the
4	attendee list, however, so if you have joined under
5	another name, please use the raise hand button to
6	indicate your presence. And if you have dialed in,
7	please use star three to raise your hand.
8	All right. And our next speaker is Juan Rengifo.
9	Before we begin this testimony or did you want to go
10	ahead and go to questions, Judge?
11	JUDGE KULTGEN: Let's let's do questions before
12	we get to the next witness, because he requires an
13	interpreter.
14	MS. CARLON: Correct.
15	JUDGE KULTGEN: So let's do questions for Mr.
16	Downing and Ms. Chapman.
17	MR. SCHAYER: Yes, Your Honor. This is Stephen
18	Schayer from OSHA. Thank you, Mr. Downing and Ms.
19	Chapman, for your testimony. I do have one follow-up
20	question for Mr. Downing. So you said sure. You
21	had mentioned the standard should be more performance-
22	oriented. And I'm just wondering if you could provide

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any more specific recommendations, either now or in
your post-hearing comments, on how OSHA could write

performance-oriented language in a way that's

sufficiently protective for employees, but also has

clarity for employers so that they can ensure they're

in compliance.

MR. DOWNING: That's the challenge, isn't it?

MR. DOWNING: That's the challenge, isn't it?

Yeah, I -- I will sit down and put some thoughts and pen to paper on that. One of the challenges that we really see, though, is that the -- the -- the transfer between locations. Because what we would do is set up a -- a policy or procedure for a site. And as we move along to different sites, we have to handle things completely differently. So you know, the ability to have some more flexibility in there for -- for operations really is helpful.

The other thing is as -- as I believe earlier it

was Doctor -- either Dr. Berry or Dr. Wald stated

that -- and I mentioned this as well in my -- in my

testimony. This the concept of being able to look

at -- while not specifically -- individual health

issues such as the high blood pressure, such as people

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who have very -- very fair skin but have to be out in the sun, who would be more prone to a heat -- heat illness more quickly, may require breaks more frequently.

So we've got to have that flexibility where maybe it's not a two hour mark, but for certain people it's an hour to an hour and fifteen minutes when they're acclimating. And then for others, it might be that they have just, you know, been in and out of areas where it has been high temperature. And we are looking at, while not specifically a fourteen day window, we still would be looking at some flexibility on the back end of that two hours, to go two and a half or maybe two hours and fifteen minutes. So you know, we're trying to get a little more flexibility for our workforce as well as the workforce of our -- of our companies with which we work. And I think that that's an important component of the standard.

Frankly, it's long overdue that we have a heat illness standard. I know coming from industry, you've heard all -- the whole gamut. I don't believe that the general -- the general duty clause is the way to go

I think the standard is important and you 1 about this. 2 know, that to me is the first step. Let's get a 3 standard in place that has some flexibility. And if we 4 find that there are areas where there are problems 5 later, you know, there's the opportunity to go back and 6 propose edits or modifications to the standard. 7 MR. SCHAYER: Okay. Thank you, Mr. Downing. Appreciate your response and any information or 8 9 specific recommendations you could provide in post-10 hearing comments would be very helpful. 11 Thank you, sir. MR. DOWNING: 12 I believe that concludes the MR. SCHAYER: 13 questions from OSHA, Your Honor. Thank you. 14 JUDGE KULTGEN: Any questions from the Office of 15 the Solicitor? 16 MS. NAUGHTON: No, Your Honor. Just thank you 17 again for your testimony, both of you, Mr. Downing and 18 Ms. Chapman, this is extremely helpful. 19 JUDGE KULTGEN: Do we have any participant 20 questions? 21 MS. CARLON: Yes, Your Honor, we have one from Mr. 22 Lundegren. Please state your name for the record.

1	MR. LUNDEGREN: Hi, Mr. Downing, this is Bruce
2	Lundegren at the Office of Advocacy at the U.S. Small
3	Business Administration. And I just wanted to follow
4	up on this issue of of really of more flexible,
5	performance-oriented standard, which a lot of small
6	businesses have advocated for. And I guess I have two
7	questions. One is, the rule talks about indoor and
8	outdoor workplaces, but doesn't really talk about
9	hybrid work areas. And you talked about your members
10	being in manufacturing and also in trucking. So I
11	assume that you have employees that are coming indoors
12	and outdoors. And do you believe that OSHA should
13	include provisions for a hybrid work type environment?
14	MR. DOWNING: I think the failure to include
15	provisions for a hybrid work environment could be
16	catastrophic. There are many times, many points in the
17	standard where there are exclusions for those who work
18	out of vehicles. There are exclusions for those who
19	work in offices. But when those same people are going
20	in and out of the air-conditioning into those
21	workplaces, have been the times that I have seen the
22	most heat illness concerns.

Truck drivers who have to get out of an airconditioned truck to deliver chemicals, and now they
have to put on the heavy PPE to work in the hot sun to
make a delivery, and have to stay with their load the
entire time. They can't get in and out of the truck.
You have to, by DOT standard, stay with your load as
it's being offloaded. So it's a very important
consideration. How can we manage this?

I've got a person who's got a lower body

temperature when they get out of the truck, but now

they put that suit on and a lot of the equipment that's

available -- the ice packs -- they don't -- they don't

work in a truck environment because there's no air
conditioner on the truck -- or a freezer on the truck

to maintain the chill of those ice packs. So you know,

we have to really look at what is out there in the

market for those people who are coming from a hot -- a

cold environment to a hot environment.

So you know, not only truck drivers but manufacturers who are going in and out throughout the day. We have seen a number of people succumb to heat illnesses more quickly as they are changing

- temperatures. So you know, you get acclimated a hell
 of a lot quicker in construction industry. And you
 know, I know that there are -- a lot of this focus is
 the high heat in the construction industry.
- I spent my first six years in the -- working -
 working construction. So I know what it was like to

 get heat stress. I know what it's like to have had to

 go inside because of exposure. But that hybrid is more

 dangerous. It really is. So we've seen a lot of those

 issues associated with hybrid, especially truck

 drivers.
- MR. LUNDEGREN: Okay. And just one other

 question. Well, actually two other questions. One

 is -- and this kind of goes to what Ms. Chapman was -
 was saying. Do you believe that the standard should

 include a provision for impractical, infeasible, or

 creating a greater hazard because it doesn't currently

 have such a provision?
- MR. DOWNING: Absolutely, absolutely. You know,
 we are always concerned about transferring hazards.

 You know, I could take an ergonomic hazard and all of a
 sudden create a respiratory hazard by transferring the

way material is processed. We see the same thing here.

If you hit a point where you have done what you can and

trying to manage it to your best of your ability as a

company, I think that we have to be able to identify

that it's infeasible.

But where it's infeasible, I think that has to be documented in the program. Because if not, companies will take advantage of that. So and this is from 38 years of manufacturing experience, working with companies all over. So where we -- where there's a determination that something is -- is impractical or infeasible, I think there has to be a documented paper trail that shows that, that can support the company's decision.

At the same time, I think that -- you know, and unfortunately, in the climate that -- the political climate that we're in right now, it's very difficult.

But I honestly believe that a study should be conducted by NIH or one of the other -- whatever's left of the agencies in the government, to look at other ways of protecting those workers and develop other methods.

Because we don't have suits that we can put on to have

1 cooling coils wrapped around our chests.

But we need to have a way that we can actually chill a worker while they're working or maintain their body temperature. You know, when I'm putting on a Tyvek suit that's coated with Saranex, the temperature increase of my body is a couple of degrees per hour. So I will see the temperature go up quickly. I know that most of the workers in the plants that I'm involved in are wearing much heavier protection, and they're struggling. They struggle as the day goes on.

A two hour load -- offloading a two hour load of chemicals is -- is hard. It's really hard. And you know, when you're working with high hazard chemicals -- you know, sulfuric acid, hydrochloric acid -- those -- those corrosives require such attention. And one of the challenges of heat stress is the lack of attention. You lose that attention over time. So how is it that I'm able to make that delivery?

And this is where I'm looking for that flexibility, that we are able to manage this a little bit differently as well. But I also have to look at, you know, what are the ways that we can protect that

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1 And so far, there aren't a whole lot of good worker. 2 options out there. So I'm not saying that the standard 3 is premature, but I think that right now there are some 4 challenges in how we implement the standard that are 5 going to -- as you said, that are going to require us 6 to have the ability to say something is impractical or 7 infeasible. 8 MR. LUNDEGREN: Okay. Your Honor, do I have time 9 for one quick follow up question? 10 JUDGE KULTGEN: I believe so yes. 11 And Peter, let me -- this Bruce MR. LUNDEGREN: 12

MR. LUNDEGREN: And Peter, let me -- this Bruce
Lundegren again, Office of Advocacy. A lot of the
small businesses have said that they're looking for a
more performance-oriented, flexible standard, which I
think you are saying. And one of the questions that
comes up is how would OSHA enforce such a standard?
Because having a prescription or a specification
standard of 80 degrees, 90 degrees, 15 minutes, you
know, all these things -- it makes it easy for OSHA to
enforce something like that. How would OSHA enforce a
more performance-oriented flexible standard?

MR. DOWNING:

I sit on the NFPA committee for

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1 combustible metals and metal dust as well as well. it's combined into NFPA 660, so the fundamentals of 2 combustible dust. And part of the challenge that we've 3 4 had in that -- in the NFPA committees is establishing a 5 prescriptive standard and a performance-based standard, 6 where someone can follow the prescriptive standard if 7 they so choose. But if they choose to go to a performance-based standard, having the ability to 8 9 certify that the -- that the legwork was done. 10

And I think one of the comments that I included was having an injury and a health prevention plan that incorporated good scientific practices. I've been a certified hazardous materials manager since 1990, so well over 30 years now. And I would put my certification on the line for any plan I wrote for a company, if it was performance-based. I don't believe that having a PE certify, because this is not the type of program that PE would be appropriately certifying. But having something where it would be certified, either by a CIH or CHMM or maybe another -- an additional credential would not be a bad idea.

I think the CHMM credential, Certified Hazardous

1 Materials Manager, is effective for this role because you are someone who deals with hazardous materials. 2 3 You're dealing with hazardous situations every single 4 day. You know, a certified safety professional, of 5 course, would be appropriate as well. 6 So if you were to go performance-based, I think 7 someone has to put a credential on the line. to put their butt on the line a little bit. And that's 8 9 That's good because we're talking about good. 10 something here that can turn in a half hour. You know, 11 someone could be fine and a half hour from now drop to 12 the floor. And we're now dealing with first aid. 13 So I think that there has to be -- if we are going 14 to performance-based, that there has to be some element 15 of responsibility that the -- that the person who 16 designed the plan and developed the plan would have to 17 That's my -- that's my gut. I don't know, 18 Bruce, if that's how you feel or if that's what you're 19 leaning towards, but --20 MR. LUNDEGREN: No, that's really helpful. Thank 21 you very much, Peter. And thank you, Your Honor. 22 Thank you for your questions, Bruce, MR. DOWNING:

1	I appreciate it.
2	JUDGE KULTGEN: Thank you. Any follow up
3	questions from the OSHA panel?
4	MR. SCHAYER: Yes, Your Honor. We do have one
5	from the Office of the Solicitor.
6	MS. NAUGHTON: Hi, yes. Mr. Downing, thank you
7	so much for your testimony and your answers to that
8	question. I just want to clarify for the record, when
9	you say PE what certification are you referring to?
10	MR. DOWNING: Professional Engineer. So
11	professional engineers have a lot of I'm not a PE
12	first off. But professional engineers because of
13	the the ethics requirements of the license and
14	because it's a license, not a certificate are drawn
15	into a lot of certification responsibilities. But
16	they're only supposed to certify those things that they
17	are uniquely qualified to certify. So an environmental
18	engineer can certify an environmental matter, a
19	chemical engineer can certify on chemical matters.
20	There's no corresponding PE role for safety
21	matters, so that's why I exclude them from this. I
22	honestly think and you're not EPA, but I think that



1	EPA should be looking at more than just PEs for
2	certifications as well, because I think that that is
3	you know, it's really not entirely appropriate.
4	But for something like this, a Certified Safety
5	Professional, a Certified Industrial Hygienist, or
6	Certified Hazardous Materials Manager are really
7	designed for this role, you know. And it's a
8	credential that has the same ethics requirements as a
9	PE. In general, the folks who sit for the exams for
10	all those exams are well educated, well trained, and
11	have to have the same continuing education requirements
12	to stay up to standard. So thank you.
13	MS. NAUGHTON: I also have one question for Ms.
14	Chapman, if we have time, Your Honor.
15	JUDGE KULTGEN: Yes.
16	MS. NAUGHTON: In your testimony, you wanted to
17	clarify something you referenced the requirement for
18	moving removing workers if they're unconscious. I
19	just wanted to understand where you were seeing that in
20	the reg text, or if you could elaborate on that
21	requirement in your either here or in post-hearing
22	comment, that would be very, very helpful. Thank you.

MS. CHAPMAN: If you look at the standard, when you start talking about developing the emergency response plan and you also dovetail into the reporting requirements for loss of consciousness and also for the definition of heat emergency. And you look -- for example, I'm looking at the standard right here.

Under paragraph (g) to employees experiencing signs and symptoms of heat-related illness, you must, you know, provide them with the means to reduce their body temperature if they're -- paragraph (3) -- if an employee is experiencing signs and symptoms of heat emergency, the employer must take immediate action to reduce employee's body temperature until medical services arrive.

It just goes without saying that you're supposed to, throughout the standard, get them and start immediate cooling before emergency services arrived if they are in a heat emergency. So you're looking at the possible loss of consciousness with heat stroke or even with heat syncope, you could lose -- you could you could have a fainting attack, fall down, you know, and be on the floor. Somebody responds and say, hey, are

1	you all right. The you know, the first thing is
2	you don't want to move them, necessarily, until you
3	figure out, you know, if they've injured themselves
4	further, depending on the type of fall they took. So
5	it's kind of a compilation of all the things in the
6	standard.
7	MS. NAUGHTON: Okay. Thank you. Thank you, Your
8	Honor. And thank you, Ms. Chapman. That is helpful.
9	MR. SCHAYER: Your Honor, I believe you may be on
10	mute.
11	JUDGE KULTGEN: Thank you to both witnesses.
12	MS. CARLON: All right. Before we move to our
13	next speaker, I just want to make a logistical reminder
14	in terms of enabling interpretation, all end users in
15	Webex have access to a globe that is at the lower left-
16	hand of your Webex application. So please click on
17	that and you can switch to the Spanish channel to
18	enable interpretation. Once you click on that channel,
19	you can move the dial all the way to the right-hand

English.

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side, and you'll be able to hear the interpretation in

left-hand side of that globe, and you can follow along

You can also click on the CC icon to the

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with closed captioning as well.

Our next speaker is Juan Rengifo. Please state your name and affiliation for the record.

DR. RENGIFO: Good morning. My name is Juan

Carlos Rengifo. I am doctor from Colombia. I would

like to begin thanking you all and OSHA for giving me

this invitation. And I want us to go directly to the

PowerPoint where I tried to demonstrate something.

9 According to the document I share from OSHA, that 10 we're working from 2023 to present. And when we're 11 talking about things that the United States needs to do 12 in relation to regulating the heat. And through this 13 document, I attempted to express that we can apply 14 directly those variables of climate change from a 15 global perspective. If we have to see the entire world 16 that there is an atmosphere and stratosphere inside the 17 Earth planet. We must consider the global warming applied to who? In the image we can see the worker --18 19 the US workers that are near or exposed to the UV rays. 20 My intention is to explain how we can see these 21 applications from a point for a physical protection, 22 implementing something that I did not see in the

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document.

2 If we have, in consideration, that the heat -- in 3 consideration is speaking about a specific rule so that 4 us, that we handle security and wellness at work 5 interpret the variables directly from the heat dome or 6 index -- heat index specifically. Then we must open 7 the document, please. Can you please open the document, if you could? If you could click the link. 8 9 Thank you.

And we're going to go directly to the interpretation that is given -- the document. And we're going to go directly low -- to letter C. Please go down. Go down more. Go down down, down, down. There.

The supplement of C, that identify that from the heat dome implementation, what refers to how the heat index that should be -- or should be reserved to 80 degrees Fahrenheit. If we are exposed to a determined global temperature, I wanted to refer something directly. If we can return to the PowerPoint. Let's click the first link of the second PowerPoint. Thank you.

1	The creation of what can we do do what? Of							
2	a protective a creation of a protective shield that							
3	is created with a microfiber, which could be useful to							
4	protect from the heat rays that could cover, not only							
5	the part that is exposed who is the worker, but also							
6	the infrastructure that we can build in certain areas.							
7	If we apply this determined protector as a filter that							
8	repel those sun rays that are determined within that							
9	Earth part and the atmosphere, we could do a complete							
10	coverage and avoid various problematic characteristics							
11	to the body, which I like, such like skin cancer,							
12	hair fall, or exposing, what are we talking about							
13	specifically in this conversation, which is							
14	dehydration.							
15	Let's go to the third PowerPoint slide, please.							
16	Third please. And this let's select the link. And							
17	I want to retaliate that something that's important.							
18	Yes, we are hydrating properly our workers is the							
19	question? If we see in the document, and indeed we see							
20	that directly, we are supposed to contribute can we							
21	go down, please we should contribute for that							
22	that that figure right there. Let's click right there.							



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The top figure. Let's click the link for the figure -
for the image. If we can open that.

What do we need. We need to give -- can we go down in the document or down low. Let's go down, let's go down, let's go down, let's go a little bit up, a little bit up, a little bit up, a little bit up. More, up more. Right there. Just go down a little bit where it talks about liquids. Exactly.

9 Here I want to refer something that's important. 10 If in the document, we are saying that workers should 11 be hydrated with an adequate amount of liquids and 12 protections and including as coverage, so that the sun 13 rays don't penetrate. The question that I have is, are 14 we properly, truly hydrating the worker? The document 15 is clear. It says that they should consume a liter 16 within the work shift of a certain amount of time. 17 that liquid, we don't claim consideration that we are 18 giving that organism only water with minerals, 19 the body -- I could give you this from a medical 20 perspective -- the body that received the hydration 21 that only received water with mineral, and therefore 22 they are wasting it because of the expulsion of heat

through sweat and through the activities that they
generate through the -- let's go to the next image,

please. All right. There.

This part that we see portrayed is -- constitutes one cell within our organism. As we can see, there's an external part and an internal part of the cell. It constitutes of important elements such as sodium, potassium, chloride, and magnesium. For the functioning of said liquid elements, they should have this internal component. Let's go down in the image. A little bit more right there.

In our brain, we have a specific element in the brain that activate the absorption of water and the elimination through the kidneys when it's activated as a mechanism of a heat stroke, what causes the body to eliminate the water. And the patient that is having said high temperature, therefore, it's going to get dehydrated. And what am I referring to? That that worker, when we are submitting them to high temperature and as company we are hydrating them, we are doing it wrong because they don't have a fundamental element.

So it could become a corporal reconstituent.

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And that corporal reconstituent, we could do it normally. But in the document says we can only supplement with water. And that element that we could use is sodium. In the water that we provide workers, we can add -- so they can have a proper hydration -- we can add a mineral called sodium, which will allow to replenish the loss that are -- is happening through urinating or sweat. Let's go down in the image. Let's go please.

10 And so we have a clinical frame when it comes to 11 adult dehydration. When we are submitting ourselves to 12 said loss we must supplement with that. We have a mild dehydration, moderate dehydration and an extreme 13 14 dehydration. When the worker doesn't consume the drink 15 and the element of sodium, if they don't have an 16 absorption -- a proper absorption of the liquids, then 17 they will have a slight loss. But if we're going to 18 face temperatures like heat says that are over 80 19 degrees and they don't want to escalate to 90 degrees. 20 Then we're going to have moderate to severe 21 dehydration. And we can implement these things in our 22 factories and our industries and construction giving

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supplements. Let's go to the next image.

2 In this case, you will be able to see as companies -- as large industry, you can just activate 3 4 it by not only consuming the beverages that we have on 5 the last slide, but supplementing them with salty 6 beverage or implementing the sodium, which could 7 improve the conditions of dehydration due to heat stroke, which may really worsen the quality of work and 8 the quality of life of those patients who are 9 10 submitted, according to (AUDIO MALFUNCTION). So they 11 can have a hydration.

So here we have two coverages which I found in this document, which can be implemented. And make these to have a more fruitful -- it will be better and it can be implemented in different industries and companies. So first we need to -- like we need to have this evidence which is needed. We need to have a protective shield regarding the -- that divides the sunrays between the ground and the atmosphere for the new constructions.

And then what I found here in the document that there is no dehydration and with having this main

1 element, the water, which it lacks, and main substance 2 which it may be supplementary and hydrating for the 3 body. So I don't know if any of you have a question. 4 Let's just go back to -- to the slide and I am ready to 5 hear any questions. 6 JUDGE KULTGEN: Thank you. Does the OSHA panel 7 have any questions? 8 MR. SCHAYER: This is Stephen Schayer from OSHA. 9 No, we do not. Thank you, sir, for your testimony. 10 JUDGE KULTGEN: Any questions from the Solicitor's 11 Office? 12 Your Honor, this is Sheila MS. NAUGHTON: Yes. 13 Naughton from the Office of the Solicitor. 14 have any questions, but I would like to mark Mr. 15 Rengifo's presentation and the linked materials as 16 Exhibit No. 16 and enter that into the record with your 17 permission. 18 JUDGE KULTGEN: Yes. We will enter that as 19 Exhibit -- did you say 17? 20 MS. NAUGHTON: Oh, sorry. 16, yes. 21 JUDGE KULTGEN: 16. 22 MS. NAUGHTON: Thank you.

1	JUDGE KULTGEN: Any questions from the							
2	participants?							
3	MS. CARLON: There are none, Your Honor.							
4	JUDGE KULTGEN: Okay. Thank you, Doctor, for your							
5	testimony today.							
6	DR. RENGIFO: Mucho gracias.							
7	JUDGE KULTGEN: That is the end of the witnesses							
8	on the list for this morning. Have any of the							
9	witnesses that were skipped earlier joined the meeting?							
10	MS. CARLON: By looking at the attendee list, Your							
11	Honor, none of them have.							
12	JUDGE KULTGEN: If any can you ask for to							
13	make themselves known, if they have?							
14	MS. CARLON: Absolutely. I can just recall each							
15	name quickly. I'm going to just run through the list							
16	of absent attendees. And if you have joined under a							
17	different name, please go ahead and use the raise hand							
18	button at the bottom of the Webex screen to indicate							
19	your presence. Or use star three if you called in.							
20	First, Pablo Mendez-Lazaro? Susan Nossal? Umair							
21	Abbas? Madison Miracle? Poune Saberi? Elizabeth							
22	Pleuss? America Ramos? Luis Alberto Pedrosa? Rodrigo							

1	Pereira Gomes? Tammy Lettieri? Matthew Cahillane?						
2	Looks like, unfortunately, none have joined at						
3	this time, Your Honor. You are muted, Your Honor.						
4	JUDGE KULTGEN: Thank you. That being the last						
5	witness scheduled for this morning, we will break for						
6	lunch and the hearing will resume at 1:00 p.m. Eastern						
7	Daylight Time. Is there I should have asked. Are						
8	there any housekeeping matters that need to be						
9	addressed before we go off the record? I'm seeing some						
10	head shakes from the panel. So then we will go on our						
11	lunch break and return at 1:00 p.m. Eastern Time.						
12	Thank you.						
13	(Lunch break.)						
14	MS. CARLON: This is Mariam Carlon from Abt						
15	Global, OSHA's contractor. It is 1:00 p.m. Eastern						
16	Time and we are now rejoining OSHA's informal						
17	rulemaking hearing for Heat Injury and Illness						
18	Prevention in Outdoor and Indoor Work Settings.						
19	Before we begin, we'd like to go over some						
20	logistics for today's public hearing. As a reminder,						
21	all attendees are muted and are muted automatically.						
22	All Webex attendees can access closed captioning and						



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1 translated captioning by clicking on the CC icon in the 2 lower left-hand corner of the application. 3 individually select your caption language if 4 translation is required. 5 We will pause shortly as I share the same slide in 6 Spanish. 7 MS. CARLON: All YouTube viewers will have access to auto translation the day after the hearing. All 8 9

to auto translation the day after the hearing. All Webex attendees delivering testimony will have access to a countdown timer to ensure allotted time is adhered to. We will launch the timer for you, and it should be seen on the right-hand side of your screen. If you do not see this app launched in your Webex window, please follow the instructions on the screen to manually launch this app.

If you are speaking today, you will receive a notification on your screen that you are being promoted to the panelist's role a few minutes before it is your time to provide testimony. Once promoted to the panelist's role, you will be able to unmute and turn on your camera. We ask that you do not unmute or turn on your camera until your name has been called, and you

1 have been asked to start your testimony.

Speakers connected by telephone should unmute their phones when called to testify. If you submitted a presentation in advance, we will share the file and advance the slides. Please cue us verbally by saying "next slide" when you need us to advance.

Depending on timing, there may be opportunity to ask questions of other speakers giving testimony. You may -- you may press the raise hand button at the bottom of the Webex application to indicate that you have a question. If there is time, you will be called on by name and promoted to the panelist group to unmute and ask your question.

If you are having any technical difficulties, please send an email with your name and phone number to Public_Hearing@AbtAssoc.com.

Now, we will continue with our public testimony.

The expected speaking order is currently displayed on the screen. I will be introducing each speaker in turn. Please speak slowly and clearly so our court reporter can record these proceedings accurately.

The first speaker group is Moms Clean Air Force,



represented by Elizabeth Bechard, Pita Juarez, Shaina
Oliver, and Mary Wagner. Please state your names and
affiliation for the record as you all move throughout
your testimony.

MS. BECHARD: Thank you so much. My name is
Elizabeth Bechard. I'm a public health manager with

Moms Clean Air Force, and we are a national

organization of over 1.5 million parents and caregivers

united on advocating on behalf of our kids' right to

clean air and a healthy future.

And I'm here today on behalf of Moms Clean Air

Force and our sister organization, EcoMadres, which

supports Latino communities in fighting for clean air

and equitable climate solutions. And I want to express

our strong support for OSHA's heat injury proposal, and

would like to turn it over to my colleague, Pita, to

share her perspective.

MS. JUAREZ: Good morning everyone. My name is Pita Juarez. Thank you for the opportunity to speak today. I live in Phoenix, Arizona. I am an aunt of ten nieces and nephews, and I serve as a field consultant for Moms Clean Air Force, a national

community of more than 1.5 million parents united to protect our children from the dangers of air pollution and the growing threat of climate change.

I'm proud to call Arizona home, but as we all know a beautiful desert state comes with extreme heat that is becoming more dangerous every year. I care deeply about this issue, not just because I've seen it in the headlines, but because I've seen the direct impact of extreme heat on the people that I love the most, my family.

Both of my brothers work outside. Both are small business owners that, even in the shade, have to bear the brunt of extreme heat. They are among the many Latino workers who keep our communities running, whether that's building homes, maintaining outdoor spaces, or supporting essential infrastructure. Every summer I worry about them. I worry that they will suffer from heat exhaustion or worse, because in Arizona, it's not uncommon for the temperatures to go above 120 degrees. Anything can happen.

This is not just uncomfortable, it's life threatening. Both of them experience high fatigue

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1 every summer because regardless of how much they have 2 invested in small swamp coolers, or outdoor fans, 3 extreme heat prevails. Extreme heat is a serious growing danger for outdoor workers across the country, 4 5 and especially here in the southwest. Without proper 6 protections, workers face heat exhaustion, heat stroke, 7 and even death. We see it every single year here in Arizona. 8

I've heard my brothers talk about coworkers
getting dizzy, needing to rest under shade, and
sometimes pushing themselves beyond safe limits because
they don't want to seem weak or get fired from their
jobs. They don't always have consistent protections,
and that's just unjust. No one should have to risk
their health to provide for their family.

Latino workers, like my brothers, are

disappropriately (sic) represented in outdoor jobs,

particularly in agriculture, construction and

landscaping. In fact, nearly 80 percent of farmworkers

self-identified as Hispanic. These are people who put

food on our tables, build our communities, and keep our

cities running. But they're also the most vulnerable

when it comes to heat exposure.

The OSHA heat injury proposal is a long overdue critical step to ensure that outdoor workers have the protections they need to stay safe. I strongly support the proposal and urge OSHA to finalize the strongest possible version without delay. Lives are at stake. Workers should not have to choose between a paycheck and their safety. Strong, enforceable standards can make a real difference and give families the peace of mind that they deserve.

Given the heat waves are becoming more frequent and intense we ask that the final rule include additional protections for workers during these heat waves. We ask that the final rule include stronger protections for particular vulnerable people, including pregnant people, elders, individuals with preexisting conditions, and workers who may be exposed to additional stressors, like air pollution on the job. Thank you.

JUDGE KULTGEN: Thank you. Is that the end of the testimony from Moms Clean Air Force.

MS. BECHARD: Your Honor, we've got Shaina, and

1 Mary, online as well I believe. 2 JUDGE KULTGEN: Okay. You can proceed, Ms. Oliver, or Ms. Wagner, whoever wants to go next. 3 4 Good afternoon. MS. WAGNER: 5 MS. OLIVER: Okay. 6 I'm sorry. Good afternoon. MS. WAGNER: My name 7 is Mary Wagner, and I am the Nevada field organizer for Moms Clean Air Force and EcoMadres. I have been a 8 9 proud resident of Nevada for the last 17 years. 10 I'm a mother of two, one of whom has asthma. 11 in Las Vegas, one of the fastest warming cities in the 12 country. Just this June, we've already hit triple-13 digit temperatures. That means higher energy bills for 14 families like mine, more sickness, and less time for 15 kids like mine to play outdoors. For children, elders, 16 and people with preexisting conditions like my son, 17 extreme heat isn't just uncomfortable, it's dangerous 18 and costly. 19 Working outdoors in this kind of heat can be life 20 threatening. This year alone we have already had three 21 heat-related deaths in Nevada. Exposure can lead to 22 heat exhaustion, heat strokes, and even death if not

1	treated quickly. Extreme heat drives up hospital
2	admissions for respiratory and heart issues. This is
3	personal for my community. Many of our Latino families
4	work outdoors in construction, landscaping,
5	agriculture, and other physical demanding jobs that
6	keep this city going.
7	Latinos are at disproportionate risk. About 80
8	percent of farmworkers in this country identify as
9	Hispanic. And since 2010, Latinos have made up about
10	one-third of heat-related work deaths in the U.S.,
11	despite representing only 17 percent of the workforce.
12	As a Latina mother, I've also experienced
13	firsthand the dangers of being pregnant in Nevada's
14	extreme heat. Pregnant people face higher risk for
15	pre-term labor, low birth weight, and pregnancy loss.
16	Barriers like poverty, and language language access
17	only make it harder for mothers in our country to get
18	the care they need during pregnancy.
19	Beyond physical health, extreme heat affects
20	mental health, increases violence, disturbs sleep, and

Beyond physical health, extreme heat affects
mental health, increases violence, disturbs sleep, and
leads to higher rates of hospitalizations and death.

Heat is a silent killer, one that doesn't stop, not

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even at night when families should be able to rest and recover.

Without bold action, this crisis will only get worse. By 2050, we could be facing three to four times as many dangerously hot days if we fail to reduce climate pollution.

Our key asks are the following: strong support for the rule. Moms Clean Air Force strongly supports OSHA's heat injury proposal as a critical step toward developing strong heat stress and injury prevention standards for workers. We call on OSHA to finalize the strongest possible version of this standard as quickly as possible.

We're testifying today because our voice -- our voices matter. This is our chance to speak up for our communities and loved ones, increased protection for at risk pollutions, we urge OSHA to include stronger protections for vulnerable groups like pregnant people, older adults, adults -- those with preexisting health conditions, and workers who may face additional risk, such as exposure to air pollution on the job.

We asked increased protection during heat waves.

1 Heat waves are becoming more frequent and more intense. 2 The final rule must include added protection for 3 workers during these dangerous periods. We also ask 4 for cultural responsiveness. 5 We strongly support the rule's inclusion for 6 language access requirements to ensure that heat safety 7 information is available in languages workers and supervisors can easily understand. This must be 8 9 maintained in the final rule to ensure true equity in 10 workers' protections. Our families, our workers, and 11 our communities deserve better. The time to act is 12 Thank you for your time. now. 13 MS. OLIVER: All right. Thank you for taking time 14 to hear -- hear our comments. My name is Shaina 15 Oliver, field organizer with Moms Clean Air Force, 16 EcoMadres, Colorado Chapter. 17 Over 43,079 Colorado parents and caregivers are 18 united for our children's right to play and live --19 learn, and live in a safe environment. I first wanted 20 to acknowledge the ancestral lands of the over 574 21 tribal nations of what is now known as the United 22 States.



I work and reside on the ancestral lands of 48 tribal nations of Colorado. Importantly, I'm a mom of four, and wife, and we are descendants of the Indian Removal Act known as the Long Walk of the Navajo.

Living and working in Denver, Colorado, as a working mother with loved ones and family members, our communities are socioeconomically vulnerable and are most likely to work the farms, construction sites, utility sites, and as first responders.

And according to the Association of Farmworker

Opportunity Programs, it's estimated -- it's estimated

that there are up to 500,000 child farmworkers in

the -- in the U.S., with some starting work as young as

age 10. I know family members who work agriculture

jobs in Colorado and they are not the best -- best jobs

to have. These work sites do little to provide

appropriate cooling spaces and cool water

accessibility.

I also have a father who is an electrician who's expected to work through all weather conditions, and has worked at many construction and oil and gas sites.

Each year, Colorado, along with other states, continues

to break record -- break record heat indexes and poor air quality continues to increase along with the heat.

According to the American Lung Association's most recent State of the Air report, Colorado's communities Denver, Greeley, and Aurora continue to rank as the sixth worst area for ozone smog pollution, which is made worse by extreme heat and is detrimental to workers — to outdoor workers, child workers, and pregnant workers who are especially vulnerable.

Moms Clean Air Force recognized that farmworkers are at high risk of heat-related stress. They are up to 35 times more likely to die from heat-related stress than the general population. 80 percent of farmworkers identify as Hispanic, and one analysis found that construction workers are 13 times more likely to die than workers in other industries.

A 2020 study of child farmworkers in North

Carolina found that 48 percent had experienced a heatrelated illnesses -- illness within the previous 12

months. As moms, we know, extreme heat has adverse
impacts on maternal health, which has been linked to
preterm birth, low birth weight, pregnancy loss, and

heat-related stress in newborn babies, according to the Bureau of Labor Statistics.

Exposure to environmental heat results -- resulted in 479 U.S. worker deaths between 2011 and 2022, with an average of 40 fatalities per year during that time period. Colorado parents strongly support OSHA's heat and injury and illness protection plan proposal. This is a critical step towards protecting outdoor and indoor workers faced with extreme weather and heat stressors.

Moms Clean Air Force calls on OSHA to finalize the strongest -- strongest possible version of this standard as quickly as possible with the inclusion of additional protection for workers during heat waves and poor air quality days.

I now turn it over back to Elizabeth Bechard. And I thank you for taking time to hear our comments.

MS. BECHARD: All right. Shaina, and Pita, and Mary, given that, you know, communities across the country have already experienced record breaking heat in just the past few weeks, and that every year it's getting hotter, we want to reiterate our wish that

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1 OSHA's heat injury proposal be finalized as rapidly as 2 possible, and that you finalize the strongest possible version of this rulemaking. 3 4 And we thank you again for your time and your 5 chance -- and the chance to comment today. 6 so much. 7 JUDGE KULTGEN: Thank you. Any questions from the

OSHA panel for any of the four speakers? 8

9 MR. LEVINSON: Yes, Your Honor, Andrew Levinson 10 for OSHA.

> First of all, ladies, thank you very much for your testimony. We greatly appreciate you taking the time to join us and offer your thoughts and experience from Moms Clean Air Force.

A couple of questions, the first one is, several of you made remarks about strengthening protections during heat waves. Either now or in post-hearing written comments, we would like to know your thoughts on what additional protections you think people should have during heat waves. And if you have a definition of how would workers or employers know when it was actually a heat wave?

1	MS. BECHARD: We would love to follow up in post-							
2	hearing written comments on that. Is there can you							
3	direct us to the best way to do that?							
4	MR. LEVINSON: Sure. If you go to the OSHA							
5	website for this rulemaking							
6	MS. BECHARD: Okay.							
7	MR. LEVINSON: we have a webpage that explains							
8	all the post-hearing comment procedures. And since you							
9	filed a notice of intent to appear, we will be posting							
10	a list of questions on the website and emailing it to							
11	everybody who filed a notice of intent to appear. So							
12	you should keep an eye out for an email from us in the							
13	next probably week or so							
14	MS. BECHARD: Okay.							
15	MR. LEVINSON: with information on that.							
16	MS. BECHARD: Sure.							
17	MR. LEVINSON: My second question is probably							
18	directed toward Ms. Wagner, but your organization,							
19	broadly, may want to think about it. One of the things							
20	that OSHA has heard repeatedly during this hearing is							
21	that we should change the proposed reg to model it more							
22	on what Nevada OSHA has done. They recently							

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promulgated a new reg that went into effect at the end
of April of this year.

And so we were curious, the experience from your
members in Nevada, if they've seen a change in the way
that employers are handling things in the state, and/or
if you think that what Nevada OSHA has done is -- has
been effective in protecting workers.

And in particular, one of the things I want to direct you towards, the Nevada OSHA standard is much more performance-oriented and includes fewer requirements, like specific temperature triggers, or water amounts, and gives employers a lot more flexibility to adapt the plan to the work environment. And so either if you have thoughts now, or if you'd like to take some time, look at the Nevada OSHA approach, we would love your experience on that.

MS. BECHARD: I can jump in here on behalf of Moms and EcoMadres. We would definitely follow up afterwards and respond to that specifically. It's a great question.

MR. LEVINSON: Great. Thank you. And I think
that concludes the questions from the OSHA, Your Honor.

1	JUDGE KULTGEN: Any questions from the Office of						
2	the Solicitor?						
3	MS. WILES: Thank you, Your Honor. Linda Wiles						
4	from the Solicitor's Office. I do have one follow-up						
5	question. And as Mr. Levinson suggested, you can						
6	consider including a response in post-hearing comments.						
7	This was about some testimony about language access.						
8	If you have recommendations for how best to provide						
9	language access to folks that you represent. We would						
10	love to hear your recommendations on that either now or						
11	in post-hearing comments.						
12	MS. BECHARD: I will jump in again and say that we						
13	can absolutely provide post-hearing comments on that,						
14	but I want to offer my colleagues a chance to respond						
15	to that now as well, if they'd like to.						
16	Or just in writing. We'll certainly follow-up						
17	with that question as well.						
18	MS. WILES: Thank you. That's all for me, Your						
19	Honor.						
20	JUDGE KULTGEN: And just for the record, the						
21	responses from to the questions were made by Ms.						
22	Bechard.						



1	Do we have any questions from participants?							
2	MS. CARLON: There are none, Your Honor.							
3	JUDGE KULTGEN: Thank you. Thank you all for your							
4	participation and testimony today.							
5	MS. BECHARD: Thank you so much.							
6	MS. CARLON: The next speaker is Sonya Owens.							
7	Please state your name and affiliation for the record.							
8	MS. OWENS: Can you hear me?							
9	MS. CARLON: Yes, we can.							
10	MS. OWENS: Okay. Hello, everyone. My name is							
11	Sonya Owens. Thank you for the opportunity to comment.							
12	Some of the work we do is							
13	(Audio malfunction.)							
14	JUDGE KULTGEN: Ms. Owens, at least from my point							
15	of view, we have lost your audio. Ms. Owens?							
16	MS. OWENS: Okay. We'll continue. We recommend							
17	no mandate. This proposed rule is very similar to the							
18	earlier one for weekly COVID-19 testing. That mandate							
19	resulted in OSHA being sued by the National Federation							
20	of Independent Businesses. The court decided							
21	essentially three points: the statutes do not							
22	authorize the Department of Labor and OSHA, COVID-19 is							

1	not an occupational hazard, and OSHA only regulates and							
2	enforces occupational hazards. The gist is the heat							
3	must be generated from the work itself.							
4	If we can progress to slide nine, please:							
5	Temporary methods of relief, not scientifically or							
6	medically proven to be reliable or predictable in							
7	prevention is a basket full of negligence.							
8	Next slide: There simply aren't enough laws,							
9	rules or training to							
10	(Audio malfunction)							
11	THE COURT REPORTER: Ma'am, this is the court							
12	reporter. You did cut out again.							
13	MS. CARLON: Ms. Owens, are you able to hear us?							
14	MR. LEVINSON: This is Andrew Levinson from OSHA.							
15	Either Your Honor or Mariam, might I suggest? Maybe a							
16	phone call, and if we can connect Ms. Owens by phone,							
17	that might be helpful in this instance.							
18	MS. CARLON: Yes.							
19	MS. OWENS: I'm sorry. I'm experiencing a poor							
20	connection. Can you hear me well?							
21	MS. CARLON: Now we can hear you. Now that we can							
22	hear you, I think it'd be a good idea if we switched							



1 over to your phone, if you have your cell phone by you, 2 Ms. Owens? 3 MS. OWENS: No, I don't. Let me -- let me just 4 pause for a second. If you want to go to the -- to the 5 next presenter while I get this set up. Or if you have 6 a couple of minutes, that's fine. 7 We can -- we can continue to help you MS. CARLON: so we can continue with your testimony, if that is all 8 9 right. 10 MS. OWENS: Okay. 11 (Technical difficulties.) 12 I'm not connecting. MS. OWENS: There. 13 Oh, yes. Let me close this down. connected. 14 see me? 15 We cannot see you, if you haven't hit MS. CARLON: 16 the start video --17 MS. OWENS: Can you hear me? 18 MS. CARLON: We can hear you loud and clear. Can 19 you hear me? 20 MS. OWENS: Can you still hear me? 21 MS. CARLON: Yes, we can still hear you. 22 All right. I'm on a -- on a tablet. MS. OWENS:

1 I've come off the laptop, and I'll try to progress from 2 here. 3 Can we move to slide 14, please: We looked at the 2021 Business Census and found that 49 percent of the 4 5 businesses have four or less employees, we converted 6 those numbers for OSHA. 7 Next slide please: OSHA --(Audio malfunction) 8 9 Ms. Owens, we lost your audio JUDGE KULTGEN: 10 again. Ms. Owens? 11 Judge Kultgen, I'll try to reach out MS. CARLON: 12 to her directly offline and see if we can go ahead and 13 get her switched over to phone. If it's okay, to move 14 on to the next speaker, and then we'll go ahead and add 15 her. 16 JUDGE KULTGEN: That makes sense. 17 MS. CARLON: Okay. No problem. 18 MS. OWENS: I didn't -- I didn't hear that. 19 you hear me? 20 JUDGE KULTGEN: We can hear you again. The 21 contractor is going to contact you, and we're going to 22 move on to the next speaker. But we will come back to

1 you. 2 MS. OWENS: Okay. I think you're saying that you'll come back to me. Could you be more --3 MS. CARLON: Yes, we will -- I'm going to reach 4 5 out to you offline, and then we'll work on --6 MS. OWENS: All right. I'm going to close off. 7 MS. CARLON: Yes. That's right. MS. OWENS: And I'm going to switch locations. 8 9 All right? 10 MS. CARLON: I appreciate that. I will contact 11 you directly and we'll get you back on so we can go 12 through your testimony. 13 MS. OWENS: Thank you. 14 MS. CARLON: No problem. 15 All right. Our next speaker is Valerie Collins. 16 We do not see your name in the attendee list. So if 17 you have joined under another name, please use the 18 raise hand button to indicate your presence, and if you 19 have dialed in, please use the -- excuse me -- please 20 dial star 3 to raise your hand. 21 Our next speaker is Julie Samples. Please state 22 your name and affiliation for the record.

MS. SAMPLES: Good morning, or good afternoon. My name is Julie Samples, and I'm an attorney with the Oregon Law Center's Farmworker Program, a position I've held since 2001. Thank you for the opportunity to provide comments today.

Oregon adopted permanent heat illness prevention rules in 2022, effective 2023. The adoption of the rules was the result of the efforts of farmworkers, including farmworkers who died or suffered greatly because of heat-related illnesses, legal services programs, a union of farmworkers, health care providers, regulators, the governor's office, and others.

My comments are based on over two decades of listening to farmworkers, and I share two of their voices with you today. One farmworker told us: I work at the piece rate, and it is hard for me to take breaks because I must meet a quota. I know the importance of drinking water and want to drink water throughout my day, but when the water is located three, four, and five minutes away from where I am working, I cannot drink as often as I should. Water should be very close

to the workers so we can drink it easily.

Some employers do not allow water in the orchard next to the trees where we are working, but they can easily have water available to us because I have seen this in other orchards. If we cannot drink water easily, how do we stop heat stress?

Another farmworker said: Ideally there would be a place to rest under tents where water could be located as well, along with tables and chairs. All my coworkers look for shade to rest, and normally we find it under the plants or bushes, but we must crouch down and sit on the dirt. Without some prescriptive measures, where and how far water is located, where and when rest breaks should be taken, where and what shade is appropriate, what element should be in a prevention plan, who should be trained and on what; you end up with workers crouching down in the dirt at a time when they should be resting.

Or worse, farmworkers develop heat-related illnesses and they not only miss days of work, they become ill. One part that makes Oregon's heat stress standards unique is that there are also heat standards

that apply in employer-provided labor housing. These standards were enacted in part to improve sleep so workers could rest and hopefully reduce the heat load from one day to the next.

Some of the provisions of that standard include cooling areas, so if the rooms where people sleep are not able to maintain an indoor temperature of 78 degrees Fahrenheit, or less, employers must provide a cooling area to cool off.

I will note that there are some changes to that section that will begin January 1st, 2027. There's also temperature awareness, so employers must provide a thermometer. There's a training component. There's information, so employer must -- employers must display a heat risk and housing poster. And then there's access. So employers must ensure that occupants always have access to a working telephone. Many labor housings are located in an area where cell phones don't always get a signal.

The training component is critical to prevent heat illnesses, and it was important to farmworkers that both workers and supervisors receive training to reduce

1	debates about what to do in case of a heat event.						
2	While Oregon's regulations were a product of						
3	compromise, clarity in regulations favors both						
4	employees and employers. Employers know what they must						
5	do when and employees know what to expect and are						
6	better prepared.						
7	In my 24 years of representing farmworkers, I have						
8	seen the effects of miscommunication, unclear or						
9	ambiguous instructions, and vague rules.						
10	In the executive summary to the final rules						
11	adopted in Oregon, Oregon OSHA wrote, "In 2021, a						
12	deadly heat event in the Pacific Northwest set record-						
13	breaking temperatures in Oregon. On June 28th,						
14	Portland International Airport reached 116 degrees						
15	Fahrenheit, and other parts of the State were even						
16	hotter. This extreme hot weather will happen again,						
17	and it has made it necessary to enact protections to						
18	ensure the health and safety of workers."						
19	We urge you to adopt federal standards so that the						
20	health and safety of workers across the United States						
21	is considered. Thank you.						
22	JUDGE KULTGEN: Thank you. Any questions from the						



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for OSHA.

1	OSHA	panel?						
2		MR.	LEVINSON:	Yes,	Your	Honor,	Andrew	Levinson

4 First, Ms. Samples, thank you very much for your 5 We greatly appreciate it. A couple of testimony. 6 questions -- or I guess, before we get to questions. 7 OSHA, as you may have heard earlier, has a post-hearing written comment period that also does allow for post-8 9 hearing written legal briefs. So if your organization, 10 particularly as you're a law center, is interested in 11 filing either additional comments or a legal brief we'd 12 be happy to receive either or both.

> During the course of this hearing, the agency has heard a number of employer groups ask for OSHA to model its final regulation on what Nevada OSHA has done. the Oregon OSHA approach. The Nevada OSHA approach has no specifications and offers a lot more flexibility, it is much more performance-oriented.

> I heard you offer remarks in your oral testimony about the importance of providing clarity about what's required. Either now or in your post-hearing comments, your thoughts and experience on the difference between

performance-oriented and specification-oriented
requirements for worker protection would be greatly
appreciated.

MS. SAMPLES: Yes, we can do that. I will offer, and just, you know, one of the comments that I started with from a farmworker talked about having to crouch down in the shade under bushes. And I think that, you know, technically the bush would offer shade. But in reality workers having to crouch down during a break does not really offer relief. And so while it could comply technically with a requirement of shade, it does not actually offer a rest to have to crouch down.

And I think that is one of the issues when rules are -- are not specific enough or not clear enough. So the Oregon rule regarding shade does specify that people should be able to sit in a normal posture fully in the shade. And I think that is just one example of why rules do need to be specific. Otherwise, as I -- as I said, you end up with workers having to crouch down. But I can follow up in more detail.

MR. LEVINSON: Thank you. My next question relates to your written comments to the NPRM where you

1	requested that OSHA change its proposal to require
2	reacclimatization when an employee has been away from a
3	worksite for seven days instead of the 14 days as
4	currently proposed. Do you have any additional
5	evidence, either medical studies or other literature
6	that you could point us to justify a seven-day trigger
7	for reacclimatization instead of the 14-day trigger?
8	MS. SAMPLES: That is something that we'll follow
9	up with, with the post-hearing comments.
10	MR. LEVINSON: Thank you. Your Honor, the next
11	questions for this witness come from Stephen Schayer.
12	MR. SCHAYER: Yes. Hi, this is Stephen Schayer
13	from OSHA.
14	First, thank you, Ms. Samples, for your testimony
15	and for being here today. I also had a question on
16	your written comments that you submitted. In those
17	comments, you had indicated that OSHA should remove or
18	revise the scope exception for indoor sedentary
19	workers. So I was wondering if you believe that OSHA
20	should limit the indoor sedentary work exemption to
21	only activities performed below an upper temperature
22	limit, and if so if you have any suggestions for what



1	the upper limit should be, or any evidence to support
2	an upper limit like that, that would be very helpful
3	for us. And again, you could address this now or in
4	your post-hearing comments if you'd like.
5	MS. SAMPLES: We can address that in the post-
6	hearing.
7	MR. SCHAYER: Okay. Thank you very much.
8	Appreciate that.
9	MR. LEVINSON: Thank you. And Your Honor, the
10	next questions from OSHA come from Adriana Lopez.
11	MS. LOPEZ-MENENDEZ: Hello, Ms. Samples, Adriana
12	Lopez, OSHA Directorate of Standards and Guidance.
13	Thank you so much for your testimony. I have a couple
14	of questions. Oregon Law Center notes that through
15	their farmworker program and sister agency, Legal Aid
16	Services Oregon, that they have hosted several
17	listening sessions over many years. Are there any
18	summaries or reports from those listening sessions
19	besides the information that you submitted in comments,
20	that the Oregon Law Center can provide to OSHA? And
21	please feel free to send it through our post-hearing
22	comments, please.



1	MS. SAMPLES: Yes, I will some of those
2	listening sessions were attended by Oregon OSHA, and I
3	will need to see if Oregon OSHA maintains notes on
4	those.
5	MS. LOPEZ-MENENDEZ: Sure. Thank you. And then
6	can the Oregon Law Center elaborate on the types of
7	work performed in packing houses and nurseries that
8	they think would be considered sedentary under the
9	current proposed regulatory framework?
10	MS. SAMPLES: We'll include that when addressing
11	the other question regarding sedentary work sites.
12	MS. LOPEZ-MENENDEZ: Great. Thank you very much.
13	And then finally, is there a general relationship
14	between the temperature inside packing houses or
15	nurseries, and the outdoor temperature?
16	MS. SAMPLES: We can address that with post-
17	hearing comments.
18	MS. LOPEZ-MENENDEZ: Sure. Thank you very much.
19	Those are all my questions. Thank you for sharing your
20	testimony.
21	MR. LEVINSON: And Your Honor, that concludes the
22	questions from OSHA.

1	JUDGE KULTGEN: Any questions from the Solicitor's
2	Office?
3	MS. WILES: Thank you, Your Honor. Linda Wiles
4	from the Solicitor's Office. I don't have any
5	additional questions. And we would just like to thank
6	Ms. Samples for her participation in this hearing.
7	JUDGE KULTGEN: Any questions from the
8	participants?
9	MS. CARLON: There are none, Your Honor.
10	JUDGE KULTGEN: Thank you. Thank you, Ms.
11	Samples, for your testimony today.
12	MS. CARLON: (Audio interference) speaker is Helen
13	Cleary. Please state your name and affiliation for the
14	record.
15	MS. CLEARY: Hi. Good afternoon. Can you hear
16	me?
17	JUDGE KULTGEN: Yes. Yes.
18	MS. CLEARY: Okay. Thank you. Thank you. My
19	name is Helen Cleary, and I am the founder of the OSH
20	Proterie, a platform and network for occupational
21	safety and health leaders. Our members are people who
22	turn regulations into real-world protections for



workers every single day. Thank you to OSHA for your commitment and for listening so intently for these past two weeks. We want to give you today the operational safety perspective.

Imagine one solo maintenance worker in Utah out of hundreds moving from home to home on a summer day, in one house the air-conditioning is on and the next, I'm not sure, but both feel warm. He'll need to stop, take the temperature, record it, monitor and use a portable fan, and remember to check in with the heat safety coordinator every single time he enters a new location and when there's a change in process or temperature.

If they're back from a vacation in Mexico, the company may just limit the hours that they can work.

Meanwhile, a road crew in Mobile, Alabama, working eight hours in 100-degree heat faces the same checklist. We don't believe this is reasonable or necessary to protect workers and manage effective programs.

OSHA's proposal gets the exclusions and the basics, water, rest, shade and training, right. These are the foundations of effective programs and they save

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lives. But then the rule adds layers of specificity,

multiple heat coordinators, mandated break schedules,

prescriptive water requirements, detailed emergency

response, constant PPE oversight, and these elements

can't be - can't be implemented the same way for large,

or small, or mobile workforces.

Moreover, they shift the focus from reducing risk to checking boxes, making it more about paperwork and process than risk-based safety protection.

The real issue is not the temperature trigger; it's that the rule assigns the same level of risk and response to all workers in all workplaces. A low activity in a mild climate is treated the same as an eight-hour shift in a hot unventilated warehouse. For example, a delivery driver who steps in and out of air-conditioning, or an aerospace engineer working in an aircraft hangar with sliding doors would be subject to the same requirements as a crew in a hot distribution center.

And this approach does not reflect the realities of the diversity of American workplaces. It also compels employers to default to additional protections

not because it's hotter or necessary, but because it's
easier. And that's not risk-based; it's a waste of
resources, and worse, it erodes credibility of safety
programs.

Now, there are regional differences. California's heat scoring mapping tool, developed by CalEPA, scores every ZIP code for heat risk using real health data and local climate. On the same day, Anaheim felt like 82 degrees and scored a zero risk, while Palm Springs felt like 103, but it still only scored mild.

We appreciate the attempt to keep it simple, but OSHA's reliance on temperature alone makes it less about occupational safety and more about public health. Heat is a hazard that affects everyone, work, home, community. When the standard is triggered by a single environmental factor without regard to duration, workload, or actual exposure, it loses its occupational focus and it creates requirements that are not commensurate with risk.

And we're not recommending following the heat scoring map or asking for more complexity. But temperature alone doesn't tell the whole story, and it

will waste resources.

So let's look at California. California's outdoor heat rule requires the basics at 80 degrees, but high heat requirements apply at 95 degrees for specific industries, required breaks are only for agriculture.

Acclimatization is required for new employees and during heat waves, and then it's simply observation.

Now, that's more practical. And it's been working for over 20 years for California, a state that is very different than the other 49. But when California proposed a much more prescriptive standard for indoor work, despite employers expressing concerns about necessity and cost, for years, I was there, it was the State itself who hit the wall.

The Department of Finance estimated that it would cost billions to implement in prisons, and the rule was stopped in the final hours. Prisons were ultimately excluded. A separate regulation is now being drafted for them. And if California can't make a blanket approach right, and work, how can we expect every employer in the country to do it?

So here is what we're asking for. Let's keep the

1	basics: Water, rest, shade, training, and emergency
2	response, but put the how in guidance. Give employers
3	the flexibility to build programs that fit their unique
4	environments and allow them to maintain what's already
5	effective. Focus on outcomes, not just checklists.
6	And I'll leave you with this. We're not here to
7	say no. We're here to say let's get this right,
8	together, OSHA has an extraordinary opportunity to
9	draft a simple standard that many in industry would get
10	behind, one that truly protects workers and uses our
11	limited resources where they matter most.
12	Thank you for your time, your attention, and your
13	commitment to worker health and safety.
14	JUDGE KULTGEN: Thank you. Any questions from the
15	panel?
16	MR. LEVINSON: Yes, Your Honor, Andrew Levinson,
17	for OSHA.
18	Thank you, Ms. Cleary, for your testimony. One of the
19	things that you've touched on is very similar to a
20	point that we've heard throughout the hearing about the
21	need for performance-oriented standards and not
22	specifications. The challenge that OSHA has been



1	wrestling with in this regard is, while one might say
2	that responsible employers or high road employers can
3	be trusted to use, perform a risk assessment and arrive
4	at the right outcomes, there are also plenty of
5	employers might disregard risk assessment or not
6	adequately perform it, and workers would be left
7	without adequate protections. How should OSHA strike a
8	balance between these two scenarios and do something
9	that offers employers the flexibility that you're
10	saying they need, while also offering workers the
11	guarantees that they're going to get adequate
12	protection that they're saying they need? And the -
13	MS. CLEARY: Yeah, and just a yeah.
14	(Audio malfunction.)
15	MR. LEVINSON: And just either we're happy
16	to hear that now or in the post-hearing written
17	comments, that you may have.
18	MS. CLEARY: Yeah. Thank you, Mr. Levinson.
19	We've been thinking about this a lot. And you know,
20	we've participated in the California process for many
21	years, and it's important to strike the balance. And I
22	appreciate that that's what OSHA is trying to do. And

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it is a huge challenge.

And we think there's a way that some of the elements can be more prescriptive and give some basic requirements. But guidance is so important, especially for small employers or people that don't have extensive safety teams that they can reflect back to, and it's something California has done well also. And they've they have model programs. They have specific guidance. There's a heat campaign that communicates what those elements are.

11 And a big part of this puzzle is enforcement. 12 if OSHA can focus on enforcement, and the communication, and the education from that lens, I 13 14 think that makes up some of the gap for any of the 15 open-ended elements. But again, we've been speaking a 16 lot about what specifics can be included and where does 17 it go over the line. And that's, you know, some of the 18 things I pointed out to was, the heat safety 19 coordinator and the PPE, you know, it says that the 20 employer must ensure the PPE is functional or working 21 at all times.

Well, if you have a mobile worker in the field



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who's wearing something very effective, maybe just a scarf that you get wet. The employer -- it's the employee that's going to need to keep it wet to maintain. And will the employer be cited for not maintaining that PPE, and if so they may not offer it.

So those are the types of specifics that we think can be dialed back but give some basic guidelines. And so we're working on comments that will outline some of those. And you know, I have copies of the fed OSHA rule, the Cal/OSHA heat rule, the Oregon rule, the Nevada rule, and trying to piece together, you know, what can we pull from each of them, because every region has done something I think that's good, and that works. And then there's some that goes over the line.

And so you know, we'll work on something for you because, you know, we will acknowledge that this -- the patchwork approach, you know, that you've heard said over the two and a half or three weeks, that is a challenge too. And you know it's -- there is an opportunity for fed OSHA to develop something that pushes employers in the right direction, and then kind of lets them go and figure it out. So we'll get you

1 more detail on that. 2 MR. LEVINSON: Thank you. And again, this is 3 Andrew Levinson for OSHA. Another question that we would --4 5 (Audio malfunction.) 6 JUDGE KULTGEN: One second. Let me ask a 7 question. Ms. Cleary, can you mute your microphone while the questions are being asked? We're getting a 8 9 really bad echo. 10 MS. CLEARY: I'm sorry. Yeah. Is that better? 11 JUDGE KULTGEN: Yes. You may proceed with the 12 question. 13 MR. LEVINSON: Thank you, Your Honor. 14 Levinson for OSHA. So I don't know the composition of 15 the membership of your network or organization. 16 Another thing that --17 MS. CLEARY: Okay. I'm not really hearing you. 18 MR. LEVINSON: -- we're really curious about is 19 you talked about the --20 (Audio malfunction.) 21 JUDGE KULTGEN: Hold on one moment, Mr. Levinson. 22 I'm not sure --

1 MS. CLEARY: I'm not hearing him. 2 JUDGE KULTGEN: Can you hear, Ms. Cleary? she said she can't hear us. 3 4 Is that better? MS. CLEARY: 5 JUDGE KULTGEN: Yes, we can hear you. 6 hear us? 7 MS. CLEARY: Okay. Yes, I turned it down very low, so hopefully there won't be feedback. 8 9 JUDGE KULTGEN: Okay. Yeah, that's much better. 10 You may proceed with the question. 11 Thank you, Your Honor. MR. LEVINSON: 12 Levinson for OSHA; I'm going to start at the -- at the beginning of the question. 13 14 Ms. Cleary, we don't know the nature of the 15 network members that you have, but you mentioned risk 16 assessments and the ability of employers to tailor what 17 they're doing to their needs and their work 18 environment. If you have thoughts on the ability of 19 small employers, particularly those that don't have the 20 full-time safety professionals on staff to adequately 21 perform risk assessment and make decisions around 22 safety, we would love to know your thoughts and

1 experience on that, again, either now or in the post-2 hearing comments. 3 MS. CLEARY: Yes. Yes. I think one thing, and I 4 mentioned this earlier is, you know, California 5 doesn't -- does model programs that creates that 6 checklist for you, or gives you, you know, risk 7 assessment on what you should do and what to go through. And so if there's some -- there's opportunity 8 9 there. And then, you know, we'll examine it further of 10 how instruction on risk assessment can be done. 11 Because you're absolutely right. There are going 12 to be small employers that need that extra support to say, just tell me what to follow. And if there's a 13 14 quideline and simple checklist, we think that could be 15 effective too. 16 Thank you. Your Honor, the next MR. LEVINSON: 17 questions from OSHA will come from Adriana Lopez. 18 MS. LOPEZ-MENENDEZ: Hello, Ms. Cleary. Adriana 19 Lopez, OSHA Directorate of Standards and Guidance. 20 Thank you for your testimony. In your experience, what 21 are the most common methods that employers are already 22 using to prepare for and respond to severe heat



1	emergencies, for example, heat stroke?
2	MS. CLEARY: For heat emergencies?
3	MS. LOPEZ-MENENDEZ: Yes, for example, for heat
4	stroke (audio malfunction) experiencing.
5	MS. CLEARY: Let's see. I think maybe for heat
6	waves, you know, one thing that employers do is the
7	timing of training and reminders aligns with the
8	seasons, so they know when the hot season is coming.
9	And they, you know, gear up and get their workforces
10	ready. It's a big part of communication, and training,
11	and educating employees on what they need to do to
12	remain protected.
13	You know, it happens during specific seasons, you
14	know harvesting seasons, you know, people know when
15	it's going to be hot. And so part of it is the
16	community effort between working with the employers,
17	working with the state, working with Cal/OSHA.
18	Cal/OSHA does a great communication campaign. Like I
19	said, it started, I think, in May.
20	And so everybody is gearing up at the same time to
21	address these hazards, aligned with the enforcement
22	programs, you know, that are out there. But I'll ask

1	for more specifics on what they actually do. But I
2	think a big part of it is education and communication.
3	MS. LOPEZ-MENENDEZ: Thank you. Yeah. Sorry, I
4	guess you're misunderstanding me, I think. I meant for
5	a worker who had (audio malfunction) for example?
6	MS. CLEARY: What happens when they have heat
7	stroke?
8	MS. LOPEZ-MENENDEZ: What are employers doing to
9	prepare and respond to these emergencies?
10	MS. CLEARY: Prepare and respond to emergencies.
11	Well, they do have emergency plans in place. So if
12	somebody is ill, and they do observe the workers, and
13	you know, one thing in California, one of the
14	requirements in California for acclimatization and
15	during high heat conditions and yeah, high heat
16	sorry like I'm blanking on the word heat waves,
17	I'm sorry, heat waves, during heat waves, they are
18	prepared to support the workers with emergency response
19	plan, and medical first aid.
20	So those things are set up. And that's part of
21	the emergency response plan in general, but they know
22	the hazard is going to be higher during those heat

1	waves. And so they're prepared to you know, they
2	communicate, they do have some buddy systems for those
3	solo workers or they, you know, when they're new, they
4	come in, they have buddy systems.
5	That's part of initial training as well. So you
6	bring someone in and you have a buddy that goes out,
7	and doesn't just focus on heat, but focuses on all the
8	things that you have to do when you start a new job.
9	MS. LOPEZ-MENENDEZ: We would be interested in
10	knowing about the buddy system as well.
11	MS. CLEARY: I'm sorry?
12	MS. LOPEZ-MENENDEZ: That's okay. We would be
13	interested if you could expand on the buddy system.
14	MS. CLEARY: Yes.
15	MS. LOPEZ-MENENDEZ: Thank you. Those are all my
16	questions. Thank you.
17	MR. LEVINSON: Your Honor, that concludes
18	questions from OSHA.
19	JUDGE KULTGEN: Any questions from the Solicitor?
20	MS. WILES: Thank you, Your Honor. Linda Wiles
21	from the Solicitor's Office. I don't have any
22	additional questions. Thank you for your participation



1	today.
2	JUDGE KULTGEN: And any questions from
3	participants?
4	MS. CARLON: There are none, Your Honor.
5	JUDGE KULTGEN: Thank you. Thank you for your
6	testimony today.
7	MS. CLEARY: Thank you. Thank you for all your
8	efforts these last two, three weeks. I understand how
9	grueling it probably feels. Thank you.
10	MS. CARLON: Your Honor, we wanted to ask if we
11	could recall the last witness, Sonya Owens. It looks
12	like she's back online.
13	JUDGE KULTGEN: Yes, that would be great.
14	MS. CARLON: Did you want her to restart or to
15	continue from slide 14, where she was in her testimony?
16	JUDGE KULTGEN: I'm going to turn that question to
17	the OSHA panel. Do you want her to restart from the
18	beginning?
19	MR. LEVINSON: Your Honor, I think we're happy to
20	leave it up to Ms. Owens if she felt like she would
21	like to start from the beginning. We want to make sure
22	she gets a chance to feel like she's fully heard, if



1 she'd like to pick up where she left off. We're also 2 happy to do that. 3 JUDGE KULTGEN: I think in reading the transcript, 4 it might be helpful to have all the testimony in one 5 place. But I will leave it up to Ms. Owens. 6 You may proceed with your testimony, ma'am. MS. OWENS: 7 Well, before I start, I'd like to make 8 sure that everyone can hear me. 9 JUDGE KULTGEN: Yes. 10 MS. OWENS: Wonderful. Your Honor, I'll take your 11 guidance, and we can just pause right here or start at 12 the beginning. I think that would be helpful for the 13 transcript. 14 As has already been stated, my name is Sonya 15 Owens, and I'm the Founder of the startup Cleanwerks. 16 As a specialty contractor we do safety planning and 17 training. As part of my background is I'm a commercial 18 electrician by trade, and OSHA 500 trainer, as well as 19 being a safety consultant and project manager, and a 20 member of the American Bar Association. 21 If we could move to slide five, please: 22 recommend no mandate because there are a lot of

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1 problems from start to end, and we don't believe that 2 it will achieve OSHA's goals to the saturation that it 3 The proposed rule is very similar to an 4 earlier one for weekly COVID-19 testing. That mandate 5 resulted in a litigation lawsuit from the National 6 Federation of Independent Businesses. 7 The Court decided that the statutes do not authorize the Department of Labor or OSHA to issue 8 9

authorize the Department of Labor or OSHA to issue mandates. It also said that COVID-19 is not an occupational hazard, and that OSHA only regulates and enforces occupational hazards. The gist is the heat in this mandate must be generated from the work itself. It's not climatic, and that precedence, court case, creates a stumbling obstacle to this mandate.

Slide nine please: Temporary methods of relief, not scientifically proven to be reliable or predictable as a preventative is a basket full of liability.

Next slide please: There will never be enough laws, rules, or training to overcome or stop human nature. A good example is that the Good Samaritan Law says, I tried to help; but contributory negligence says, but you made it worse.

1	Slide 13 please: Pre-existing illnesses and
2	injuries can become work induced, and work induced can
3	become pre-existing.
4	Next slide: We looked at the 2021 Business Census
5	and found that 49 percent of businesses have four or
6	less employees, and we converted those numbers into
7	OSHA's numbers.
8	Next slide please: OSHA's goal is not to impact
9	only one-third of all businesses with this mandate.
10	Slide 19: Our recommendation is a framework of
11	best practices, not just for heat, but for extreme
12	working conditions.
13	Slide 21: OSHA did this in 2016, so it doesn't
14	have to reinvent the wheel; just replace the tires for
15	better traction.
16	Next slide: OSHA's SHARP Program in 2011 reduced
17	litigation by 52 percent, lost work hours by 87
18	percent, and an overall decrease in claims, 88 percent
19	reduction.
20	Next slide: It determined that one size does not
21	fit all, and that indirect costs can add as much as
22	three times the direct cost to the total cost. So the



1 projected cost of a break at \$42 now becomes \$155 and \$79,000 for 1,900 workers spread out among 2 3 subcontractors in a medium-sized construction project 4 now becomes \$294,000 per break. Slide 25 please: Let's talk about new tires. 5 6 Let's change the trigger from temperature, which can be 7 confusing to public safety alerts. It's already active. 8 9 Next slide: It populates on Google, Apple, and 10 Waze maps, desktops, all mobile devices, and it updates 11 through these devices every 15 minutes. Next slide: 12 The National Weather Service produces 13 a weather app, Weather.gov, that provides a ten-day 14 projection of temperatures, and if you click on any 15 day, you would see hourly temperatures and 16 precipitation for the next 24 hours. This is all I 17 need to change work hours, days off, job assignments, 18 production, and timelines. And I can tell you it's 19 very accurate because I use this app every day to walk 20 my dog. No complaints. 21 Next slide: In the private sector, all 50 states 22 are at-will employment. It's not going to change with

1 One of the things that we've looked at as the mandate. 2 part of our innovation is simplify reporting and recordkeeping for really small subcontractors or 3 4 family-owned businesses. It's worked really well. 5 OSHA's safety compliance regulations and the 6 requirements that we look for becomes part of the 7 safety terms and conditions to get the contract, to be even considered for the contract, that's worked very, 8 9 very well. 10 Next slide: In the public sector, it's more of a 11 protected employment environment and listening to much 12 of the comments that have been made in these -- in 13 these hearings, we're thinking about how effective it 14 would be if OSHA issued a mandate for a code of ethics 15 to regulate behavior, much similar to what the American 16 Bar Association has. 17 Next slide: Comprehensive safety training for 18 safety officers. It's just one of the suggestions that 19 we have for higher standards refresher courses. 20 Supervisory authority on site doesn't make much sense 21 to be able to detect a safety hazard and not have the 22 authority to tell a worker to stop, to adjust, or any



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1 sort of changes.

We'd like OSHA to consider an enhanced

whistleblower program, where OSHA trainers and safety

officers, if they report a violation to OSHA, that

it's -- it becomes a priority in terms of response or

investigation from OSHA, because now you have a witness

who is trained in OSHA regulations that's reporting

this to the Agency to follow up on.

We'd like to see job descriptions and daily tasks for safety officers. In our projects our safety officers get a playbook that tells them who is doing what, where, about all the workers on site, and also deliveries. It gives them an idea of what safety issues to expect and to detect.

Slide 32, please: SHREWS is a terminology that we use in our training, it stands for sudden health risks effects, affecting workers simultaneously. These are massive risks affecting large amounts of workers, such as pandemics, or severe weather, and various disasters.

Next slide: In 44 years, there has been 403 confirmed weather-related disasters costing over \$1 billion each, more than half of them are severe storms.

1	There's a 67 percent chance of severe storms and
2	cyclones happening. And in the last five years,
3	there's been an average of 23 disasters per year.
4	Slide 36, please. Our FROG, which is our First
5	Responders Operations Guide, jumps on SHREWS.
6	Next slide: Our safety practices become early
7	pre-disaster preparedness, and early pre-disaster is
8	not redundant with pre-disaster. Pre-disaster planning
9	is for the known; early pre-disaster planning is for
10	the unknown.
11	Slide 39, please. Under OSHA's Best Practices
12	Guidance, which has begun as an agency invested program
13	since at least 2016, looking as far back as 2011,
14	right, its voluntary practices is proactive, quickly
15	adapts and adopts, incorporates pre-planning and early
16	prep planning, and it also tames the SHREWs.
17	Next slide: Thank you. I'm available for
18	questions.
19	JUDGE KULTGEN: Thank you. Any questions from the
20	OSHA panel?
21	MR. LEVINSON: Your Honor, OSHA does not have any
22	questions, but I did want to thank Ms. Owens for her

1	testimony. And I did want to point out OSHA has a
2	post-hearing, written comment period, and a post-
3	hearing legal brief period. They're the same time.
4	And since you're a lawyer and a number of the points
5	that you raised in your testimony are legal in nature,
6	I just wanted to make sure that you were aware that
7	that we will be accepting post-hearing legal briefs if
8	you would like to file one.
9	That concludes OSHA's OSHA at this time, Your
10	Honor.
11	JUDGE KULTGEN: Thank you. Any questions from the
12	Office of the Solicitor?
13	MS. WILES: Thank you, Your Honor. Linda Wiles
14	from the Solicitor's Office. I don't have questions,
15	but I would like to mark the PowerPoint that Ms. Owens
16	displayed during her presentation as Exhibit No. 17,
17	and ask that it be entered into the hearing record.
18	JUDGE KULTGEN: I will admit Exhibit 17, the
19	PowerPoint that Ms. Owens presented.
20	MS. WILES: Thank you, Your Honor.
21	And thank you so much, Ms. Owens, for your time
22	and participation today.

1 MS. OWENS: You're welcome. 2 JUDGE KULTGEN: Do we have any questions from the 3 participants? 4 MS. CARLON: There are none, Your Honor. 5 Thank you. Thank you, Ms. Owens, JUDGE KULTGEN: 6 for your testimony today. 7 MS. OWENS: Thank you, everyone. 8 MS. CARLON: The next -- oh. Sorry. 9 JUDGE KULTGEN: Before we call the next witness, 10 can we take a ten-minute break? 11 No problems from OSHA, Your Honor. MR. LEVINSON: 12 JUDGE KULTGEN: Ms. Carlon, Mariam? 13 MS. CARLON: No problem. Yes. 14 JUDGE KULTGEN: Okay. Let's take a ten-minute 15 According to my clock, that would be until 2:20 16 p.m. Eastern Time. 17 (Break.) 18 JUDGE KULTGEN: I think we can proceed. 19 MS. CARLON: Great. The next speaker is Marc 20 Futernick. Please state your name and affiliation for 21 the record. 22 DR. FUTERNICK: Hello. I'm Dr. Marc Futernick, an

1	emergency physician, I'm joining from Pasadena,
2	California. I represent the Medical Society Consortium
3	on Climate and Health, with over 50 medical societies,
4	including my own the American College of Emergency
5	Physicians. I also serve as the managing editor
6	(Audio malfunction.)
7	JUDGE KULTGEN: Dr. Futernick, your voice is
8	fading in and out. I'm not sure if the court reporter
9	is able to get everything you're saying. Is there a
10	way to get a better signal?
11	DR. FUTERNICK: Yeah. Is it the signal, you
12	think, or the microphone?
13	MS. CARLON: Yeah, it sounds like it's the signal.
14	DR. FUTERNICK: Okay.
15	MS. CARLON: It sounds like you're breaking up.
16	It sounds a little more like your connectivity. If you
17	have headphones by you, I would absolutely recommend
18	you maybe put those on. If not, I can work with you to
19	switch over to calling in instead.
20	DR. FUTERNICK: What I can do is switch to a
21	different Wi-Fi, which I think will have a better
22	connection.



1 MS. CARLON: Okay. 2 DR. FUTERNICK: And let me pop -- pop back in. 3 MS. CARLON: Okay. No problem. 4 DR. FUTERNICK: I'll try that now. 5 JUDGE KULTGEN: Thank you. 6 DR. FUTERNICK: Can you hear me now? 7 JUDGE KULTGEN: Yes. 8 Is that better? DR. FUTERNICK: 9 MS. CARLON: Much better. Is that better, Judge? 10 JUDGE KULTGEN: Much better. 11 MS. CARLON: Okay. 12 Thank you. JUDGE KULTGEN: 13 DR. FUTERNICK: Terrific. Maybe I'll take it from 14 the top. So my name is Marc Futernick, I'm an 15 emergency physician. I'm joining from Pasadena, 16 California. I represent the Medical Society Consortium 17 on Climate and Health, which represents over 50 medical 18 societies, including the AMA, and my own, the American 19 College of Emergency Physicians. 20 I serve as the Managing Editor of the Journal of 21 the Climate Change and Health, so I'm familiar with the 22 scientific literature on this topic. I thank you for

the opportunity to provide comments. We very much support the proposed rule and recommend further strengthening to fully protect our workforce from acute heat illness, as well as chronic health impacts of heat exposure.

It has already gotten much hotter with many more extremely hot days, whether defined by pure temperature or standard deviations from the normal. This trend will continue and very likely will increase in trajectory. The outdoor and indoor workforce is more regularly being exposed to dangerous conditions that were rare just a few decades ago, and they are already suffering the heat — the heat health impacts.

Some real life examples that we encounter regularly in the emergency department include roofers who pass out in dangerous situations, pregnant women who faint or miscarry working in hot warehouses, and tragically, outdoor laborers such as farmworkers with end-stage kidney failure from chronic dehydration and heat exposure, will be on dialysis for the remainder of their shortened lives.

We focus a lot on acute heat stroke, but it's



1	important to know that both chronic and acute extreme
2	heat exposure damages every organ in our body, and
3	leads to severe health consequences that we don't
4	naturally associate with the increasing temperatures.
5	When it is extremely hot, more people die. More people
б	have heart attacks and strokes, two of the top three
7	causes of death. More babies are born premature with a
8	lifetime of health impacts. More people shoot and stab
9	each other when it's hot out. More people die by
10	suicide, along with an increase in many other
11	psychiatric symptoms.
12	We don't think as well as we normally do, both in
13	the moment and as a result of chronic exposure to
14	extreme heat.
15	Sometimes we talk about groups that are at higher
16	risk than average, and people assume that these are
17	small pockets, but they are not. When grouped
18	together, many workplaces will have a majority of their
19	workforce in a high-risk category.
20	So these include older workers, pregnant workers,
21	those on medications for blood pressure, or allergies,
22	or mental health, or many other conditions, those who

work in the heat intermittently so they don't fully acclimate. Those who wear heavy or dark uniforms, or carry equipment, and workers with pre-existing conditions like asthma, kidney disease, diabetes, very common conditions. This amounts to most of us who are at risk for severe heat illness.

OSHA's mission is to keep America's workforce safe and healthy. This will also make our economy more productive and resilient. We know how to prevent heat-related deaths at work. It's time to end workers dying of heat exposure, as well as the chronic illness from long-term exposure to extreme heat without adequate safeguards, such as water, shade, and rest.

I'd also like to respond to a few of the specific questions posed by OSHA. So onsite wet bulb globe temperatures provide a better indication of physiologic stress than other measures that have been discussed. Heat index is an excellent surrogate in the shade, but for workers exposed to direct sunlight, something like wet bulb globe thermometers would be better at predicting health harms.

Based on research on heat-related deaths that have

occurred, requiring monitoring and implementation of protective plans at a heat index of 80 degrees makes the most sense if we're to realize the opportunity to prevent worker deaths, the most severe outcome.

We have strong data that indicates rare temperatures are dangerous, even in moderate ranges, and temperature climates -- I'm sorry -- and temperate climates have endured some of the most lethal heat waves due to lack of acclimatization. So think about the Pacific Northwest heat dome that was just mentioned, Montreal, Tokyo, places like that that have had large numbers of deaths.

Using the percentile for temperature, such as 85th percentile, or 90th percentile for that region, is likely better than one specific value for the entire country.

Clothing modification can be impactful, so would be a reasonable option in a monitored plan if it was implemented between those thresholds for high heat versus dangerous heat. And that could include changes in color, fabric, limiting the additional equipment carried; so there are modifications that would be

1	reasonable.
2	Real-world experience demonstrates the
3	effectiveness of common-sense solutions such as water
4	availability, shaded rest breaks, and employee and
5	supervisor education in preventing fatalities. It's
6	likely we need to push farther to prevent the
7	repetitive damage borne by outside workers that leads
8	to chronic kidney, cardiovascular, and neurologic
9	illness.
10	Research and experience demonstrate that
11	acclimatization is an essential component of any
12	effective plan. The first week of outdoor work is the
13	most dangerous and should be managed carefully.
14	Thank you for your consideration of our input.
15	Please implement a strong rule that protects the health
16	of our workforce, which will optimize the productivity
17	and resilience of our economy overall. Thank you.
18	JUDGE KULTGEN: Thank you. Any questions from the
19	OSHA panel?
20	MR. LEVINSON: Yes, Your Honor. Andrew Levinson
21	for OSHA. First of all, Dr. Futernick, thank you very
22	much for your testimony. We, in addition to having the



1	opportunity to respond now, OSHA also will be accepting
2	post-hearing written comments. So if you'd like to
3	expand upon your thoughts in the post-hearing written
4	comments, we would also be happy to to receive
5	those.
6	I want to hone in on, you proposed, I think it was
7	85 percent of the average temperature as a potential
8	heat trigger that you think would be better than an 80-
9	degree heat index. Is that correct? And do you think
10	that one trigger is sufficient, and do you have any
11	literature to support that approach over other
12	approaches?
13	DR. FUTERNICK: I would say our organization is
14	not officially promoting that approach. I wanted to
15	share that philosophy. We can share some more
16	information about the impact that would take. I do
17	think some of these approaches may need to be
18	localized. I think having a strong baseline that we

But I could see how there could be temperatures
below that that reach these thresholds of 90 or 95

of 80.

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know protects everyone makes sense, so that heat index

1	percentile for that area, that would also be dangerous
2	for the workers that wouldn't be caught by that. And
3	so we would propose that we use good science to
4	establish some of those other safeguards as well.
5	MR. LEVINSON: Thank you. And anything you can
6	expand in post-hearing comments, we'd be happy to
7	receive. I want to also go back to your point about
8	the importance of acclimatization, and carefully
9	managing, I think, was the word that you phrased, that
10	first week of work. Any thoughts that you have on
11	acclimatization, and when that period of
12	acclimatization should occur, is it really just when
13	you hit that 85 percent threshold or first week above
14	80 degrees?
15	And any thoughts that you have on people who
16	return to work, for example, after a vacation if
17	acclimatization or reacclimatization should happen?
18	We'd be happy to hear the thoughts of the various
19	medical groups that that you represent.
20	DR. FUTERNICK: Thank you. It's not an extremely
21	well-studied or understood physiologic concept in terms
22	of those kind of details. I thought that question

1	earlier was quite interesting. Is it a week off, or
2	two weeks off? We know that it takes a full three
3	weeks or more to acclimate fully. We will we will
4	search for some more hard data to share with you that
5	may guide these decisions about the length of time
6	being away.
7	I wouldn't I wouldn't feel qualified to say a
8	week versus two weeks, but three weeks I think would
9	certainly be enough that someone should be
10	reacclimated.
11	MR. LEVINSON: Thank you. And Your Honor, that's
12	all for questions from OSHA.
13	JUDGE KULTGEN: Any questions from the Solicitor's
14	Office?
15	MS. WILES: Thank you, Your Honor. Linda Wiles
16	from the Solicitor's Office. I don't have any
17	additional questions, but thank you, Dr. Futernick, for
18	being a part of the hearing today.
19	JUDGE KULTGEN: Any questions from the
20	participants?
21	MS. CARLON: There are none, Your Honor.
22	JUDGE KULTGEN: Thank you. And thank you, Dr.



1	Futernick, for your testimony.
2	DR. FUTERNICK: Thank you.
3	MS. CARLON: The next speaker group is the Society
4	of Chemical Manufacturers and Affiliates, represented
5	by Sedra Beckman and Robert Helminiak.
6	Please state your name and affiliation for the
7	record as you both move throughout your testimony.
8	MS. BECKMAN: Robbie, would you like to go first?
9	MR. HELMINIAK: Sure. There we go.
10	Hi, everybody. I'm Robert Helminiak with the
11	Society of Chemical Manufacturers and Affiliates,
12	SOCMA. We're the specialty chemical industry. And
13	I'll give you a tiny bit of background, and I will give
14	you a little bit of our high-level input before I turn
15	it over to my colleague, Sedra Beckman, to give you a
16	little bit more detail on some more on-the-ground
17	examples.
18	So we're the specialty chemical industry. I'm
19	sure many of you know specialty chemical industry, but
20	just to make sure. We're not, you know, the orange
21	barrel that rolls off the line 24 hours a day. We are
22	actually what we call, small-volume, high-value

1 products.

A really simple way of thinking of it is, you know, you can take something that we manufacture and pour it into one of those orange drums and then the end product, whatever that might be, maybe a consumer good, has a certain quality to it. So for example, it could be, you know, make something more dent resistant, or it could make something reflect, you know, UV light, or it could make something harden under UV light.

We make products, we make a lot of, you know,

APIs, the active pharmaceutical ingredients, we make a

lot of products that go into the semiconductor space.

We make a lot of products that go into the agriculture

space. Another thing that's really important to note

for this industry is that we are not continuous process

manufacturers. And most regulations are really written

with that, with continuous process in mind.

We're batch manufacturers. And what that really means is, you know, we will bring in raw materials and inputs. We will, you know, go through the manufacturing process and produce our chemical for maybe an hour, maybe a week, a month, a year, whatever

it would be, but then we bring in new inputs. We might actually retweak the equipment itself, meaning we can bring in, you know, adding a knockout pot, or changing a distillation tower, or something, and manufacture something entirely different.

So our facilities are a little bit fluid in that sense, because we don't just make the same thing every single day, you know, all the time. And that -- that creates some challenges just for general regulatory compliance, because as I said, regulations are usually written for continuous process facilities.

Now, I'll note that safety is the top priority of SOCMA, and we reflect our members' facilities and their views in that -- in that note. We have a number of programs like ChemStewards, which is a continuous improvement program. We also have -- we offer safety training for members as well. And our members actually have, you know, robust heat safety practices already in place regardless of federal law, state law, state regulations, any of that, they already have this all in place because safety is such a top priority.

What we should keep in mind related to heat

illness is that this is really -- these are targeted issues, these are not systemic failures when we're seeing challenges here. And we'd recommend that OSHA keep that in mind as they're moving -- moving forward with the development of this rule, whether we move to a final rule, or whatever the next step might be.

Minimally, SOCMA's recommendation is that OSHA make several changes, because there are a lot of unintended consequences, and frankly, there's not enough flexibility in this rule. You know, one of the significant unintended consequences is this is -- this creates significant resource -- this is going to take significant resources, and SOCMA members are primarily small-medium-sized businesses.

And the mandates that are included here that lead to those -- that resource consumption, those are resources that would probably be better used by the -- by the companies for -- to promote worker safety in other areas where they can control it and would have a better positive overall effect.

I'm just going to mention a couple of areas that are a real challenge before I turn it over to Sedra.

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You know, one of the things that I recommend for every rule for every federal agency is avoid duplication. We don't need redundant regulations, and we certainly don't need regulations that will potentially conflict.

We also need to -- in this -- for this rule, as I said, this rule is frankly too prescriptive. We need a lot more flexibility.

You know, some of the requirements in the rule require PPE, but it's PPE that might be a problem in a chemical facility, or there are requirements for safe venting, or fans, and they might not be allowed to be near, you know, some type of hazardous material that we have in the facility. So there are some regulatory inconsistencies that could be a challenge. And if this rule is very prescriptive, it's going to cause a significant conflict.

As a number of other speakers have said, we strongly recommend using flexible heat triggers instead of just a flat rate for the entire country, different regions are different. They just -- there should be a much more regional, flexible approach. As I mentioned, you know, some of the PPE requirements may conflict

with other requirements for other regulations related to hazardous materials and facilities.

You know, one of the other issues is just the paperwork issue, and that's perpetually an issue for SOCMA members. This is -- the recordkeeping requirements here, you know, extend to things like first aid, and that aren't even required in other OSHA regulations. And it's really just -- it creates -- it creates additional burden that really doesn't have a significant benefit to this rule.

You know, before I turn it over to Sedra, I'll mention, you know, the top priorities, the things that OSHA has to keep in mind as a -- finalizing this rule is it has to be a practical rule. It has to be flexible; it has to be a flexible rule, both in the application of any safety measures, as well as the assessment of when to apply those safety measures, meaning the heating -- the heating degree days, or temperatures, or climate zones, whatever.

SOCMA would strongly urge OSHA to review this rule, and really take a step back and make sure to apply that flexibility.



1	But with that, let me turn it over to Sedra.
2	MS. BECKMAN: Thank you. Robbie.
3	My name is Sedra Beckman. I'm the Health, Safety
4	and Environmental Manager for CJB Industries, Inc. in
5	Valdosta, Georgia.
6	CJB is a small, family-owned specialty chemical
7	manufacturer, like Robbie talked about. In South
8	Georgia, we have a climate that is humid subtropical.
9	Our daily temperatures rise to greater than 80 degrees
10	in April and stay above 80 degrees until October,
11	sometimes November.
12	Our business model is a total chemical
13	manufacturer. Not just a batch, but a total. So we
14	don't make anything for ourselves. We make it for
15	other companies. They send us their recipes, they send
16	us their chemicals, they send us their packaging, they
17	even send their vehicles to us to pick up their
18	materials. So we've got to be flexible on our
19	equipment, our processes, and most of all, our people.
20	So I'm also the chair of SOCMA's Health and Safety
21	Committee. And like Robbie had mentioned, we don't
22	support the rule in the way it is written. So this

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1 rule would unfairly burden companies in regions like ours where the hot weather is ambient. 2 It's part of 3 our daily life. Companies that use temporary labor to 4 fill in for full-time employees would not be able to 5 use that temporary labor anymore, so if we had an 6 employer with five call outs today, we would not be 7 able to bring in five temporary employees to fill that 8 gap.

So we would actually be at a disadvantage as far as having to train those temporary employees and get them in slowly through the acclimatization process, and not be able to have them work on the floor, even though they live and work in this environment on a daily basis.

And so we strongly urge looking at the acclimatization period and the acclimatization schedule. As our employees work in this environment, we do change our schedules and we do update -- like Robbie said safety is a huge priority for us. So we start in April, we give training, we make sure that our employees understand the heat. The first thing we do, our April training as a group is, we talk about what

1	heat stress is, we talk about medical emergencies. We
2	weave heat stress first aid into several other
3	trainings. It's part of our weekly reminders that go
4	out. It's part of the life here.
5	We also would disagree with the idea of recording
6	the heat-related injuries or illnesses that don't meet
7	the requirement outlined in 29 CFR 1904, requiring
8	documentation of cases that are first aid would be
9	unnecessary and could create confusion with the
10	recordkeeping process. The current rule clearly states
11	that such cases are not recordable, and this proposal
12	would conflict with that intent.
13	We also believe that there are two effective
14	measures currently in place that could be applied to
15	companies that tend to be bad actors, that don't think
16	about their employees, that don't put these in place,
17	that would be the General Duty Clause and the National
18	Emphasis Programs on heat.
19	Thank you for your time today.
20	JUDGE KULTGEN: Thank you. Any questions from the
21	OSHA panel?

MR. LEVINSON: Yes, Your Honor. Andrew Levinson

1 for OSHA.

First of all, thank you both very much for your testimony today. And I guess my -- we've heard from many stakeholders that they would like a final reg that is much more flexible, and/or performance-oriented.

And what we're wrestling with is the tension between how do we provide significantly more flexibility, while at the same time assuring certain minimum protections for workers. And -- and let me give you a hypothetical.

If we simply said, provide workers with water, and an employer provided an eight-ounce bottle of water to a worker for an entire day when it was 100 degrees out, would that be adequate or not? And how would employers know that it was not adequate? And how would OSHA enforce that scenario?

And so there are two sides of that coin and the flexibility, of how do we make sure that the flexibility doesn't turn into, effectively, no protection. And any thoughts that you have now, or in post-hearing comments would be very welcome.

MR. HELMINIAK: Sure, Andrew, we will certainly be



happy to address that in follow-up comments. I'll work with Sedra and our Health and Safety Committee. But number one, what I would say is, employers should know what is adequate in these situations. And it should -- and the employer should have the flexibility to be able to accommodate workers in different ways. Like that universal approach doesn't necessarily work. Maybe a regional approach does work, but the more prescriptive it gets, the more likely you are to -- the more likely you are to like sort of fence people in and prevent people from taking other actions that might actually be even better.

So what I would say is, a minimum threshold might be a good idea. But being too prescriptive actually prevents the company from thinking, and taking action, and developing their own plans. I mean, you guys know how it works with, for example, you know, PSM, you know, you come up with an overarching plan for your own facility that works for you.

That's -- like I said, that flexible approach is going to be the most effective approach. And of course, at the end of the day, as I mentioned at the --

at the outset, there are only -- there are not a lot of
these, you know, heat illness issues that arise. And
frequently it is likely due to someone not following
the rules anyway, meaning it's not that they didn't
know. It's not that they didn't know what they should
do; it's that they opted, basically, to not.

And that's what we would encourage OSHA to look more at. Look more at actual enforcement, and make sure that we're focusing on people that are not meeting, you know, basic criteria that they should -- that they know that they should be meeting, instead of broadening out rules for people that are already -- for companies that are already in a good place, that are already following the rules, that are already good actors, that have a lot of these programs voluntarily in place.

MR. LEVINSON: Thank you. My next question relates to something that Ms. Beckman touched on, which is acclimatization and the need, in particular, for temp workers. And I'm just curious if you have thoughts on how you approach work hardening, or other sorts of situations with temp workers where they're not

1	used to working in your facilities, and then you bring
2	them on, and and do you address acclimatization for
3	temp workers now, and if so how?
4	MR. HELMINIAK: Sure. Just before Sedra jumps in,
5	I can say there are a lot of a lot of SOCMA members
6	certainly have seasonal workers. And I can reach out
7	to our members, work with Sedra again, with the Health
8	and Safety Committee, and get a cumulative answer, sort
9	of from the group.
10	But Sedra, is there anything you would like to add
11	there?
12	MS. BECKMAN: I think, Robbie, you said that best
13	that it would if we do the group consensus
14	MR. HELMINIAK: We'll do that.
15	MS. BECKMAN: it'd be better.
16	MR. LEVINSON: Okay. Thank you.
17	The next question from OSHA, Your Honor, comes
18	from Stephen Schayer.
19	MR. SCHAYER: Yes. Hello, I'm Stephen Schayer
20	from OSHA. First, thank you to Ms. Beckman and Mr.
21	Helminiak for being here today, and for your testimony.
22	I had a question about triggers that was based on



the SOCMA written comment that we received. So in your comment there, it was mentioned that many of your member companies expressed concern that the high heat trigger in the proposal, which is a heat index of 90 degrees, was too low. And you indicated that many of your member companies currently use an ambient temperature of 95 degrees as the applied trigger.

As you know, the proposed rule relied on heat index, which takes into account ambient temperature and humidity. So just wondering if you would support, or your membership would support an increased high heat trigger based on a heat index, say for example, 95 degrees, or if not, you know, if there are any high heat triggers that would be based on heat index that would be feasible for SOCMA and your membership.

MR. HELMINIAK: I'll certainly go back and ask the committee. But again, I think we would need to look at it from a more regional approach. Having just a static, single, definitive, whether it's heat index, or temperature, whatever it might be, it is problematic.

You know, as Sedra mentioned, you know, in some cases we have companies where the employees live in the

1	region. They work there all the time, like they have a
2	different sort of comfort level, even with that region
3	than a different region where they might need lower
4	thresholds. I will go back and I'll see if we if we
5	can if we have a specific finite number. But I
6	suspect the answer is going to be that we really need
7	flexibility, and a much more regional approach.
8	MR. SCHAYER: Sure. Thank you. And if there's
9	any evidence that you could submit to the record on,
10	you know, geographical and/or evidence, and data
11	that would support geographical approaches. And also,
12	you know, at what level that could be done? Is it
13	based on state, or region, or local level? You know,
14	things things like that would be helpful.
15	MR. HELMINIAK: Okay.
16	MR. SCHAYER: Thank you.
17	MR. LEVINSON: Your Honor, the next question from
18	OSHA comes from Deirdre Green.
19	MS. GREEN: Good afternoon. This is Dr. Deirdre
20	Green with OSHA Standards and Guidance. This question
21	is regarding recordkeeping. In the written comments
22	that you guys submitted, you mentioned that the



1	proposed recordkeeping provision for temperature
2	monitoring would be burdensome. As is, the proposal
3	provides the flexibility of maintaining temperature
4	records for indoor work areas in a written form or
5	electronically, and many monitoring devices have the
6	storage capacity to retain records for the proposed
7	six months. Do you think that using electronic
8	monitoring devices would make the proposed
9	recordkeeping requirement less burdensome?
10	MR. HELMINIAK: I'll get you a better answer in
11	writing afterwards, but I suspect that, you know, even
12	when we're talking about electronic. I don't know that
13	that solves the problem. I think there's a lot of
14	temperature fluctuation in these sites, and I think
15	that the recordkeeping benefit is, probably not great.
16	I suspect it does not, but I will get you a better
17	answer.
18	MS. GREEN: Thank you very much. That's all for
19	me.
20	MR. LEVINSON: All right. Your Honor, the next
21	question from OSHA comes from Zoe Petropoulos, who is
22	joining us online.

1	MS. PETROPOULOS: Hi. This is Zoe Petropoulos
2	with the Directorate of Standards and Guidance. I have
3	a few questions about paragraph (d), which is
4	identifying heat hazards. And these are related to
5	comments that SOCMA submitted. My first question, in
6	the written comments, you mentioned that many member
7	companies with outdoor work sites measure temperatures
8	on site daily, and that these members conduct more
9	frequent monitoring during the warmer months.
10	So my question is if you have any specifics, any
11	data, or examples on what that frequency of monitoring
12	that members conduct in the warmer months looks like?
13	Anything you're able to provide now or in post-hearing
14	comments?
15	MR. HELMINIAK: I don't have anything at my
16	disposal, but I can go back to the members, we can get
17	some we can get some examples, certainly.
18	MS. PETROPOULOS: Got it. And a related question,
19	you're as you're likely aware, the current language
20	in the proposal for monitoring outdoor work sites is
21	that employers, quote, "Must monitor with sufficient
22	frequency". And so we're curious if your organization

1	has any thoughts on this language in the context of
2	what members are already currently doing?
3	MR. HELMINIAK: I can go back and poll my members
4	and get you guys a better, more comprehensive answer
5	than I could than I could estimate right now.
6	MS. PETROPOULOS: Okay. We heard I'll just
7	add, we heard yesterday from a witness that they
8	they actually did not like that language, and they
9	thought it was too ambiguous and that they would prefer
10	more objective criteria to know what frequency they
11	should monitor. So we're curious if your organization
12	has any thoughts on that witness's perspective?
13	MR. HELMINIAK: I will have to go back and look at
14	the witness's testimony because I'm not sure, and I
15	can't say off the top of my head, but I can follow up,
16	and we can give you a written answer to follow up.
17	MS. PETROPOULOS: Okay. And if it's helpful, this
18	would this comment yesterday was from The Brewers
19	Association.
20	MR. HELMINIAK: Okay.
21	MS. PETROPOULOS: And then I have one more
22	question for you about monitoring of temperatures and



1	heat index. So in your member company's indoor
2	facilities, so transferring from outdoor to indoor now.
3	MR. HELMINIAK: Uh-huh.
4	MS. PETROPOULOS: Are there any work areas that
5	remain at consistent or predictable temperatures or
6	heat indexes?
7	MR. HELMINIAK: That's going to be that's going
8	to depend on company to company. I'm sure there are, I
9	don't know I don't know what percentage of them are.
10	It's probably pretty minimal, but again, I can go back
11	to the members and ask.
12	MS. PETROPOULOS: Okay. My follow-up question is
13	for those members who may have work areas that do
14	remain at consistent or predictable temperatures.
15	We're interested in their thoughts on the current
16	language in paragraph (d) of the proposal that outlines
17	the monitoring plans that indoor employers with indoor
18	work areas would need to create.
19	And we're wondering if that language that is
20	currently there around monitoring plans, would allow
21	them to avoid what SOCMA described in their comment as
22	like the hourly monitoring of every single work area.

1	We're wondering if that your members view that
2	language as allowing them to avoid that or not. And if
3	there are changes that SOCMA would recommend for
4	capturing these situations, we would be welcome to it.
5	MR. HELMINIAK: Okay. I will go back and ask them
6	as well. I will ask them that as well.
7	MS. PETROPOULOS: Thank you. And I do have one
8	more question for you about rest breaks. I know in
9	SOCMA's comment there was mention of break areas, and
10	there was mention that, you know, water would be
11	provided, typically, near work areas. And I'm
12	wondering if you could discuss how your members
13	currently handle rest breaks. Specifically, if they
14	are provided to workers as workers believe they are
15	needed, or if they are scheduled rest breaks. If it
16	varies by member, we're curious what the various
17	members' plans on rest breaks currently are.
18	MR. HELMINIAK: It's going to vary by member.
19	It's going to vary by member and facility. I speculate
20	that they all sort of tailor it to almost their
21	individual employees, because as I said, we're small-
22	medium-sized businesses, so they know, you know, who is

on the floor, who is moving indoors and outdoors, you know, what temperatures they're used to. Anything -- any specific reason for them to be treated in a unique fashion. They're going to know that, and it's probably going to be on an individual, case-by-case basis.

There is not -- I strongly suspect there's not going to be any generic approach, like they may have a minimum, they may say you must take a break every so often, but I suspect that that approach is going to be literally facility to facility, maybe even almost employee to employee.

MS. PETROPOULOS: Got it. And if there are examples of what you just described, if there are members that do have minimums, but it's flexible otherwise, or if there's kind of generic flexibility and that workers kind of dictate when they take breaks, we're interested in hearing that. As you probably are aware, the proposed standard includes rest breaks if needed at the initial trigger, and then the mandatory scheduled rest breaks at the high heat trigger.

And so we're wondering if this would be feasible for your members, and if it would - if any part of it,

1	or all of it, would be consistent with what they're
2	already doing.
3	MR. HELMINIAK: Got it. I will check with them.
4	MS. PETROPOULOS: Okay. Thank you so much. And
5	sorry for all the questions; but that's it for me.
6	MR. LEVINSON: Thank you. And Your Honor, before
7	I go on to the next person, I actually wanted to have a
8	follow-up question related to rest breaks.
9	We've heard from people in other industries, such
10	as construction, where people are doing concrete pours
11	and they have kind of batch processes that can't be
12	interrupted. We're curious if there are things in your
13	industry where there are similar chemical processes,
14	manufacturing processes that can't be interrupted, and
15	how you accommodate breaks in those scenarios, and what
16	techniques your members have used for those sorts of
17	scenarios to deal with heat, would be particularly
18	helpful.
19	And for the record, that was Andrew Levinson from
20	OSHA.
21	Your Honor, the next question from OSHA comes from
22	Patti Downs, who is joining us online.

1	MS. DOWNS: Hi, everyone. Patti Downs with the
2	Directorate of Standards and Guidance. Both today and
3	in the written comments submitted, SOCMA discussed how
4	some controls are not appropriate in chemical
5	manufacturing environments as they can cause other
6	risks of harm to employees. For example, I think in
7	the written comments it mentioned fans or cooled air
8	directed at work areas may increase worker exposure to
9	airborne contaminants or affect calibration of scales.
10	So OSHA is interested in learning more about what
11	controls your members have implemented to reduce
12	exposures in these areas.
13	MR. HELMINIAK: Okay. I may have to follow up
14	with you on that question, but I can certainly reach
15	out to our members and
16	MS. DOWNS: Okay.
17	MR. HELMINIAK: get some get some good
18	examples there.
19	MS. DOWNS: Great. Thank you. We've also
20	heard oh, Patti Downs from the Directorate of
21	Standards and Guidance again. We've also heard from
22	other commenters that several provisions in the rule



1	would not be feasible for workers who move between
2	indoor and outdoor work sites. So we're wondering if
3	you have procedures or protections I'm sorry what
4	procedures or protections do your member companies
5	currently have in place for those types of workers?
6	MR. HELMINIAK: Again, this is going to be on a
7	facility-by-facility, maybe even an employee-by-
8	employee basis, but I will I'll get you guys some
9	examples from our members.
10	MS. DOWNS: Thank you so much. That's all for me,
11	Andy.
12	MR. LEVINSON: Thank you. And before I go to the
13	last question, I just wanted to remark, and I may
14	butcher your name Mr. Helminiak?
15	MR. HELMINIAK: Yes.
16	MR. LEVINSON: Okay. I saw you scribbling notes,
17	and I just wanted to let you know OSHA is going to be
18	producing a list of the questions that we've asked that
19	will be out about a week or so after the conclusion of
20	the hearing.
21	MR. HELMINIAK: Okay.
22	MR. LEVINSON: We'll be posting it on the website,



1	and we will be emailing it to everybody who spoke and
2	filed a notice of intent to appear. So while you're
3	furiously scribbling notes, I wanted to let you know
4	we've got you covered.
5	(Laughter.)
6	MR. LEVINSON: And want to make life a little
7	easier for you.
8	MR. HELMINIAK: Well, thank you, I appreciate it,
9	because I was getting nervous because my notes were
10	getting long.
11	MR. LEVINSON: Yeah. The other thing is, the
12	YouTube videos are also available the day after, and so
13	you can go on the website and click on today's hearing,
14	and you can always rewatch the YouTube video as well.
15	Our last question from OSHA comes from Adriana
16	Lopez here in the room.
17	MS. LOPEZ-MENENDEZ: Hello, Adriana Lopez, OSHA
18	Directorate of Standards and Guidance. Thank you for
19	your testimony. Just wanted to know, do your members
20	typically have a way to store ice on site, such as an
21	ice maker or freezer?
22	MR. HELMINIAK: I'm fairly certain that most of



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- 1 them do, but let me confirm that and go back and get 2 you a firm answer and get you some examples of exactly 3 what they would do for ice storage. 4 Thank you. That's all for MS. LOPEZ-MENENDEZ: 5 me. 6 MR. LEVINSON: Okay. Your Honor, that concludes 7 the questions from OSHA. JUDGE KULTGEN: Any questions from the Solicitor? 8
- 9 MS. WILES: Thank you, Your Honor. Linda Wiles
 10 from the Solicitor's Office. I just wanted to verify
 11 some of the comments you made today. And just to
 12 confirm my understanding.

I think I heard you say a couple of things about reporting HRIs or use of PPE. I wanted to ensure that you are basing your comments on the proposal and the reg text that was proposed in OSHA's rule, and not considering the framework that was presented during the SBREFA process, because the recordkeeping requirement is limited to indoor monitoring temperatures, and that was referenced in some of our -- my OSHA colleagues' questions about electronic monitoring --

Uh-huh.

MR. HELMINIAK:

1	MS. WILES: and PPE is an optional control, but
2	I think I understood you to say that some in some
3	instances, PPE may not be available to employees at
4	your members' work sites. So I just wanted to provide
5	an opportunity for you to clarify that testimony.
6	MR. HELMINIAK: Sure. And I will come back with
7	you in writing on that as well. But the PPE example
8	was just to ensure what I want to make sure that we
9	do in this and as I said, all regulation really to
10	make sure that there's not a conflict, to make sure
11	that there isn't some type of safety requirement that
12	mandates you not wear something, or that you do
13	something in the facility, but then have another
14	conflicting requirement related to heat illness that
15	tells you to direct you to do something else. PPE
16	was really just the example that I was using in that
17	instance, but I will make sure to revisit this with my
18	members.
19	MS. WILES: Thank you so much. Linda Wiles again
20	from the Solicitor's Office. And just to follow up on
21	something that Andy said, there will be an official
22	transcript of the hearing also produced after the

1	conclusion of the hearing, and that will be posted to
2	the rulemaking docket, as well as the video recordings
3	up from the YouTube live stream, and the questions
4	document that OSHA will be preparing.
5	That's it from me, Your Honor.
6	JUDGE KULTGEN: Thank you. Any questions from
7	other participants?
8	MS. CARLON: Yes, Your Honor, we have one from Mr.
9	Lundegren. Please state your name for the record.
10	MR. LUNDEGREN: Thank you. This is Bruce
11	Lundegren at the Office of Advocacy at the U.S. Small
12	Business Administration.
13	Hi, Robert and Sedra, good to see you both.
14	First, let me thank you, your association and your
15	members who participated in the SBREFA panel on this
16	rule. That was very much appreciated and very helpful.
17	Robert, I wanted to follow up on a question. And
18	obviously, a lot of the small businesses that have
19	provided input have said that they'd like a rule that
20	is less prescriptive, and more flexible, and a
21	performance-oriented type of standard. And there was
22	an earlier question that said, if you had a performance

standard would say something like: Provide water to
your employees. But it would entail a lot more than
that.

You shall provide water in sufficient amount -- amounts to ensure that each employee is adequately hydrated.

You know, so could you talk a little bit more about what -- what does a performance standard entail and how would that be -- ensure employee safety and health?

A performance standard would say something like:

MR. HELMINIAK: Sure. I'm going to -- again promise to follow up in writing, but you know, in this instance, yes, that was a general example, to provide water. But you know, at each one of our facilities, our members are actually looking at these, you know, on an individual basis. You know, every facility is going to be different in different regions of the country. And they're going to have, you know, a different actual plan for their employees, for their wellness.

And the flexibility that's really necessary for these plans varies -- is integral because it -- there are many factors that can really influence it. For example, the temperature may fluctuate over the course

1	of the day. So having having a flexible plan is
2	actually a much better approach than having something
3	that is purely prescribed and purely the purely a
4	checklist is effectively what we really want to avoid
5	there, is what we want is that flexibility. But I
6	will, as I said, follow up in writing, Bruce. Okay?
7	MR. LUNDEGREN: Sure. Bruce Lundegren from the
8	Office of Advocacy again. And Robert, if I could, a
9	lot of the small businesses have talked about
10	impracticality, and I think there was an earlier
11	question on this. Also, I think Mr. Levinson asked,
12	impracticality, and feasibility, or creating a greater
13	risk. And obviously in your industry, in your sector,
14	you are dealing with complex chemical reactions.
15	So is this something that a final rule should
16	include a provision? And how in particular are these
17	types of mandatory breaks, and things like that, how
18	are they a challenge in your sector?
19	MR. HELMINIAK: Sure. We you're right, Bruce,
20	we do have a lot of there are a lot of hazardous
21	materials on site. There are a lot of federal and
22	state rules that we have to comply with in the handling

1	of all of those. And we want to make sure that
2	there's there isn't a conflict here. Whatever the
3	final rule that OSHA may come up with needs to ensure
4	that there is, in fact, no conflict, because we don't
5	want to take somebody out of a potential heat illness
6	issue and put them in a different type of risk.
7	We don't want to put them in a place where
8	they're you know, violating some type of other type
9	of standard. Or even going broader, even outside of
10	just the OSHA space. You know, there's there are
11	EPA regulations that we have to comply with as well.
12	And that is absolutely something that OSHA has to keep
13	in mind as they develop a final rule.
14	MR. LUNDEGREN: Okay. That's great. Thank you,
15	Robert.
16	Thank you, Your Honor. That's all I had.
17	JUDGE KULTGEN: Thank you. Thank you for your
18	testimony, Ms. Beckman and Mr. Helminiak.
19	MR. HELMINIAK: Thank you.
20	JUDGE KULTGEN: Before we call the next group of
21	people, we will wait for questions until after the five
22	speakers on the screen right now have provided their



testimony. So we will not be doing questions after

each one. But the individuals should remain on the

webinar to respond to questions after the testimony of

Ms. Grant.

MS. CARLON: Great. The next speaker is Robert

MS. CARLON: Great. The next speaker is Robert Byron. Please state your name and affiliation for the record.

DR. BYRON: Good afternoon, Your Honor, and Agency representatives. Thank you for the opportunity to speak. My name is Robert Byron. I'm a physician who practiced internal medicine in Southern Montana for over 35 years, caring for patients in the clinic, the emergency room, and the hospital. Most of that time was spent caring for patients who had limited access to health care, primarily due to financial reasons. And all of that time has been spent caring for patients considered high risk of suffering from exposure to extreme heat.

Thus, I come before you today on behalf of my patients and the hundreds of thousands of other workers in need of common-sense protections for life altering, potentially life threatening heat illnesses.

Even in Montana, located in the northern part of the Continental U.S., as we are, and not a subject to the increasingly frequent and extreme heat events in the southern U.S., the 2021 Climate Change and Human Health in Montana Report, for which I was one of the lead authors, identified heat as one of the most important climate-related health concerns already affecting Montanans' health.

When I started practicing in the 1980s, the heat waves were much less frequent. That began to change, and I routinely caution patients about, particularly those with chronic medical conditions, to be aware of the heat. As time progressed, I didn't just caution those that were high risk. I cautioned everybody because the extreme heat is such a health risk.

You've heard a lot about the health risks, and I won't go into those, but I will emphasize two, and one in particular is the impact on pregnant women and their fetuses. If somebody my age, as an elderly person, dies from a heat exposure, that's bad and we don't want it to happen, but if it impacts a pregnant woman or her child, such the child is born prematurely or with

intrauterine growth retardation, that child is impacted for their entire lives. They do not grow out of it, and that is -- everything we can do to prevent that is necessary.

The other aspect that you've probably heard -- may not have heard much about, and that is the hundreds of thousands of people who are at increased risk for adverse impacts from heat exposure because of the medications they have to take every day for common conditions like high blood pressure, heart failure, and mental health conditions that affect their body's ability to regulate temperature and put them at increased risk for heat effects.

As tragic as hospitalizations and deaths are, especially when most are preventable, what's missing from those numbers are the huge economic impacts of heat-related illnesses on people as well as businesses. The lost wages resulting from decreased productivity due to heat, as well as the time required to treat and recover from those illnesses, is devastating to individuals and businesses alike.

One study found that heat-exposed agricultural



1	workers were 14 percent more likely to experience a
2	traumatic injury, compared to non-heat exposed ag
3	workers. And a 2021 study found that occupational
4	injuries increased on hot days, both indoors and
5	outdoors, including injuries not directly related to
6	heat, such as slips and falls. And then a 2021 report
7	from the Adrienne Arsht-Rockefeller Foundation
8	estimated extreme heat accounts for as many as 120,000
9	work-related injuries per year.
10	For all those reasons, I urge you to implement
11	strong heat standards that provide appropriate warning,
12	protections and preventative measures for both indoor
13	and outdoor workers. And I thank you for your time and
14	for listening.
15	JUDGE KULTGEN: Thank you. Please remain on the
16	webinar and we will call the next witness.
17	MS. CARLON: The next speaker is Robin Richard.
18	Please state your name and affiliation for the record.
19	Ms. Richard? Ms. Richard, it looks like you are
20	unmuted, but we are not able to hear you.
21	JUDGE KULTGEN: Ms. Richard, you may want to leave
22	the meeting and come back. We will recall you later,

1 and hopefully then you'll have a connection. Hopefully you can hear me, and hopefully then you'll have a 2 connection and we'll be able to hear you. 3 4 MS. CARLON: And I'll just send her some 5 instructions in the chat? 6 JUDGE KULTGEN: Thank you. 7 MS. CARLON: The next speaker is Eve Shapiro. Unfortunately, we do not see your name in the attendee 8 9 list, so if you have joined under another name, please 10 use the raise-hand feature to indicate your presence. 11 And if you've called in, please select star 3 to raise 12 your hand. 13 The next speaker is Hazel Chandler. Please state 14 your name and affiliation for the record. 15 MS. CHANDLER: Hi. I'm Hazel Chandler. 16 grandmother -- a mother, grandmother, a great 17 grandmother, 80-year old climate refugee. I've had to 18 flee Phoenix because of extreme heat, and -- and 19 medical reasons, and medications that I'm on that put 20 my life at extreme risk. I am currently staying with 21 my daughter in Prescott, where it's about 20 degrees 22 cooler, and I can handle the weather here.

I want to talk to you about the real people that are behind this. We often talk about, you know, regulations, and all of this different -- but these are real people that are being impacted by heat.

I wanted to share with you a story that really impacted to me, because it's easy to believe that, oh, it's just homeless, it's just people that are, you know, not careful, et cetera, et cetera, that are being impacted.

A few months -- about four years ago I was volunteering for Moms Clean Air Force and -- oh, volunteering -- I was working for Moms Clean Air Force and a volunteer showed up, that was a brand new mom. She just had had her baby, and she wanted to get really active. And over three or four months, she got really active with me, and was one of my best volunteers.

And after Labor Day weekend, I get this panic call from her; and her husband, who is a doctor, who was out hiking with six other doctors, died of heat stroke, out while out hiking. She was absolutely devastated, she's a 20-something -- mid-20s with -- with a tiny baby, at that time was only four months' old. I continued to

follow, follow her, we've kept close tabs, and there's
a couple things that have stuck out that I just think
that is really, really important.

For that reason, I really want to make sure that we get it right when OSHA puts heat things in place.

One of the things is that when -- when it's -- it's hot, when people -- people, their brains are not working as well. And so you know, we often can't depend on another person looking out for the group as reliable when everyone is experiencing the same heat. So we need to keep that in mind that it, you know -- it's just really important that we have things in place so that we have people that are checking on each other that may not have the exposure to the heat.

The other thing that I, you know, realized after listening to her story and this -- all of this is that it happened so fast, you know, they -- her husband and his -- his colleagues, basically took a wrong turn, and were only out an extra, like, hour, and the entire group was in serious heat problems. All of them were evacuated, but he was dead on arrival to the hospital, in fact, he was dead when help arrived.

1	This left a mom, a baby, parents, all kinds of
2	people grieving. And behind every one of our workers
3	that are exposed to extreme conditions there they
4	have loved ones that care about them, and depend on
5	them for an income. And it's it's a huge loss, that
6	the trauma is goes through the entire family.
7	So I encourage you to make sure you think about
8	the people when you're making these rules. And how can
9	you best protect the people, and the families, and
10	people that love them? Please, without delay we I
11	encourage you the strictest possible protection so that
12	we don't have other families like Amy and Chloe that
13	are without their husband and their dad.
14	JUDGE KULTGEN: Thank you. Do we have any
15	questions from the OSHA panel?
16	MR. LEVINSON: Your Honor, I think there was still
17	Megan Grant.
18	JUDGE KULTGEN: You're right.
19	MR. LEVINSON: And then I don't know if Ms.
20	Richard was able to rejoin.
21	JUDGE KULTGEN: Yes. My apologies. I did this
22	out of order. Let's call the next witness.

1	MS. CARLON: The next witness is Megan Grant, and
2	we do not see your name in the attendee list. So if
3	you have joined under a different name, please use the
4	raise-hand button to acknowledge your presence. And if
5	you've dialed in, please use star 3 to raise your hand.
6	And Your Honor, at this time, we do have Robin
7	Richard back on the line as well.
8	JUDGE KULTGEN: Great. It doesn't appear that Ms.
9	Grant is on the line. So let's go ahead with Ms.
10	Richard. You may proceed.
11	DR. RICHARD: Okay. You can hear me now?
12	JUDGE KULTGEN: Yes, we can.
13	DR. RICHARD: Great. My name is Robin Richard.
14	I'm a general internal medicine physician and a fellow
15	of the American College of Physicians, who has been
16	serving rural communities in the Four Corners area for
17	22 years. My number one concern with today's testimony
18	is the health and well-being of the many people here
19	who work in hot indoor and outdoor spaces in myriad
20	occupations.
21	Just yesterday, I saw a woman whose work in a
22	commercial kitchen is making her unwell, as the

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1	workspace is too hot and lacks mechanisms for cooling,
2	and had to write a letter to her employer to make
3	accommodations. I appreciate the proposed rule and the
4	opportunity to testify. Simply, my patients need
5	protection from heat.
6	No one's health or life should be sacrificed to

No one's health or life should be sacrificed to heat, as heat-related illness is preventable with simple and achievable measures, and federal protections are long overdue in becoming more essential as temperatures rise.

I've reviewed the NIOSH recommendations from the 2016 Criteria for a Recommended Standard. This document provides robust and achievable recommendations regarding heat protection standards and provides many tools to implement such standards. NIOSH's recommendations are based on knowledge of heat stress and strain, and geared toward making sure workers' bodies are not exceeding the ability to maintain safe core temperatures in warm conditions.

I'd like to focus on four areas: One, heat trigger levels. Wet bulb globe temperature in conjunction with metabolic demand is the best measure

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for heat triggers. This is why the military developed
it and uses it for people in basic training. It's also
used by athletic programs and should be the standard.

If heat index of 80 degrees is used, it must be highly
localized, adapted to indoor environments, and take
into account heat, radiation, metabolic demand, and
clothing.

Two, acclimatization. 70 percent of heat-related deaths occur during the first week of work due to lack of acclimatization. The body needs time to adapt its compensatory mechanisms. NIOSH recommended schedules for acclimatization are appropriate and should be used for new and returning workers.

The next is medical screening. One of the prior participants spoke about this. It's critical, as many people work in risky environments, have common chronic medical conditions, and take medications that make them more prone to heat-related illness. These people need extra education about how to care for themselves in the heat, and need appropriate accommodations so they can work safely.

Finally, work/rest cycles. Studies show heat

1	exposure leads to worse cognitive and physical
2	performance, resulting in increased injuries and lower
3	productivity. The rest work cycles must be adequate to
4	allow the body to cool and maintain safe core
5	temperatures. And again, NIOSH has a number of
6	recommended standards for that.
7	OSHA's mission is to ensure America's workers have
8	safe and healthful working conditions. OSHA carries
9	out its mission by setting and enforcing standards.
10	I'm asking OSHA to fulfill its mission and make America
11	healthier by heeding NIOSH recommendations in aspects
12	of the proposed rule, and codifying them into robust
13	heat protection standards for both indoor and outdoor
14	workers. Thank you.
15	JUDGE KULTGEN: Thank you. And now we will do
16	any OSHA panel questions for Dr. Byron, Dr. Richard,
17	and Ms. Chandler.
18	MR. LEVINSON: Your Honor, OSHA, thanks all of the
19	witnesses for their testimony, but we have no questions
20	at this time.
21	JUDGE KULTGEN: Any questions from the Solicitor's
22	Office?

1	MS. WILES: Thank you, Your Honor. Linda Wiles
2	from the Solicitor's Office. I also don't have any
3	questions. And I thank all the participants for their
4	attendance and participation today.
5	JUDGE KULTGEN: And any questions from the
6	participants?
7	MS. CARLON: There are none at this time, Your
8	Honor.
9	JUDGE KULTGEN: Okay. Thank you, Dr. Byron, Dr.
10	Richard, and Ms. Chandler.
11	I hate to do this, but can we take another five-
12	minute break?
13	MS. CARLON: No problem.
14	JUDGE KULTGEN: Okay. We'll be back at 3:30
15	Eastern Time.
16	(Break.)
17	JUDGE KULTGEN: Okay let's call the next witness.
18	And again we'll call these five that are on the current
19	slide and then do questions.
20	MS. CARLON: Great. The next speaker is Eduardo
21	Melendrez. We do not see your name in the attendee
22	list, so if you have joined under a different name,



please use the raise hand button to acknowledge your
presence. And if you have joined by phone, please use
star three to raise your hand.

The next speaker is Logan Harper. Please state your name and affiliation for the record.

DR. HARPER: Hello, my name is Logan Harper, and I'm a family physician in Denver, Colorado, who has collaborated with the Centers for Disease Control and Prevention and the City of Denver's Office of Climate Action on various heat resilience initiatives over the last year. But I'm here representing myself. I'd like to start by thanking OSHA for hosting this hearing and taking a vital step towards protecting our nation's workers from the dangerous health impacts of extreme heat.

As many others have testified, extreme heat is one of the deadliest extreme weather events, killing thousands of Americans and causing billions in economic damages and health care costs every year. Workers are on the front lines of this disaster, and I see those impacts frequently amongst my patients. One I'd like to highlight is a young man with poorly controlled

asthma. He does tough manual labor all day, but there's no safe, cool place to store his inhaler at the job site. And on top of that, the hot weather and the bad air quality that comes with it can both trigger his asthma exacerbations.

So as a result of all this, he spends his hard days wheezing and coughing, sometimes barely able to catch his breath. And then he gets very little relief from his rescue inhaler because it's been sitting out in a hot environment. In addition to changing his asthma meds, at our last visit, I had to sign a letter to his employer limiting his work hours just in an effort to keep him out of the emergency department.

In addition to asthma, we know extreme heat worsens a long list of serious health conditions. And we know climate change is making it worse. For -- for instance, just two weeks ago, Fairbanks, Alaska, where only two percent of homes have air-conditioning, issued its first ever heat advisory. And without adequate protections, the impact on workers will continue to get worse. Currently, we see about 120,000 worker injuries from extreme heat every year in the US. That number is

projected to increase to 450,000 by 2050 without adequate adaptation. And by then, the average agricultural worker will spend twice as many days working in unsafe heat as they do today.

make a huge difference in workers' health without sacrificing productivity. Recent studies have found that implementing structured rest, shade, and hydration protocols for agricultural workers not only protects them from heat stress and kidney injuries, it was found that these interventions reduced the total amount of time they spent working, but their productivity actually increased. And that's because the workers are able to get more done in less time when they get adequate relief from heat stress.

OSHA's proposed standard is an excellent place to start and it would make a big difference for the workers' health and safety in this country. I don't have time to go into detail in my three minutes, but for suggested evidence-based revisions that will strengthen these protections, I direct you to the letter submitted by the Medical Society Consortium on

1 Climate and Health.

And in closing, we live in a time where worker health and safety regulations are often at odds with the realities of the warming climate. Currently, only seven states have occupational heat risk regulations, and some of the hottest states in the nation have banned local governments from protecting their workers from heat. So OSHA now has an opportunity to save thousands of lives by urgently passing the strongest version of this rule. Thank you for your time.

MS. CARLON: The next speaker is Patrick

Armstrong. Please -- please state your name and
affiliation for the record.

Thank you.

JUDGE KULTGEN:

MR. ARMSTRONG: Patrick Armstrong. Good

afternoon. I'm a father of four, and it's a little bit

nerve-wracking. It's a very -- it's a very honored

good privilege. I'm going to start -- I only have

three minutes. I was not able to compose my thoughts

onto a tablet or anything. However, I'm talking on the

phone. It's audio only. I am not aware if you were

able to see me while I punched in. Let's just use that

1 word, please. And I want to give everyone due 2 diligence. It has taught -- I have to talk about dignity. 3 4 And I'm going to go -- I have an OSHA #510. I've 5 been in construction for 15 years. I started very 6 I -- and I've been -- I've been working hard. 7 It's 88 degrees in Texas right now. And I'm a safety manager, okay? So I need some help at the safety 8 9 manager point. It's, like, 88 degrees in Texas. You 10 can come to this job site. Please use me as a 11 About 95 percent of the workers do not consultant. 12 have glasses because it's too [redacted] hot, okay? 13 You want to nitpick a little bit of PPE? 14 little bit of dignity. Thank you. 15 I also have a certification -- I'm a certified 16 crane operator. I had a heat stroke in 2022 at a 17 [redacted] -- pardon my language, and I can stop at any 18 time. I believe in God. God is good -- at [redacted] 19 Facebook data center where it pertained to science 20 principles -- radiant energy, radiant thermal rays from 21 the sun created by God, okay? I had to do decking, 22 which was not according to my normal scope of work.

1	didn't know what to do. It was a Monday. My daughter
2	graduated high school. I built the Ranger's stadium.
3	She graduated from that high school. That weekend I
4	had a family [redacted] party. I go to work Monday.
5	God damn it.
6	JUDGE KULTGEN: Mr. Armstrong, I'm going to ask
7	you to try to refrain from using cuss words. You may
8	proceed.
9	MR. ARMSTRONG: God bless you. Thank you. I do
10	need to compose myself. OSHA does not talk about heat
11	stress. Heat stress is vague. What about
12	hyperthermia hyperthermia? There's a scientific
13	term. God bless all the medical people who have spoke
14	during this session. I totally agree with all the
15	medical professionals, the doctors. God bless you.
16	Thank you for doing what you're doing. Thank you for
17	speaking up. To the elderly lady who spoke up on
18	behalf of fathers, God bless you. We have fathers here
19	who don't see their children, okay?
20	We're working ourselves to death. Again, I work
21	in the construction. I am feeling 100 percent
22	privileged to be here. And I will get cool, calm, and

collected in this AC right now. But I have people who 1 2 are out in the AC -- who are not out in the AC and it's 3 88 degrees in Texas. You want to talk about other 4 things, humidity and get science. We can get science 5 and everything. God bless America. God bless OSHA. 6 George Washington was a risk taker. God bless him. We lost a lot of -- we lost a lot of financing on 7 the way. God bless my president. God bless everybody. 8 9 85 percent of the workforce at the Ranger's Stadium 10 were immigrants. That is the American dream. We lost 11 the American dream along the way. We need to -- I'm 12 going to close by saying we need to treat all workers 13 with dignity. 14 We do not have breaks here unless it's mandated by 15 a company. Well, I was on a crane company -- the last 16 This company is from [redacted] -- was from 17 We do not take breaks. I worked 14 hours Europe. 18 building heavy cranes for wind farms. It was 19 beautiful. I was out in the farms, God's country --20 snakes, wildlife. I'm a proud hunter, okay? Again, 21 I'm a third-generation veteran. And you know, I have 22 health problems. I have a bad liver, okay? I -- I've



1	struggled for two years trying to find jobs because I
2	got to change. And now I'm back in. Yesterday, I
3	worked 14 hours as a safety rep. And I can tell you
4	with all my heart, I didn't work a minute of that day
5	because I do what I love and that should matter.
6	It should matter. Every life should matter. We
7	can do more. We can do better. This country is great.
8	It's founded on original principles. We lost the
9	principles on the way. I want to make America great
10	again. God bless you all. Do I have any more time?
11	JUDGE KULTGEN: No. Your time has expired. But
12	please stay on the line in case the panels have
13	questions. We'll proceed to the next witness.
14	MR. ARMSTRONG: Thank you.
15	MS. CARLON: The next speaker is Manijeh Berenji.
16	Unfortunately, we do not see your name in the attendee
17	list. So if you have joined under a different name,
18	please use the raise hand button to indicate your
19	presence. And if you have dialed in, please use star
20	three to raise your hand.
21	And our next speaker is Terese Blackwell-Davis.
22	As well, we do not see your name in the attendee list,



1	so if you have called in, excuse me. If you have
2	joined under a different name, please use the raise
3	hand button to acknowledge your presence. And if you
4	have dialed in, please use star three to raise your
5	hand.
6	Okay. At this time, they are both absent, Your
7	Honor.
8	JUDGE KULTGEN: Okay. Does the OSHA panel have
9	any questions for Dr. Harper or Mr. Armstrong?
10	MR. LEVINSON: Your Honor, Andrew Levinson for
11	OSHA. At this time, OSHA does not have any questions,
12	but we do thank Dr. Harper and Mr. Armstrong for their
13	testimony today.
14	JUDGE KULTGEN: Does the Solicitor's Office have
15	any questions?
16	MS. WILES: Thank you, Your Honor. Linda Wiles
17	from the Solicitor's Office. I also do not have any
18	questions. And I'm very thankful for the witnesses'
19	participation today.
20	JUDGE KULTGEN: And do we have any participant
21	questions?
22	MS CARLON: There are none at this time. Your

1	Honor.
2	JUDGE KULTGEN: Okay. Thank you, Dr. Harper and
3	Mr. Armstrong for your testimony today.
4	MS. CARLON: The next speaker is Annie Carrell.
5	We do not see your name in the attendee list, so if you
6	have joined under a different name, please use the
7	raise hand button. And if you've dialed in, please
8	select star star three to raise your hand.
9	As well for both Elizabeth Jamison and Annette
10	Juarez. I'm going to say your names both individually,
11	but we do not see either of your names in the attendee
12	list. So if you have joined under a different name,
13	please use the raise hand button to indicate your
14	presence. And if you've dialed in, please select star
15	three to raise your hand. But that is Annette Juarez
16	and Elizabeth Jamison.
17	Our next speaker is Bruce Krawisz. Please state
18	your name and affiliation for the record.
19	DR. KRAWISZ: Well, my name is Bruce Krawisz, and
20	I am a physician who specializes in pathology and
21	studies the health effects of global heating and of air
22	pollution. I live in Marshfield, Wisconsin.

1	In 2022, Europe experienced an unusually hot
2	summer marked by heatwaves, droughts, and forest fires.
3	A study conducted by the Barcelona Institute for Global
4	Health and published in the journal, Nature Medicine,
5	estimated that more than 61,000 deaths were caused by
6	extreme heat in Europe in the summer of 2022.
7	Heat is also the leading cause of weather-related
8	death in the United States. Extreme heat is a risk to
9	the health of mothers and babies. Extreme heat
10	exposure before birth is associated with more preterm
11	births, more low birth weight babies, and more
12	stillborn babies. A study entitled "Analysis of Heat
13	Exposure during Pregnancy" was published in the Journal
14	of the American Medical Association in 2023. 400,000
15	pregnancies were studied in California, in Kaiser
16	Permanente health system. They recorded how many
17	unusually hot days each pregnant patient experienced
18	and what complications these patients encountered
19	during labor and delivery.
20	The study showed that exposure to unusually hot
21	days during pregnancy was associated with increases in
22	abnormal blood clotting, heart attacks, heart

1	arrhythmias, difficulty breathing caused by fluid in
2	the lungs, kidney failure, high blood pressure, heart
3	failure, and shock. In this study, statistically
4	significant associations were observed between heat
5	exposure during pregnancy and increased risks of severe
6	labor and delivery complications.
7	In summary, global heating compromises the health
8	of babies even before they are born and harms women
9	while they are pregnant. Please support precautions
10	for outdoor workers during extreme heat. Thank you.
11	JUDGE KULTGEN: Thank you, Dr. Krawisz.
12	MS. CARLON: The next speaker is Natasha
13	Lapcinski. Please state your name and affiliation for
14	the record.
15	MS. LAPCINSKI: Hello. Thank you all so much. My
16	name is Natasha Lapcinski and I am calling in to
17	provide my testimony from Minneapolis, Minnesota. The
18	reason why I decided to join today's testimony is
19	because I felt that it was paramount that everyday
20	people that are impacted by these things have an
21	opportunity to speak.
22	For myself, I'm a restorative justice and

1	transformative justice practitioner. And what that
2	means is I bring people together after severe harms of
3	violence. Sometimes we receive phone calls from
4	organizations or everyday people that work in
5	organizations that are sometimes harmed by policies.
6	It is not uncommon for me to get a phone call from
7	someone who has an employer who's not treating them
8	well. And unfortunately, it is very often the case
9	that the legal route is not necessarily effective for
10	them. A lot of times people are working with employers
11	that are exposed to a lot of egregious situations. I
12	don't think that comes as a surprise to anybody here.
13	But speaking from my personal experience, I just
14	want
15	JUDGE KULTGEN: Ms. Lapcinski, you are frozen. At
16	least for me. You appear to be back. You may proceed.
17	MS. LAPCINSKI: Sorry about that. I'm not quite
18	sure where it left off, but I will just continue with
19	saying that I think stories are really important when
20	we're considering policies.
21	So for myself, I remember in college and this
22	was already nearly 20 years ago to age myself and I

remember we all came back from summer break and one of
our friends commented, oh, my goodness, look at all you
ladies. You lost weight. And as we went around the
room talking about why we lost weight, it was because
one of us was working in a factory and didn't have
access to water and necessary breaks, another person
worked on a farm. And myself, worked at a zoo where I
worked in the background doing a variety of things, but
was put in a kitchen that had no air-conditioning. So
we're standing over steaming hot, hot plates, roasting
hot dogs over roller grills, and deep frying stuff
without adequate air-conditioning. That was so many
years ago.

Fast forward to present day. My partner of eight years works in -- works in the HVAC industry. And if you can imagine going into people's homes without heating or cooling, especially during the hottest temperatures, it is excruciating. And I think something that is really important to know is that, while it's nice and good to say that of course employers would take care of their employees -- while that very well may be the intention of some, it is

incredibly common for everyday people to not feel safe enough to report heat stroke to their employers.

My partner has been with his organization for many years, and a number of his colleagues do not report the heat-related illnesses because they know that they will be fired if they do. That is atrocious. And that is something that's happening all across the United States and to pretend otherwise is really quite dangerous.

Just a couple years ago, a couple of his coworkers in their early 20s had heart attacks during their peak heat season. I say all this to say that if, just by reflecting on a couple of personal experiences -- I can drum up tons of stories. I imagine we all can. And if we can't drum up personal stories, then it might be that it's been a while since we've been in either positions or in jobs where we've had to experience this very thing.

Right now I'm out of breath and sweating, partly because I'm in a building where we do have air-conditioning, but the room I'm in doesn't have any right now. I'm going to move to a different location in a minute here. But if I'm sweating profusely while

1	just sitting here in an 85 degree day in Minnesota, I
2	can only imagine what my partner is currently
3	experiencing at this very moment. He on average loses
4	five pounds this is not an exaggeration during
5	some of his shifts and so do his coworkers. And then
6	he spends his days off recovering.
7	This is just one personal story. And as you see
8	my face, I want people to understand that these are
9	real lives and real people. I truly thank the people
10	that have testified here today, the organizations that
11	have lent their time, and everybody on the OSHA team
12	that's working diligently to make sure that voices are
13	heard from everybody. Thank you so much.
14	JUDGE KULTGEN: Thank you. Do we have questions
15	from the OSHA panel for either Ms. Lapcinski or Dr.
16	Krawisz?
17	MR. LEVINSON: Your Honor, Andrew Levinson for
18	OSHA. The agency thanks, Dr. Krawisz and Ms.
19	Lapcinski, but we do not have any questions for them.
20	JUDGE KULTGEN: Any questions from the Office of
21	the Solicitor?
22	MS. WILES: Thank you, Your Honor. Linda Wiles

1	from the Solicitor's Office. I likewise do not have
2	any questions. And I thank the participants for being
3	here and sharing their stories today.
4	JUDGE KULTGEN: And any participant questions?
5	MS. CARLON: There are none at this time, Your
6	Honor.
7	JUDGE KULTGEN: Thank you. And thank you, Dr.
8	Krawisz and Ms. Lapcinski.
9	MS. CARLON: At this time, all of the attendees on
10	this slide are absent from the attendee list. So I am
11	just going to reiterate the instructions in case you
12	have joined under a different name or have joined via
13	phone as I read through each name on the list.
14	If you have joined via another name, please use
15	the raise hand button to indicate your presence. And
16	if you've joined via phone, please use star three to
17	raise your hand. William Gary McLeod? Megan Metcalf?
18	The Anh Nguyen? Brenda Nuyen? And James Schwarz?
19	The next speaker is Ethan Sims. As well, we do
20	not see your name in the attendee list. So if you've
21	joined under another name, please use the raise hand
22	button. And if you've called via phone, please use

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star three to raise your hand. And our next speaker is Tracie Wagman. Please state your name and affiliation for the record.

MS. WAGMAN: Thank you for the opportunity to address this group today. My name is Tracie Wagman and I'm the CEO of ColdVest. And I think I'm the last person between you all being able to go home at the end of the day. So I promise I will keep this to three minutes.

Every day I speak to companies and employees

working in extreme heat. As per the committee's

request in the proposed rule -- the proposed heat rule,

I'm here to make the committee aware of ColdVest, a noice, close proximity treatment option for heat stroke

and heat-related illness. ColdVest is an FDA Class 1

medical device for rapid core body cooling that

requires no ice, no power, and no refrigeration. It is

lightweight, portable, and can be stored in any

condition, making it uniquely qualified to satisfy

OSHA's close proximity care requirement for heat stroke

and heat-related illness.

ColdVest can be deployed by nonmedical personnel

in less than two minutes and has better rates -- better cooling rates than ice sheets. We would respectfully ask this committee to go even further and mandate immediate cooling within three to four minutes for emergency response.

Less than two weeks ago, I received a call from one of our customers in the southeast. This company couldn't possibly have ice ready at every location. In spite of their best-in-class awareness and prevention an employee in his 20s at one of their sites suffered a critical heat stress incident.

It started with confusion and then loss of consciousness. The manager on duty deployed ColdVest and in a matter of minutes, began cooling the employee. When EMS arrived, they were able to continue cooling with ColdVest en route to the hospital. Upon arrival at the hospital, emergency doctors confirmed he had heat stroke and because of the quick action that was taken at the time of the heat event, the employee was treated and released without being admitted. He made a full recovery.

Emergency protocols are a critical component of

any heat regulation because emergencies happen even
with the best preparation. And in settings where it is
more difficult to have ice, we offer a solution. When
heatstroke strikes, action needs to be taken quickly.
We would like the committee to know that our product
exists so action can be taken quickly to treat heat
incidences anytime, anywhere, by anyone.

OSHA is taking decisive steps towards ending preventable heat deaths. By adding clear direction for a no-ice rapid cooling device, you will ensure that every company has a viable and affordable way to protect their employees in the case of a heat emergency, and that every worker, whether in a warehouse, on a roof, or on a farm, has a realistic chance of survival when seconds matter.

Thank you for your leadership and for considering this vital addition to the final rule. No matter what the final rule looks like, emergency response is critically important in saving lives. I would ask the slides to go to slide 4. This is a slide in -- comparing our ColdVest cooling rates with ice sheets, which is the proposed cooling method in the emergency

1	protocols of the heat rule. Thank you. I'm done.
2	JUDGE KULTGEN: Thank you. Any questions from the
3	OSHA panel for Ms. Wagman?
4	MR. LEVINSON: Yes, Your Honor. Zoe Petropoulos
5	will be asking the question from OSHA.
6	MS. PETROPOULOS: Hi, this is Zoe Petropoulos with
7	the Directorate of Standards and Guidance. So I know
8	in that last slide, you showed there were cooling rates
9	that were achieved with the Cool ColdVest. And I
10	believe this was from field test data conducted by
11	Korey Stringer Institute, but correct me if that's
12	wrong. We were just wondering if those data are not
13	already available in the rulemaking docket, if you
14	could share those in your post-hearing comments. And
15	you know, if there are data that you can versus can't
16	share, you know, we're welcome to anything you're
17	you're able to.
18	MS. WAGMAN: Thank you for your question. This is
19	Tracie Wagman from ColdVest. Yes, you're correct. It
20	was with the Korey Stringer Institute. And I will
21	share the data in the post-hearing comments.
22	MS. PETROPOULOS: Thank you so much. We

1 appreciate it. 2 MR. LEVINSON: Your Honor, that concludes OSHA's 3 questions. 4 JUDGE KULTGEN: Any questions from the Solicitor's Office? 5 6 Thank you, Your Honor. This is Linda MS. WILES: 7 Wiles from the Solicitor's Office. I don't have 8 questions, but I would like to mark Ms. Wagman's 9 presentation as Exhibit number 18 and ask that it be 10 admitted into the hearing record. 11 JUDGE KULTGEN: Yes, I will admit those slides as 12 Exhibit number 18. Do we have any participant 13 questions? 14 MS. CARLON: There are none at this time, Your 15 Honor. 16 JUDGE KULTGEN: Thank you. And thank you, Ms. 17 Wagman. 18 MS. WAGMAN: Thank you. 19 JUDGE KULTGEN: One last time, let's call the 20 individuals who did not -- who were not available 21 earlier just to make sure no one has joined the call. 22 MS. CARLON: Of course, from the top we have Eve

1	Shapiro? Or actually I from the very top we have
2	Valerie Collins? I apologize. Then we have Megan
3	Grant? Eduardo Melendrez? Manijeh Berenji? Terese
4	Blackwell-Davis? Annie Carrell? Elizabeth Jamison?
5	Annette Juarez? William Gary McLeod? Megan Metcalf?
6	The Ahn Nguyen? Brenda Nuyen? James Schwarz? And
7	Ethan Sims? At this time, it looks like they are all
8	still absent, Your Honor.
9	JUDGE KULTGEN: Thank you. Are there any
10	housekeeping matters from OSHA or the Solicitor's
11	Office before we close today?
12	MR. LEVINSON: None from OSHA, Your Honor.
13	MS. WILES: None from me as well, Your Honor.
14	JUDGE KULTGEN: Thank you. We are now at the end
15	of all scheduled witnesses for today. During the
16	hearing during the hearing over the last several
17	weeks, OSHA received a request to add a second post-
18	hearing comment period, specifically for final legal
19	briefs, in addition to the 90 day comment period set at
20	the beginning of the hearing. OSHA has decided to
21	retain the single 90 day post-hearing comment period.
22	Accordingly, hearing participants may submit



1 additional evidence or statements relevant to the 2 proceeding within 90 days of the end of the hearing, 3 which will be September 30th, 2025. At that point, the record for the rulemaking will close. 4 5 This public hearing on the heat illness and injury 6 prevention proposed rule is concluded. Let the record 7 show that all persons and organizations who filed a timely notice of intention to appear have been extended 8 9 the opportunity to do so. Let the record also show 10 that following the presentation of oral comments and 11 testimony, an opportunity has been extended for 12 questioning of the witnesses by NOITA filers and 13 members of OSHA's panel. 14 On behalf of the Department of Labor, I wish to 15 publicly thank all those people who gave up their time 16 and testimony to contribute to this hearing today. 17 all participants, thank you for your interest in the 18 important matter. This hearing is hereby adjourned. 19 (Whereupon, at 2:39 p.m., the hearing was

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adjourned.)

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