

Transcript of Day 11

Tuesday, July 1, 2025

OSHA Heat Injury and Illness Prevention Hearing

www.TP.One 800.FOR.DEPO (800.367.3376) Scheduling@TP.One

Reference Number: 155617

7/1/2025 Page 1

	00001
2	
3	
4	
5	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)
6	
7	
8	
9	OSHA'S INFORMAL RULEMAKING HEARING
10	FOR HEAT INJURY AND ILLNESS PREVENTION IN OUTDOOR AND
11	INDOOR WORK SETTINGS
12	
13	Day 11 of 12
14	Tuesday, July 1, 2025
15	9:30 a.m.
16	
17	
18	
19	
20	
21	
22	

1	PARTICIPANTS
2	PRESIDING:
3	ANGELA DONALDSON, Administrative Law Judge,
4	Office of Administrative Law Judges, United States
5	Department of Labor
6	
7	OSHA PANEL:
8	TIFFANY DEFOE
9	BRENDA FINTER
10	AMY WANGDAHL
11	ZOE PETROPOULOS
12	RYAN TREMAIN
13	JOO-HYUNG SHIN
14	
15	OFFICE OF THE SOLICITOR OF LABOR:
16	LINDA WILES
17	JENNIFER LEVIN
18	
19	
20	
21	
22	

1	PARTICIPANTS, IN ORDER OF TESTIMONY:	
2	SOUTHERN COALITION FOR SOCIAL JUSTICE	
3	Aiswarya Murali	12
4	CENTER FOR AMERICAN PROGRESS	
5	Jill Rosenthal	18
6	CENTER FOR LEGAL ACTION, AMERICAN FREE ENTERPRI	SE
7	CHAMBER OF COMMERCE	
8	Bill McGinley	27
9	CENTER FOR PROGRESSIVE REFORM	
10	Catalina Gonzalez	33
11	ECONOMIC POLICY INSTITUTE	
12	Margaret Poydock	37
13	FLORIDA POLICY INSTITUTE	
14	Dr. Alexis Tsoukalas	45
15	A BETTER BALANCE	
16	Kameron Dawson	51
17	FEDERATION OF AMERICAN SCIENTISTS	
18	Grace Wickerson	57
19	FLORIDA CLINICIANS FOR CLIMATE ACTION	
20	Carol Lindsey	65
21	MX3 DIAGNOSTICS, INC.	
22	Michael Luther	72



1	MICHIGAN CLINICIANS FOR CLIMATE ACTION	
2	Dr. Elizabeth Del Buono	82
3	Dr. Larry Junck	82
4	Dr. Steven Ashmead	90
5	BLKHLTH	
6	Dr. Khadijah Ameen	94
7	HEALTHY CLIMATE NEW MEXICO	
8	Shelley Mann-Lev	98
9	NEVADA CLINICIANS FOR CLIMATE ACTION	
10	Dr. Joanne Leovy	105
11	ELDERS CLIMATE ACTION	
12	Paloma Greenwald	111
13	SUNRISE MOVEMENT	
14	Ashton Dolce	117
15	GREENLATINOS	
16	Irene Burga	123
17	Meisei Gonzalez	127
18	Carlos Matutes	131
19	Patricia Garcia-Nelson	134
20	SEAWAY BOLT & SPECIALS CO.	
21	Genevieve Gurnick-Long	141
22		



1	THE BREWERS ASSOCIATION	
2	Marc Sorini	174
3	ASSOCIATION OF OCCUPATIONAL AND ENVIRONMENTAL	
4	CLINICS	
5	Dr. Marcus Cervantes	205
6		
7	ALSO PRESENT:	
8	MARIAM CARLON, ABT Global	
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
1		

15

16

17

18

19

20

21

22

<u></u>	Ρ	R	Ο	С	\mathbf{E}	\mathbf{E}	D	Ι	N	G	S

2 JUDGE DONALDSON: We are on the record now. 3 hearing that we're here for today will come to order. 4 This is an informal public hearing on the Occupational 5 Safety and Health Administration's proposed rule for 6 Heat Illness and Injury Prevention in Outdoor and 7 Indoor Work Settings. The Notice of Proposed Rulemaking was published to the Federal Register on 8 August 30th, 2024, that's in volume 89 of the Federal 10 Register beginning at 70,698. I'm going to take a few 11 minutes to go over a little bit more of the procedure 12 today, what you can expect, and some rules and quidelines that will apply. 13

Again, my name is Angela Donaldson, and I'm an administrative law judge for the US Department of Labor. I'll be presiding over the hearing today. And the purpose of the hearing is to receive, from the interested parties, oral testimony, as well as other information that's pertinent to the proposed rule. So after this hearing and the post-hearing comment period have closed, OSHA will review the information and the entire record to determine the final — the content of

the final rule.

So my role as the presiding judge will be limited to conducting this hearing today to ensure that a complete and accurate record is made, and that all the interested parties have had -- have received a fair hearing and have an opportunity to submit their information. The hearing schedule and OSHA's procedures governing the hearing are available on the website for the hearing 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 more words here about the nature of the hearing. Despite the informal nature of the hearing, it is governed by rules, both OSHA's rules that govern hearings at 29 CFR part 1911, and hearing procedures specific to this rulemaking. The rules are meant to assure that everyone has a fair opportunity to speak and express an opinion 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 just keep the hearing on

1 schedule.

Any written comments that you've already submitted
to the docket are already a part of the record of the
rulemaking. So in rare cases where witnesses wish to
provide any other documents, not already entered onto
the docket, they may provide them by email to the
following address. OSHAEvents no punctuation, just
OSHAEvents_, D as in delta, S, sierra, G, golf
@dol.gov. So OSHAEvents_DSG@dol.gov. They may do so
before the witness gives testimony and that can be
entered as an exhibit in the record.

Because all the pre-submitted documents are already a part of the record, your oral testimony today should focus and concentrate on presenting the highlights of any written comments already submitted, or clarify that written submission. Hearing participants may also submit additional evidence or statements for a period of 90 days from the end of the hearing. That means -- that will be by September 30th, 2025. At that point, the record for the rulemaking will close.

So today, after each speaker or panel of speakers

completes giving oral testimony, OSHA representatives will have an opportunity to ask questions of that speaker or panel. And when OSHA has finished asking questions, there will be an opportunity, as time permits, for persons who filed a notice of intent to appear to also ask questions of the witness or that panel. Participants may only direct questions to witnesses with whom they do not have an organizational affiliation.

The process I intend to follow is that after OSHA has finished asking questions of a witness or a panel, I will ask participants who wish to ask questions of that witness to identify themselves by raising the hand button in Webex, or by pressing star three on their phones, for those who've called in. So again, if you wish to ask a question after OSHA has asked their questions, please press the raise hand button in Webex or star three on your phones, for those who've called in.

Based on the hearing schedule and the number of participants who wish to ask questions, I'll determine the order in which participants will ask those

12

13

14

15

16

17

18

19

20

21

22

1 questions and any time restrictions on the questioning. 2 If there are more questions than we have time for 3 today, it may be possible to ask additional questions after the conclusion of the final witness's testimony 4 5 this afternoon. So further, if witnesses are unable to 6 answer a question -- so if a witness that you're asking 7 a question of cannot answer it during today's hearing, or would like to expand on an answer provided, they're 8 9 welcome to use the post-hearing comment period to 10 submit that information.

I'd also like to remind you that the proceeding is being recorded and transcribed by a court reporter. To ensure that the reporter is able to provide an accurate record of all the testimony and the questions and responses, please try to remember to give verbal responses to all the questions. The court reporter may have a hard time seeing if you're nodding or shaking your head only in response to a question. I will do my best to remind everyone to verbalize as well. So -- so we will have that option as well.

So please remember to identify yourself before beginning your testimony and before asking a question

or answering a question. And don't worry, since this is not something we all do every day and you're not accustomed perhaps to doing such things, I'm here to remind you as we go along. The transcript of the hearing will be uploaded to the hearing docket at regulations.gov, about two weeks following the hearing.

So unless there are further announcements or other housekeeping matters, I believe we can proceed with receiving the public testimony. The expected speaking order will be displayed on the Webex screen, and our contractor, who opened the hearing off record today, will introduce each speaker in turn and promote them to be panelists. When you are called to testify, remember please state your name and your affiliation for the record and speak slowly and clearly so our court reporter can accurately record these proceedings. So I'll turn now to our contractor to move forward with the schedule of testifiers.

MS. CARLON: Thank you, Judge. The first speaker is Aiswarya Murali. Please state your name and affiliation for the record.

MS. MURALI: Aiswarya Murali in -- on behalf of



1	Southern Coalition for Social Justice.
2	JUDGE DONALDSON: Good morning to you. Thank you
3	very you can proceed with your comments today.
4	Thank you.
5	MS. MURALI: Thank you, Your Honor. Good morning
6	to all. Thank you for the opportunity to testify
7	today. My name is Aiswarya Murali and I am an
8	environmental justice attorney with the Southern
9	Coalition for Social Justice. SCSJ is a community
10	lawyering organization that advocates for low wealth
11	and rural communities and communities of color
12	throughout the American South. We work to ensure that
13	their voices are centered in decisions affecting their
14	health, safety, and wellbeing. We applaud OSHA for
15	proposing this comprehensive and transformational heat
16	injury and illness prevention standard. This is a
17	critical step forward in safeguarding millions of
18	American workers who face increasing and deadly heat
19	exposure in their workplaces.
20	However, it is essential to recognize and address
21	that the impacts of extreme heat are not felt equally.
22	Workers of color, day laborers, including migrant

13

14

15

16

17

18

19

20

21

22

1 workers, and low wage earners, disproportionately bear 2 the burden of heat-related illnesses and fatalities. Across the South, agricultural workers, construction 3 4 laborers, warehouse employees, and day laborers, most 5 of whom are low-income, black, Latinx, or immigrants, 6 face conditions that place them at greater risk due to 7 systemic inequities, limited access to health care, language barriers, and economic vulnerabilities. 8 9 While OSHA's proposed standard is a step in the 10 right direction, and we acknowledge the equity 11

right direction, and we acknowledge the equity
assessment undertaken by OSHA, I wish to highlight some
critical gaps that are apparent to us as we examine the
proposed rule through an environmental justice lens.
We hope that these recommendations will be taken into
consideration by the panel, as they will ensure
equitable protection for all workers, particularly
marginalized and vulnerable populations.

First, OSHA's proposal adopts a single uniform initial heat trigger of 80 degree Fahrenheit heat index for all workers. This trigger temperature in certain cases is too high to protect medically vulnerable individuals, persons with disabilities, pregnant

1	workers, or new and returning employees who are
2	unacclimatized. Extreme heat is an environmental
3	justice crisis, and a single threshold overlooks the
4	realities faced by those most at risk. We urge OSHA to
5	establish a secondary, lower tier trigger specifically
6	tailored for these vulnerable groups by creating a
7	multi-tiered trigger system. The proposed rules would
8	also align with the Americans with Disabilities Act in
9	its requirement for reasonable accommodations for
10	workers whose health conditions place them at greater
11	risk from heat exposure.
12	Second, the sedentary indoor exemption should
13	explicitly require periodic verification of
14	temperatures below OSHA defined safe thresholds, as
15	many workplaces in marginalized communities lack

many workplaces in marginalized communities lack
reliable HVAC systems. OSHA must also consider clearly
defining the temperature of drinking water, shaded
areas, and varying acclimatization periods for
different vulnerable people to remove any ambiguity in
the implementation.

Third, there is insufficient emphasis on

Third, there is insufficient emphasis on culturally competent and linguistically accessible

22

1	training and outreach. Workers cannot effectively
2	exercise their rights or recognize symptoms without
3	clearly understanding heat hazards and safety measures.
4	Farmworkers often face significant barriers to
5	accessing relevant information due to limited literacy
6	levels or a lack of English proficiency. OSHA should
7	mandate training materials and communication in all
8	relevant languages and accessible literacy formats.
9	It's crucial to partner with trusted community
10	organizations to deliver outreach and training to build
11	trust and facilitate genuine compliance.
12	Furthermore, worker participation must be
13	genuinely meaningful and protected. OSHA's proposal
14	should explicitly define who is an employee
15	representative, clarifying that the workers themselves
16	shall choose representatives. Anti-retaliation
17	protections must be robust and explicitly extended to
18	contingent workers, ensuring that no worker fears
19	reprisal for advocating for their safety.
20	Finally, targeted enforcement and transparent
21	
4	reporting are critical. OSHA must prioritize

1	communities, particularly during peak heat months.
2	Establishing a publicly accessible heat illness
3	registry, disaggregated by demographics, industry, and
4	location will ensure accountability and informed,
5	targeted interventions.
6	To conclude, OSHA's proposed standard is a
7	necessary and welcome development. Yet addressing
8	these outlined gaps is essential for equity and
9	effectiveness. SCSJ urges OSHA to adopt these
10	recommendations, ensuring robust protections that
11	prioritize health, dignity, and justice for all
12	workers, leaving no community behind. Thank you for
13	your time and consideration, and I'm happy to answer
14	any questions in detail in the post-hearing comments.
15	JUDGE DONALDSON: All right. Thank you so much
16	for your testimony. Do we have any questions from
17	members of the OSHA panel?
18	MR. TREMAIN: Good morning, Your Honor. This is
19	Ryan Tremain with OSHA Standards and Guidance. And
20	OSHA does not have any additional questions at this
21	time, but we certainly thank Ms. Murali and the
22	Southern Coalition for your testimony this morning.



1 JUDGE DONALDSON: Thank you. Is there any comment 2 or question from the Solicitor's Office? 3 Your Honor, this is Jennifer Levin MS. LEVIN: 4 from the Office of the Solicitor. I do not have any 5 questions for the witness, but thank her very much for 6 her time and testimony today. 7 JUDGE DONALDSON: Okay. Turning next to any other persons present from the public, any other witnesses 8 9 who may have a question from Ms. Murali? 10 MS. CARLON: There are none, Your Honor. 11 Okay. JUDGE DONALDSON: Thank you so much again, 12 Ms. Murali. I hope you have a pleasant rest of your 13 day. 14 MS. MURALI: Thank you, Your Honor and OSHA 15 panelists. 16 The next speaker is Jill Rosenthal. MS. CARLON: 17 Please state your name and affiliation for the record. 18 MS. ROSENTHAL: Hi. Can you hear me? 19 JUDGE DONALDSON: I can hear you. You may present 20 your video if you wish. Currently, it's not activated. 21 MS. ROSENTHAL: Okay. 22 There it is. Thank you. JUDGE DONALDSON:

MS. ROSENTHAL: Great, thank you. Thank you.

JUDGE DONALDSON: You may proceed.

MS. ROSENTHAL: Great, thank you. My name is Jill Rosenthal, and I'm the Public Health Policy Director at the Center for American Progress, or CAP. CAP is an independent, nonpartisan policy institute committed to improving the lives of all Americans by developing bold ideas for policy makers that lead to real change. Our policy teams have expertise across a variety of disciplines and major issue areas.

Ne commend OSHA's efforts to protect the rising number of workers who are exposed to extreme heat conditions across the United States. As the proposed standard notes, heat-related illness has been recognized as an occupational hazard for decades. In addition to significant risks for workers from heat-related illness, the economic impacts are also well documented, including lost worker productivity, increased health care costs, worker compensation claims, and threats to workers financial stability. It's well documented that extreme heat is the leading cause of weather-related deaths in the United States.

1	In 2023, CAP worked with researchers at Virginia
2	Commonwealth University to better understand the health
3	impacts of extreme heat, which led to a report that
4	derived estimates of increased healthcare utilization
5	and healthcare costs associated with extreme heat.
6	According to our research, heat event days are
7	responsible for almost 235,000 emergency department
8	visits and more than 56,000 hospital admissions for
9	heat-related or heat-adjacent illness each summer,
10	adding about \$1 billion in healthcare costs.
11	In 2024, CAP released a series of reports
12	elevating policy proposals to protect populations at
13	greatest risk from high heat exposures, including
14	indoor and outdoor workers. Informed by conversations
15	with heat scientists, labor advocates, and people
16	experiencing extreme heat on the job, we included a
17	federal heat standard among those recommendations.
18	With the increasing frequency of extreme heat
19	conditions and greater exposure of workers to unsafe
20	conditions, the standard is now more critical than
21	ever.
22	CAP recently issued a report urging states to

protect workers from extreme heat in the absence of a heat specific federal standard. And yet we recognize that state action is not sufficient. The proposed rule would provide a strong, uniform standard. We recommend the following modifications to the proposed standard to ensure it offers appropriate protection for workers.

First, written heat injury and illness prevention plan should be required for all employers, including those with fewer than 20 employees. In construction, which is one of the core industries with high exposure to heat-related hazards, the majority of enterprises have fewer than five employees. Excluding smaller workplaces disproportionately impacts workers in low wage jobs, who are frequently employed in settings with extreme heat risks and already face limited workplace protections.

Second, CAP recommends the proposed heat triggers be linked to the National Weather Service wet bulb globe temperature, and that triggers for employer responses to rising temperatures be based on on-site actual heat measurement, as opposed to estimates or forecasts.

Third, CAP supports OSHA proposal to provide paid breaks for workers under high heat conditions and urges the agency to extend the protection to all employees, including non-union and piece rate workers, who are currently most vulnerable to extreme heat health hazards. A paid break standard would ensure consistent protection, address existing gaps, and safeguard worker health. It aligns with fair labor standards that require compensation for safety procedures critical to core job duties, such as putting on and taking off protective gear.

We recommend that OSHA require breaks at lower temperature thresholds and longer rest breaks -- rest breaks as heat conditions increase in line with NIOSH recommendations. In addition, heat safety plans and worker training materials should clearly emphasize that workers have the right to take breaks and that employers must support them in taking those breaks.

And last, while the proposed rule requires immediate action to reduce body temperature in the case of an emergency, the language should be clarified to require the use of effective, whole-body cooling

1	equipment, and should specify that employers need to
2	provide this equipment. This is particularly important
3	in rural areas where it may take more than 30 minutes
4	for emergency services to arrive. CAP greatly
5	appreciates the opportunity to comment on the proposed
6	rule and strongly supports its implementation. Thank
7	you.
8	JUDGE DONALDSON: Thank you as well. Are there
9	any questions from OSHA?
10	MR. TREMAIN: Yes, Your Honor, this is Ryan
11	Tremain with OSHA Standards and Guidance, and we do
12	have a few additional questions. I can start things
13	off with a question regarding training. And in your
14	written comment, you had discussed the importance of
15	language accessibility and training materials,
16	particularly among indigenous workers. And the
17	question would be, are there changes that OSHA can make
18	to the training requirements that would better improve
19	the accessibility of training materials?
20	MS. ROSENTHAL: Thank you for that question, and
21	I'd be happy to follow up on that during the post-
22	hearing period.

1	MR. TREMAIN: Okay. That would be great. Thanks
2	so much. And also, if you might be able to add whether
3	there are any translation tools that your organization
4	would recommend that employers could use for accurate
5	translations?
6	MS. ROSENTHAL: Great. Happy to do so.
7	MR. TREMAIN: And next, I wanted to kick things
8	over to Tiffany DeFoe who is joining us virtually.
9	MS. DEFOE: Hi. For the record, this is Tiffany
10	DeFoe with the Directorate of Standards and Guidance,
11	OSHA. I wanted to ask a couple of questions pertaining
12	to rest breaks. And in terms of the comments that
13	you've made, that's that's been a concern that's
14	been raised by other commenters in in the hearing
15	process as well. We've also heard testimony from folks
16	who are raising concerns about the difficulties with
17	applying a mandated scheduled break system. And so I'd

19

20

21

22

like to ask first, in terms of -- of the mandated

scheduled breaks that you're recommending be extended

to the initial heat trigger, if your organization has

breaks could be the -- the flexibility of how they're

any thoughts that they can share on ways that those

1	scheduled and used could be increased without you
2	know, without while still protecting workers.
3	And in addition, there have been some specific
4	concerns raised about work sites such as communication
5	towers, highway and bridge construction, where remote
6	locations or long distances from vehicles and tents can
7	make access to shade or cool down space very difficult.
8	And we'd also be interested in any recommendations that
9	you can share about how situations like that could be
10	addressed.
11	MS. ROSENTHAL: Great. Thank you for that
12	question. I'm also happy to follow up with that, with
13	an opportunity to consult with my colleagues and we'll
14	provide written comments.
15	MS. DEFOE: Thank you very much. And I'm sorry,
16	I'm just realizing that there was the last question,
17	there was a specific request for practical means of
18	scheduling and designing rest breaks. Anything along
19	those lines would be great. Thank you. That's all I
20	have.
21	MR. TREMAIN: And next we have Zoe Petropoulos,
22	who is also joining us virtually.

1	MS. PETROPOULOS: Hi. This is Zoe Petropoulos for
2	the Directorate of Standards and Guidance. So in your
3	written comment on the NPRM and in your testimony as
4	well, you said that you recommended the use of on-site
5	measurements of wet bulb globe temperature. And my
6	question is, are you aware of any employers who are
7	already successfully using wet bulb globe temperature
8	measurements at their work site to assess heat stress?
9	MS. ROSENTHAL: Again, I'd be happy to follow up
10	on that. Thank you.
11	MS. PETROPOULOS: Got it. And I'll just say if
12	you are aware, if you could share any examples or any
13	data you have on which employers currently use these
14	methods. We're particularly interested in any examples
15	from small businesses and or businesses without an
16	industrial hygienist on staff.
17	MS. ROSENTHAL: Thank you.
18	MS. PETROPOULOS: Thank you. That's it for me,
19	Ryan.
20	MR. TREMAIN: This is Ryan Tremain with OSHA. And
21	I believe that concludes OSHA's questions. But a big
22	thank you to Ms. Rosenthal and CAP for your testimony

1 today. 2 MS. ROSENTHAL: Thank you. 3 JUDGE DONALDSON: All right. Thank you, everyone. 4 Any questions from the Office of the Solicitor? 5 Your Honor, this is Jennifer Levin MS. LEVIN: from the Office of the Solicitor. I do not have any 6 7 questions for Ms. Rosenthal. Thank you very much for your time and testimony today. 8 9 JUDGE DONALDSON: And Ms. Carlon, do we have any 10 members of the public who have indicated an interest in 11 asking a question? 12 MS. CARLON: We do not, Your Honor. 13 JUDGE DONALDSON: Okay. All right. We'll be able 14 to excuse you, Ms. Rosenthal. Thank you for appearing 15 and participating. 16 Thank you. MS. ROSENTHAL: 17 MS. CARLON: The next speaker is Bill McGinley. 18 Unfortunately, we do not see your name in the attendee 19 So if you have joined under a different name, 20 please use the raise hand button to indicate your 21 presence. And if you have dialed in, please use star 22 three to raise your hand. Please state your name and

affiliation for the record. 1 2 MR. MCGINLEY: Chamber of Commerce. 3 JUDGE DONALDSON: Can you state that again? 4 Thank you for the opportunity. MR. MCGINLEY: 5 JUDGE DONALDSON: Can you back up just a --6 Sure, this is Bill McGinley. MR. MCGINLEY: 7 JUDGE DONALDSON: Thank you. Thank you, Mr. McGinley. Go ahead. 8 9 MR. MCGINLEY: Yes. Apologies. I'm having 10 technical difficulties, so I dialed in today. 11 JUDGE DONALDSON: Understood. Thank you. 12 MR. MCGINLEY: So this is -- yes, this is William 13 McGinley, and I'm testifying on behalf of the American 14 Free Enterprise Chamber of Commerce. And I want to 15 thank you for the opportunity to provide testimony 16 today. As stated before, I represent the Free 17 Enterprise Chamber of Commerce or AMFree, an 18 association dedicated to advancing free enterprise, 19 limited government and the interests of small and medium-sized American businesses. Our Center for Legal 20 21 Action focuses on fighting administrative overreach at 22 the federal and state levels.

American workers should be treated with dignity and protected from serious harm, but American workers have to be protected from extreme regulatory policies as well. OSHA's proposed rule is such an extreme policy. The proposal is vastly disproportionate to the risk it aims to address and not reasonably necessary or appropriate as the Occupational Safety and Health Act requires. OSHA intentionally designed the proposal to insulate even the least vulnerable workers from heat-related risk, regardless of the cost.

The scope of OSHA proposal is breathtaking. The rule would apply a uniform set of commands, including mandatory paid rest breaks on -- on demand whenever it's warm outside to 36 million outdoor workers, ranging from workers lifting heavy loads of steel foundries to workers in daycare centers. The result is a regulatory overreach and red tape nightmare. The proposed rule would impose billions of dollars in incremental annual compliance costs. It would expand jobs for quote, "compliance", end quote professionals, while further shrinking the productive sectors of the US economy, including in sectors such as agriculture,

manufacturing, construction, and energy.

The rule would also lower wages for workers, raise product prices, and kill American jobs out of proportion to any modest safety benefit. There is no need for an intrusive federal regime regulating heat exposure at work. According to BLS, less than 1 percent of all occupational deaths are heat-related, and less than 0.1 percent of serious injuries at work are heat-related. These deaths and injuries are also easily preventable through education and addressed at the State and local level, without intrusive red tape, OSHA would impose on states as diverse as Florida and Washington state.

The proposed rule would also be unenforceable as a practical matter. The proposed rule would govern an estimated millions of small businesses, including hundreds of thousands of landscapers, contractors that are judgment proof and that pose a veritable nightmare for OSHA's inspectors during the summer season. The resources needed to effectively monitor compliance would be staggering. OSHA doesn't have those resources.

1	Given the small risk and OSHA's inadequate
2	resources to police the rule, the question becomes why
3	did OSHA prioritize this rule, this proposal during the
4	prior administration? The proposal was a publicity
5	stunt and many that many people believe, including
6	in the business community, in the Biden
7	administration's whole of government effort to
8	fearmonger about climate crisis, all to justify
9	handouts to special interests and the Inflation
10	Reduction Act. OSHA should abandon this effort.
11	OSHA's job is to protect safety and not become a
12	publicist for the green energy lobby.
13	OSHA's heat rule would also conflict with
14	President Trump's plan to cut red tape and restore
15	sound science, including the president's executive
16	orders on unleashing prosperity through deregulation
17	and restoring gold standard science. The question
18	becomes, then, what ten rules would OSHA repeal to make
19	room for the heat rule? And how would the billions in
20	annual costs be offset in OSHA's regulatory budget?
21	And how would OSHA reconcile the president's
22	instruction to avoid worst case scenarios with OSHA's

pronounced bias? The White House will want answers to these questions.

But the proposed heat rule is not just wrong, it also is legally vulnerable. First, the proposed rule exceeds OSHA's authority under the major questions doctrine. The proposed rule is economically and politically significant, and OSHA is asserting transformative authority to mandate paid rest breaks across American workforce. OSHA points to no clear authority. OSHA should not invite another defeat from the Supreme Court.

Second, OSHA misreads the Occupational Safety and Health Act. The proposed rule is a safety standard, not a health standard, so showing that the rule will not bankrupt industry is not enough. OSHA must also show that the safety benefits will exceed the cost.

OSHA fails to make that showing. OSHA can only pretend the rule does not -- does more good than harm by imagining fictional safety and productivity benefits and deflating costs at every turn.

Third, OSHA's heat index triggers are arbitrarily low. OSHA myopically focused on setting highly

1	sensitive triggers that insulate even the most at-risk
2	workers, while ignoring the need for high specificity
3	i.e., those a trigger that excludes healthy workers
4	that face no real risk. That biased approach is
5	unreasonable.
6	In sum, the rule is a regulatory overreach,
7	conflicts with President Trump's deregulatory
8	priorities, wouldn't survive judicial review, and
9	cannot be enforced with the agency's available
10	resources and should never be promulgated. It's too
11	late to consider reasonable alternatives now in this
12	rulemaking. The rule should not be issued and should
13	be withdrawn. That concludes my testimony. Thank you
14	for the opportunity to speak to you today.
15	JUDGE DONALDSON: Thank you. Mr. McGinley. Would
16	you hold for to see if we have any questions for you
17	from OSHA?
18	MR. TREMAIN: This is Ryan Tremain with OSHA
19	Standards and Guidance, and we do not have any
20	additional questions, Your Honor.
21	JUDGE DONALDSON: All right. Thank you. And from
22	the Solicitor's Office, any questions?

1 Jennifer Levin from the Solicitor's MS. LEVIN: 2 I do not have any questions for the witness, 3 but thank him for his time and testimony today. 4 JUDGE DONALDSON: Okay. And how about from anyone 5 else joining us from the public? Other testifiers? 6 Anyone? 7 MS. CARLON: There are none, Your Honor. JUDGE DONALDSON: Okay. I'm not sure if you're 8 9 still with us, Mr. McGinley, but thank you for 10 participating. And for your testimony, and we will 11 excuse you at this time. 12 MR. MCGINLEY: Thank you. 13 MS. CARLON: The next speaker is Catalina 14 Gonzalez. Please state your name and affiliation for 15 the record. 16 MS. GONZALEZ: Hello. Catalina Gonzalez, Senior 17 Policy Analyst at the Center for Progressive Reform. 18 JUDGE DONALDSON: Thank you, Ms. Gonzalez. If you 19 could speak up just a little bit. I heard you fine, 20 but I think a little bit more volume would help us. 21 And you can proceed with your comment. 22 MS. GONZALEZ: Good morning. My name is Catalina

1 I'm a Senior Policy Analyst at the Center Gonzalez. for Progressive Reform. The Center is a nonprofit 2 research and advocacy organization that is guided by a 3 national network of legal scholars and professional 4 5 staff with expertise in governance and regulation. We 6 appreciate the opportunity to comment on the proposed 7 rule and express our support for a strong federal standard for extreme heat protections for outdoor and 8 9 indoor workers. 10 Work-related heat illness, and injury is 11 associated with heat spikes -- is now associated with

12 more heat spikes in more states, increasingly over the 13 past few years, which have become more acute. 14 Businesses and places of work have to close if their 15 cooling systems failed. This is associated with heat 16 exhaustion, dizziness, illness and more serious injury 17 like heat stroke and organ shutdown, and -- and is 18 responsible for tens of thousands of illness and injury 19 events across the country every year, as well as thousands of fatalities. 20

Heat illness and injury also accounts for at least 2.5 billion lost work hours annually, and it is



21

22

estimated that \$100 billion in lost labor is also an unintended outcome that affects workers, employers, and has human costs. Extreme heat also has more -- more costs associated with health -- with more serious health impacts. A record -- this includes 967 heat-related illness emergency room visits, and 24 deaths that were reported in the State of Maryland in 2024.

Across many industries, many indoor and outdoor workers are temporary and seasonal. To account for this, we would like to recommend additions to strengthen this proposed rule to account for vulnerable groups. We would like -- we would like to ensure that the -- that the rule ensures protections for worker -- protections against retaliations for workers so that they can safely participate in their -- in their job without fear of job loss, deportation, or retaliation.

We would also ask that the rule accommodates for culturally and language accessible training, which -- and requires the employer to provide heat safety training in languages spoken by the workforce, including Spanish and indigenous languages. We would also ask that the rule provides adequate medical and

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

economic support and ensure paid leave and health care access for workers suffering heat-related illnesses, regardless of immigration status. And finally, we would ask that the -- we would ask that the rule adds definitions to specifically identify vulnerable groups and explicitly include protections for temporary and seasonal workers.

In addition, I would like -- also like -- urge that the rule add definitions for terms that are used more than two times or repeatedly in the text. We believe these additions will strengthen the rule and account for vulnerable populations that represent a large percentage -- large percentages of outdoor and indoor workers across the United States. We believe our country is still lacking a federal heat standard for workers, And we believe that this was -- that this should be -- that this rule should be completed and finalized in its strongest version without delay, which has which has been in development since the 1970s with extensive community input and extensive review. you very much.

Great.

JUDGE DONALDSON:

Thank you. Does OSHA

1 have any questions for this witness? 2 MR. TREMAIN: This is Ryan Tremain with OSHA 3 Standards and Guidance. Thank you, Ms. Gonzalez. Honor, OSHA does not have additional questions at this 4 5 time. JUDGE DONALDSON: All right. And so does the 6 7 Solicitor's Office have any questions? MS. LEVIN: Your Honor, Jennifer Levin for the 8 9 Office of the Solicitor. I do not have any questions 10 for this witness, but thank her for her time and 11 testimony today. 12 JUDGE DONALDSON: Right. I'll pause here to see 13 if there are any other questions. 14 MS. CARLON: There are none, Your Honor. 15 JUDGE DONALDSON: As everyone has said. 16 you, Ms. Gonzalez. I appreciate your participation, 17 and you can be excused. 18 MS. GONZALEZ: Okay. 19 MS. CARLON: The next speaker is Margaret Poydock. 20 Please state your name and affiliation for the record. 21 MS. POYDOCK: Can you hear me? 22 Yes, but if you could speak up, JUDGE DONALDSON:



1	that would be helpful.
2	MS. POYDOCK: Okay. Is this better?
3	JUDGE DONALDSON: Yes.
4	MS. POYDOCK: And apologies. I am having issues
5	trying to turn on my camera. Is that okay?
6	JUDGE DONALDSON: If you cannot, that's fine,
7	because we're hearing you well.
8	MS. POYDOCK: Okay, great. So this is Margaret
9	Poydock from the Economic Policy Institute.
10	JUDGE DONALDSON: Thank you. You can proceed with
11	your testimony.
12	MS. POYDOCK: Good morning, OSHA panel. My name
13	is Margaret Poydock, and I'm a Senior Policy Analyst at
14	the Economic Policy Institute, or EPI. EPI is a
15	nonprofit, nonpartisan think tank founded in 1986 to
16	research the economic status of working America and
17	propose public policies that protect and improve
18	conditions for low and middle wage workers.
19	Today, I'm testifying in support of OSHA's
20	proposed rule on heat injury and illness prevention in
21	outdoor and indoor work settings. In my testimony, I
22	will discuss the economic benefits of implementing a

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

heat standard, the economic harms of the United States lacking a federal heat standard, and the importance of implementing a strong heat standard on the federal level.

First, I would like to briefly discuss the economic benefits of the federal heat standard. Ву OSHA's own estimates, the proposed rule would provide 36 million workers with protections against extreme The proposed rule would help with worker productivity by establishing protections which help prevent heat-related illnesses and injuries. mitigating these risks, the proposed rule would reduce workers need to take additional days off to recover from the effects of heat exposure, which in turn helps limit disruptions in worker productivity. The proposed rule would also help foster innovation in the workplace by requiring certain employers to implement HIIPPs, which encourage employers to become innovative in ways they can protect workers against heat-related stress.

Moreover, not implementing a federal heat standard is costly -- financially costly for workers, employers, and the economy. While extreme heat can impact all

9

10

11

12

13

14

15

16

17

18

19

20

21

22

workers, it more adversely impacts outdoor occupations,
which are disproportionately held by workers of color.

One study by the Union of Concerned Scientists on the
impacts of extreme heat on outdoor workers found that
black workers lose up to 7.5 billion, and Latino
workers lose up to 16.1 billion each year in pay due to
cuts in hours and injuries.

Low wage workers also shoulder much of the harms associated with heat exposure. Research by the Washington Center for Equitable Growth found that low wage workers are more likely to in places — to live, in places with greater heat exposure, and experience heat-related injuries at higher rates.

There are also significant health care costs for workers exposed to extreme heat. A study by the Center for American Progress found that extreme heat costs the United States more than 1 billion in excess health care costs each year. Employers could experience increased costs in worker compensation premiums as workers -- as more workers experience heat-related injuries and illnesses and are out of work. Employers are likely to see a reduction in productivity due to worker

4

5

6

7

8

9

10

absenteeism and turnover caused by heat injuries, illnesses, and even fatalities.

The loss in productivity also impacts the U.S. economy as a whole. Researchers at both Public Citizen and the Atlantic Council have estimated that the lack of federal heat protections cost the U.S. economy nearly 100 billion each year, and the Atlantic Council estimates that those losses could double to 200 billion by 2030 if no meaningful action to mitigate against extreme heat is taken.

11 Finally, I would like to emphasize the importance 12 of enacting a strong heat standard. While states have 13 the ability to implement their own standards, very few have done so and they vary widely in strength and 14 15 coverage. As of this hearing, there are only seven 16 states with some version of a state-level heat 17 This means there are 43 states with no such standard. 18 standards, and further, Texas and Florida, arguably the 19 two of the hottest states of the United States, and 20 Iowa have preempted their own cities and localities 21 from implementing heat standards. Without a federal 22 heat standard, workers across the United States will

1 continue to experience a piecemeal approach at protections from extreme heat. 2 3 In closing, I strongly encourage OSHA to finalize 4 rulemaking and establish a federal heat standard. 5 Research shows that the lack of federal heat standard 6 poses substantial cost to workers, employers, and the 7 economy, and this includes the US economy losing 100 billion each year due to disruption in worker 8 9 productivity caused by extreme heat. Implementing a 10 strong heat standard, such as the one outlined in the 11 proposal, would not only protect millions of workers 12 from extreme heat, but also increase productivity and 13 spur innovation at the workplace. Thank you for the 14 opportunity to testify and I'm happy to answer any 15 questions. 16 JUDGE DONALDSON: Thank you. Let's see. 17 there any questions from OSHA? 18 MR. TREMAIN: This is Ryan with OSHA Standards and 19 And OSHA does not have additional questions 20 at this time. But certainly thanks, Ms. Poydock and 21 the Economic Policy Institute for this testimony. 22 All right. Any questions from JUDGE DONALDSON:



1	the Office of the Solicitor?
2	MS. LEVIN: This is Jennifer Levin from the Office
3	of the Solicitor. I do not have any questions for the
4	witness. Thank her for her time and testimony.
5	JUDGE DONALDSON: All right. Any other questions
6	for Ms. Poydock?
7	MS. CARLON: Yes, we have one from Ms. Arberry.
8	Please state your name for the record.
9	MS. ARBERRY: Hi. Chenay Arberry with the AFL-
10	CIO. Thank you, Margaret, for your testimony on behalf
11	of EPI. I just have two questions. I'm curious why it
12	is imperative to have consistent federal coverage
13	across divergent industries instead of relying on the
14	state by state approach.
15	MS. POYDOCK: Yeah, so extreme heat is experienced
16	by experienced all over across the United States,
17	and workers should be protected from it. As I noted in
18	my testimony, and we did note in our comments, some of
19	the hottest states in the nation haven't taken action
20	on protecting workers from extreme heat. And even
21	further, some states have preempted cities and
22	localities from establishing heat standards, while at



1	the same time not promoting anything on the state
2	level. So those are some reasons why it's important
3	for OSHA to implement a heat standard and provide a
4	baseline protection for workers.
5	MS. ARBERRY: Thank you. This is Chenay Arberry
6	with the AFL-CIO again. And then lastly, in taking a
7	look at your written comments or EPI's written
8	comments you speak about how, through a proposed rule,
9	business entities could prevent heat illness and spur
10	innovation through HIIPPs. So how do you see the
11	requirement for HIIPPs helping employers innovate to
12	protect workers?
13	MS. POYDOCK: Yeah. So in regards to
14	innovation in our comments, we note that employers
15	should solicit input from workers, which that in turn
16	can help foster innovation or at least provide or
17	create more effective HIIPPs, because then they can
18	tailor the plans requirements to the specific work site
19	or company based off of that input.
20	MS. ARBERRY: That's it for me, Your Honor. Thank
21	you, Margaret.
22	JUDGE DONALDSON: Thank you. Are there any other

1	questions?
2	MS. CARLON: There are none, Your Honor.
3	JUDGE DONALDSON: All right. Ms. Poydock, thank
4	you again for your participation. We'll go ahead and
5	excuse you at this time.
6	MS. CARLON: The next speaker is Alexis Tsoukalas.
7	Please state your name and affiliation for the record.
8	DR. TSOUKALAS: Yes. Hello, Dr. Alexis Tsoukalas,
9	Senior Policy Analyst at Florida Policy Institute. And
10	I'm a - we are a nonprofit, nonpartisan research
11	organization focused on state policy. So I focus on
12	immigrant and worker justice issues. And I'm here
13	today for two reasons. Thank you for having us.
14	First, to briefly reiterate the need for uniform heat
15	illness protections, which some people touched on, and
16	that's bolstered by our analysis of the issue here in
17	Florida, one of the hottest states that Margaret did
18	mention. And two, to speak in favor of this proposed
19	rule, albeit with some recommended changes.
20	So last year we started assessing the scope of
21	heat-related illness, or HRI, in Florida and how it's
22	impacting the state. So obviously Florida is just one

1	state, but it's notable on this issue. And we found
2	that Florida leads the nation in heat-related illness
3	with the highest number. So over 31,000 of ER visits
4	and hospitalizations between 2018 and 2022 alone.
5	We're in the process of updating that data, but that
6	was, as of last year, the latest data available.
7	Now, these estimates are likely conservative. And
8	it's especially among working people who fear
9	retaliation or lack of meaningful follow through if
10	they report HRI to their supervisors. We know this to
11	be true of immigrants and temporary workers. But once
12	someone experiences HRI, once we know their body's
13	ability to tolerate heat is often significantly
14	reduced. And so that makes repeated HRI more likely.
15	So this is not only an issue for employers, but it's an
16	issue for hospitals and nearby health facilities as
17	well. And ultimately, those costs end up falling on
18	taxpayers if people cannot afford to pay for their own
19	care out of pocket.
20	So we also found that 5.8 million residents, just
21	here in Florida, are highly vulnerable to extreme heat.
22	And the reason for that is they have three or more

components of social vulnerability. That's based on the Census Bureau's community resilience estimates for heat. So some examples of social vulnerability components would be having an income to poverty ratio of less than 130 percent, being in a limited English speaking household, or having a significant disability, which impacts your activities of daily life. Now, in 20 of Florida's 67 counties, more than a third of residents are highly vulnerable to extreme heat. So that's significant.

Now drilling down to the population we're talking about here, of course, that OSHA is concerned with working people. Looking at U.S. Bureau of Labor Statistics data, we found that over 610,000 Floridians work in outdoor heavy occupations, meaning more than 55 plus some as high as 95 percent of the time is working outside. And those industries are mostly construction, amusement and recreation, and landscaping. Now, two of those top outdoor jobs are key drivers of the state economy, construction and amusement and recreation. And that's true just generally in larger parts of the US as well, given that we are a very service-heavy

1 economy.

Now because of HRI, Florida loses an estimated \$11 billion annually, just here in the state, in productivity. And because we are a large exporter of agriculture, that has profound impacts on the rest of the economy, too. Yet as Margaret touched on, Florida has no local or state regulation protecting working people from heat-related illness.

So there's a couple of reasons for that. The Florida legislature has failed to pass legislation that would be proactively educating employers on the perils of heat-related illness, and that's been true for several years now. Worse, the state last year passed HB 43 - 433, which actually blocks local governments, or preempts in legal terms, from requiring their local subcontractors to address the issue. And finally, Florida doesn't have an OSHA approved state plan so there's already a gap in workers coverage. So the federal rule would bridge a critical gap in protections for myriad working Americans, not just Floridians, but Americans in general.

And I just want to finish on touching on some of

12

13

14

15

16

17

18

19

20

21

22

1 the ways that OSHA's proposed rule could be improved 2 slightly. Now this is an important first step and we 3 appreciate that -- so with some minor adjustments. 4 one, I would like to see OSHA have the option for 5 anonymized input from workers, including in multiple 6 languages, so that immigrants don't have to fear being 7 targeted by raids or other retaliation. Similarly, making these rules available in languages other than 8 9 English and having designated interpreters on-site for 10 non-English speakers.

For indoor workspaces -- and we're talking a lot about outdoor workspaces, but I'm happy to see the rule does not neglect indoor workers -- there should be checks done at least hourly. And there -- we would like to see a trigger requirement at a certain temperature. For example, in California that temperature is 82 degrees Fahrenheit. When -- when it reaches that trigger, then these policies would go into effect and these protective measures.

Also, we'd like to see water available within 0.25 miles of the work location. Colorado does this, for example. That's for indoor and outdoor workers,

1	because research shows if it's more than a three minute
2	walk away, either a restroom or water workers are less
3	likely to access it and take the time. And I know I'm
4	over time. So the last thing I'll say is we would like
5	to see employers follow OSHA's HRI and first aid
6	measures to reduce an employee's body temperature
7	before emergency medical services arrive. We would
8	like to see that in the rule. So thank you for your
9	consideration of Florida Policy Institute's testimony
10	today.
11	JUDGE DONALDSON: Thank you to you as well. Let's
12	see if there are any questions for you from OSHA.
13	MR. TREMAIN: Yes. Thank you, Dr. Tsoukalas.
14	Your Honor, this is Ryan Tremain with OSHA, and we do
15	not have additional questions at this time.
16	JUDGE DONALDSON: All right. Any questions from
17	the Office of the Solicitor?
18	MS. LEVIN: Jennifer Levin from the Office of the
19	Solicitor. I do not have any questions for this
20	witness, but thank you very much for your time and
21	testimony today.
22	JUDGE DONALDSON: All right. Just let's make sure



1	there aren't any questions from members of the public.
2	MS. CARLON: There are not, Your Honor.
3	JUDGE DONALDSON: No questions pending. Okay.
4	Well, thank you Dr. Tsoukalas. Thank you very much.
5	And we'll let you be excused at this point.
6	MS. CARLON: The next speaker is Kameron Dawson.
7	Please state your name and affiliation for the record.
8	MS. DAWSON: Good morning. My name is Kameron
9	Dawson, and I'm the Legal Director of the Southern
10	Office for A Better Balance.
11	JUDGE DONALDSON: Good morning to you. You can go
12	ahead with your testimony.
13	MS. DAWSON: Thank you, Your Honor. And I
14	appreciate this panel's opportunity to allow me to
15	speak in strong support of the proposed rule for indoor
16	and outdoor settings. Like I said earlier, I'm the
17	Legal Director of A Better Balance's southern office.
18	A Better Balance is a national legal advocacy
19	organization that uses the power of the law to advance
20	justice for workers so that they can care for their
21	health and their loved one's health without risking
22	their economic security. We do this through a variety



of strategies, including policy advocacy, as well as having a free legal helpline for workers who have questions about their rights regarding accommodations in the workplace, as well as paid family leave and paid sick time.

And A Better Balance, encourages OSHA to promptly issue a robust, uniform federal rule regarding heat injury and illness prevention that will protect all workers from extreme heat, as we have seen in recent weeks and years, that temperatures across the country, whether you're in the Midwest, the North or the South, have faced devastating temperatures. And this has led to devastating health impacts for workers across the country. And so I testified today to recommend that OSHA continue with the strong comprehensive rule that they have set out.

These protections are not, you know, just going to provide flexibility for businesses and protect workers, but it's also going to improve productivity and ensure that workers can return home safely to their workers and continue providing for them financially. This clear, enforceable heat standard will also have a large

impact on many pregnant workers and workers who have vulnerable health conditions.

As some of my colleagues have stated earlier, we know that some pregnant people who are working may experience high-risk conditions if they are impacted by extreme heat for too long. This can include things like preterm birth, the possibility of miscarriage, as well as hypertension and other long and devastating effects that may impact themselves and their infants.

And when it comes to individuals with vulnerable heat -- with vulnerable health conditions, we've also seen the risk of heat stroke and heat-related death be one of the -- the number one factors when it comes to the workplace.

Now, I want to say that just last week we saw that 15 million people were under extreme heat warnings or advisories across eastern California, Nevada, Arizona and also in Texas. And what we've seen, especially in the South, is that workers who are in low income earning positions, in rural and urban areas alike, really are working in workplaces that do not have heat trainings available to them, let alone access to paid

9

10

11

12

13

14

15

16

17

18

19

20

21

22

rest breaks. And so this standard that OSHA is

currently proposing can help fill a gap for those

employees to ensure that they can talk to their

employer about their health needs when they need to

take a break, and also ensure that they are not risking

their health while working and providing for our

country.

Now, our organization recommends that OSHA include a paid rest breaks, not just at the 90 degree threshold, but also at the initial heat trigger of 80 degrees, as we know that in some conditions, especially indoor work like kitchens, retail areas, and manufacturing, 80 degrees can be just as devastating as 90 degrees. So that is one recommendation we'd like to make.

And then again, I'd also say that it is imperative that in the rule, it includes the importance of worker participation in every stage of making the workplace safe. It can include creative solutions like worker task forces or a worker representative, that also can communicate with employers about some unknown factors that they -- that management may not be aware of. And

this kind of input is critical for really building that culture of safety and trust, so workers feel confident and encouraged to report health hazards in the workplace.

And lastly, I'll say that we have worked with a number of organizations over the years in trying to train workers on heat illness and stress. But what we've seen is a federal rule is necessary to ensure that workers across the country have this access to this necessary and critical protection. And we advocate for this training to be culturally competent and in languages that are accessible to workers, but also that there is a flexible standard to make sure that gaps in that knowledge can be addressed through the work -- the OSHA rule.

And lastly, I'll just say that, you know, OSHA really should ensure that all covered employers, regardless of their size, include a basic heat safety plan to their employees in writing. This is something that is not just going to protect workers, but it's going to ensure productivity for those workplaces. And we thank you again for this time to testify in -- in

1	support of the strong OSHA rule. Thank you.
2	JUDGE DONALDSON: All right. Let's see. Does
3	OSHA have any questions for Ms. Dawson?
4	MR. TREMAIN: This is Ryan Tremain with OSHA. We
5	want to thank Ms. Dawson and A Better Balance for your
6	testimony today, but do not have additional questions.
7	JUDGE DONALDSON: Office of the Solicitor, any
8	questions?
9	MS. LEVIN: Jennifer Levin from the Office of the
10	Solicitor. No questions for me. Thank you very much
11	to the witness for her time and testimony today.
12	JUDGE DONALDSON: Let's see if there are any
13	questions from members of the public?
14	MS. CARLON: There are none, Your Honor.
15	JUDGE DONALDSON: Ms. Dawson, thank you as well
16	for your testimony. Much appreciated.
17	MS. DAWSON: Thank you.
18	MS. CARLON: The next speaker is Grace Wickerson.
19	Please state your name and affiliation for the record.
20	MS. WICKERSON: Hi, everyone. Grace Wickerson,
21	Federation of American Scientists.
22	JUDGE DONALDSON: Welcome and you can go ahead

3

4

5

6

7

8

9

with your testimony.

MS. WICKERSON: Great. Thank you all so much for the time to speak with you today. The Federation of American Scientists, we are a recognized thought leader and relationship builder on heat policy, preparedness, and resilience. And through our trusted hub of heat policy efforts, we have a contingent of 350 individuals and a hundred organizations that are tackling heat from different angles.

10 In January of 2025, we rallied a group of 11 organizations to sign on to the 2025 Heat Policy 12 Agenda, which is a strategy for government to prepare, 13 manage, and respond to extreme heat. Our signatories, 14 70 in total, support the promulgation of a strong 15 federal heat standard to protect workers that 16 guarantees paid rest, cold water and shade, as well as 17 acclimatization protocols. We agree with the concerns 18 here raised -- that have been raised by industry, that 19 a patchwork of state rules and laws does layer 20 burdensome and conflicting requirements onto national 21 employers.

22

Similarly, OSHA cannot promulgate a rule that

1 varies from employer to employer to the point that workers will face a patchwork of inconsistent layers of 2 That's why it is critical that we 3 protection. 4 promulgate in this proactive approach and secure a 5 national rule. 6 The conversation here is how do we design the 7 floor that will protect workers from the impacts of high heat and is feasible for employers to implement. 8 9 From the scientific evidence, rest, cold water, and 10 shade are some of the most effective strategies for 11 preventing heat-related illness on the job. 12 Acclimatization is also a critical practice that 13 ensures that new employees are ready for the conditions 14 of the workplace. And it's critical because 73 percent 15 of heat-related fatalities happen in the first week on 16 the job. 17 OSHA's feasibility standards determine whether an

OSHA's feasibility standards determine whether an industry can reasonably implement and afford the controls necessary to protect workers from hazards.

That is, technological and economic feasibility.

Protections from extreme heat are simple technologies that are cost effective -- rest, cold water, and shade.

18

19

20

21

22

These can be successfully integrated into business workflows with careful planning and in a way that can be cost saving.

It is essential that workers have these protections guaranteed when it's hot outside. The frequency of heat-related illness starts increasing significantly at a heat index of 80 degrees Fahrenheit, which is the lower trigger threshold proposed in the standard. The requirements of the lower trigger are simple -- again, rest, water and shade. And there's ample flexibility to tailor a program that works best for the job site. Businesses on this hearing have already acknowledged that these protections are the minimum for protecting workers from extreme heat.

A purely performance-based standard, that has been discussed throughout this hearing, and is the one that is currently promulgated in Nevada, is only as good as the commitment of employers to implement it. It would not be effective in reducing deaths and injuries, as we have heard from the experiences of regulators in other states. And as Mr. Schneider noted yesterday, it would not provide the minimum protections legally required in

an OSHA standard.

And I just want to say we understand that

businesses, especially the small and medium enterprises

that form the economic backbone of America, are

concerned about the cost of compliance with such a

rule. However, we emphasize that the discussion

shouldn't be about the cost of the rule in a vacuum.

It must be about the cost of the rule versus the cost

of doing nothing. The Atlantic Council, which is a

widely cited study, estimates that every year the US

businesses are facing \$100 billion in lost labor

productivity due to extreme heat.

And more broadly, there are economic impacts that are not being considered that should be integrated as we think about the cost of this rule. Low wage workers are more likely to be insured or -- uninsured or publicly insured. This means that the cost of these workers heat-related illnesses and deaths is a growing burden on the health care system and our public coffers that are paying the costs of the business sector's inaction.

The broader insurance sector is also exposed to

the risks of a lack of action and is taking note. A major reinsurer, Swiss Re, recently said that extreme heat was one of their emerging threats in 2025, one of the only extreme weather threats they acknowledged on this list.

If an effective floor is not established now, we can expect it to be promulgated by the private sector to mitigate the increasing risks to their bottom lines, to the financial detriment of vulnerable businesses that might see their health insurance policies, life insurance policies, workers' compensation policies increase due to this risk. When there is 9 billion a year to be saved by reducing heat-related injuries, illnesses and deaths, that will be saved in some manner. And it would be better to be proactive by establishing this strong rule.

In closing, if the challenge is the technical assistance necessary for effective implementation, that can be addressed after rule promulgation, with industry guidance and consultation, targeting the businesses that need it most. That current knowledge gap can be solved and should not stand in the way of implementing

1	commonsense, evidence-based protections. Thank you so
2	much for your time.
3	JUDGE DONALDSON: All right. Thank you. OSHA, do
4	you have any questions?
5	MR. TREMAIN: This is Ryan from OSHA. And yes,
6	OSHA does. For that question, I'd like to turn it over
7	to Tiffany DeFoe.
8	MS. DEFOE: Hi, this is Tiffany DeFoe with the
9	Directorate of Standards and Guidance, OSHA. So in the
10	written comments that you submitted, you had a
11	statement that the rule can and should incorporate
12	thoughtful provisions to minimize the cost of
13	compliance while still ensuring strong protections for
14	workers. For instance, OSHA should develop clear
15	guidelines and compliance tools to help employers
16	adhere to new standards and ensure widespread adoption.
17	And in that text, you hyperlinked to a paper entitled
18	"Exploring the state of health and safety management
19	system performance measurement in mining
20	organizations", published in Safety Science in 2016.
21	And I'm just I'd just like to ask whether, now
22	or in post-hearing comments or both, I wonder if you

1	could provide some further discussion about what
2	aspects of that paper you wanted to draw our attention
3	to if the agency moves forward to finalize a heat rule?
4	And furthermore, if there is further literature on
5	health and safety management systems and the assessment
6	of their performance that you'd like for us to be aware
7	of?
8	MS. WICKERSON: That's a great question. I would
9	be happy to do a deeper dive in the post-hearing
10	comments to fully address and answer that question that
11	you have. I think our our focus here is on you
12	know, once this rule is promulgated in the strong
13	manner that we are recommending, that we can design a
14	full suite of tools and systems to make it as easy as
15	possible for businesses to comply and adhere. So I
16	would be happy to to do a review of that literature
17	and broader literature that we've collected from our
18	experts and give you a full full debrief in a in
19	a comment there.
20	MS. DEFOE: Look forward to it. Thank you.
21	That's all I have.
22	JUDGE DONALDSON: All right. Any other questions

1 from a member of the OSHA panel? 2 MR. TREMAIN: No, Your Honor. This is Ryan with 3 OSHA Standards and Guidance and that concludes OSHA's 4 questions. 5 JUDGE DONALDSON: All right. Office of the 6 Solicitor. Do you have any questions? 7 MS. LEVIN: Jennifer Levin from the Office of the Solicitor. No questions for the witness. Thank you 8 9 very much for your participation today. 10 JUDGE DONALDSON: Let's make sure. Were there any 11 members of the public have a question for Ms. 12 Wickerson? 13 MS. CARLON: There are not, Your Honor. 14 JUDGE DONALDSON: Okay. Ms. Wickerson, thank you 15 very much for your testimony. 16 MS. CARLON: The next speaker is Gloria E. 17 Unfortunately, we do not see your name in the Barrera. 18 attendee list. So if you've joined under a different 19 name, please use the raise hand button to indicate your 20 presence and if you have called in, please use star 21 three to raise your hand. 22 Our next speaker is Carol Lindsey. Please state

14

15

16

17

18

19

20

21

22

1 your name and affiliation for the record.

2 MS. LINDSEY: Yes, good morning. I'm having 3 trouble getting the camera on, so I'll just speak. Му 4 name is Carol Lindsey. I'm a family nurse 5 practitioner; I live in Florida. And I'm also a member 6 and ambassador affiliated with the Florida Clinicians 7 for Climate Action. I will be representing today -them today -- talking for them. The Florida Clinicians 8 9 for Climate Action is an organization involved in many 10 activities, including educating health care workers, 11 patients, and the community on heat illness and its 12 prevention and treatment.

First, Florida Clinicians for Climate Action wants to thank you all for this opportunity to speak today about the proposed rule on heat injury and illness prevention in outdoor and indoor work settings. We recommend that this be implemented as a rule and not just a guideline or an unenforced regulation. My testimony will be focusing on workers in an outdoor setting, and will illustrate why this proposed rule regarding heat injury and illness prevention needs to be a federal rule and not voluntary.

1	On January 1st, 2023, a 28-year-old worker from
2	Mexico with a work visa started his new job at C.W.
3	Hendricks Farm in Parkland, Florida. The newly arrived
4	worker was placing wooden stakes in the ground to
5	support bell pepper plants. Struggling to keep pace
6	with more experienced farmworkers, he complained of
7	fatigue and leg pain as the area's heat index neared 90
8	degrees. Sometime later, coworkers found him
9	unresponsive in a shallow drainage ditch. The worker
10	eventually died. The Labor Department said, in a news
11	release, and I quote, "like several coworkers, he
12	experienced symptoms related to heat illness".
13	Also, according to an investigation by the
14	Department of Labor's Occupational Safety and Health
15	Administration, they concluded that the death was
16	preventable. So this 28 year old's death was
17	preventable. He died on his first day of work. Maybe
18	if he'd had the opportunity to acclimate to the heat,
19	like working a few hours a day for the first few days,
20	resting, and then gradually working up to a full
21	workday in the heat, or acclimating, he might still be
22	alive.

Another example. Around midday on July 6th, 29
year old Efrain Lopez Garcia told his coworkers that he
didn't feel well. The workers weren't sure what to do.
Their bosses, they said, had never trained them on how
to recognize the signs of heat stroke or administer
first aid in an emergency. So they did what they could
do, and the coworkers moved him to a shady spot in the
grove where they had been picking fruit and sat him
down. They said they gave him water and they left him
there to rest, but it was too late. When his coworkers
came back to check on him, he wasn't even there.
Apparently, he had stood up, disoriented, and
wandered off. His coworkers found him a few minutes
later, several yards away, lying on his stomach, dead.
Efrain Lopez Garcia apparently had survived, before
this, eight sweltering summers as a farmworker in
Homestead, Florida. But on July 6th, 2023 at that

Efrain had experienced fatigue and leg pain cramps, both symptoms of heat illness and a change in

point, it was a hottest day on Earth since 1979 --

Lopez Garcia died on the job and was the second

farmworker known to die in South Florida in 2023.

mental status, disorientation, a symptom of heat stroke, the most serious of all the heat illnesses. He was working outdoors on the hottest day of the year, at that time, where the summer temperatures in Florida were very high and so was the humidity, making the heat index, or feels like temperature, hotter than the actual temperature.

His coworkers perform some of the correct first aid by taking him to a shady spot and giving him water, since he was still conscious and he could drink. But they also could have cooled him off with water and ice and called 911, since a heat stroke can cause death or permanent disability without proper treatment.

Additionally, his coworker and supervisor had -if they had known and recognized that he was probably
experienced some of these signs of heat illness, he may
still be alive. His supervisors and coworkers could
have received mandated education on how to prevent heat
illness, recognize the signs and symptoms, and
administer first aid. And this 29 year old man might
still be alive today. Because heat illness is
preventable, but it requires heat illness education.

1	Heat and dehydration can also worsen chronic
2	diseases like others have mentioned, like heart
3	disease, hypertension, kidney disease, and diabetes.
4	It can cause the onset of new medical conditions like a
5	heart attack, and exacerbate underlying chronic
6	diseases like those I've mentioned. In addition, there
7	are some vulnerable populations, as other people have
8	mentioned also, such as elderly workers and pregnant
9	women that are working outdoors in the extreme heat.
10	Studies have shown that pregnant women working in
11	extreme heat can have preterm labor and low birth
12	weight babies, among other issues.
13	Extreme heat can not only affect someone's health,
14	but it may result in decreased productivity,
15	absenteeism, and reduced economic income for employers
16	and the communities. According to one report, quote,
17	"heat induced declines in labor productivity account
18	for a hundred billion annually in the United States on
19	average, and without action, productivity losses could
20	reach 200 billion by 2030 and 500 billion by 2050".
21	And it doesn't look like this extreme heat is

going away. According to a recent report by the World

Meteorological Organization, global climate prediction show temperatures are expected to continue at or near record levels in the next five years. Plus, as someone also mentioned earlier heat is the leading weather-related killer in the United States. So this is the time for us to act. Heat illness is preventable.

As mentioned earlier, also by other speakers, other states like California, Colorado, Minnesota, and Nevada have established heat specific labor standards to protect their workers and their states. I'm from Florida, and as mentioned, our state does not have protective heat standards or regulations. But as we know, there is currently no federal standard specifying the protections that employers must provide under conditions of extreme heat.

OSHA can help save lives, the lives of outdoor workers and indoor workers exposed to heat also -extreme heat -- by providing a specific mandatory federal standard like that one that is proposed to prevent illnesses for outdoor workers. These protections have to be mandatory. There already are some employers that are providing these protections and

1	some states, as previously said, but a lot of them
2	aren't.
3	So if it was mandatory, this would cause them to
4	protect these extreme the workers from this extreme
5	heat. So thank you, Your Honor. And thank you to the
6	participants for giving me the opportunity to speak on
7	behalf of the Florida Clinicians for Climate action.
8	JUDGE DONALDSON: Thank you as well. OSHA, do you
9	have any questions for this testifier?
10	MR. TREMAIN: This is Ryan with OSHA. Thank you
11	very much, Ms. Lindsey. Your Honor, we do not have
12	additional questions at this time.
13	JUDGE DONALDSON: Anything from the Office of the
14	Solicitor.
15	MS. LEVIN: Jennifer Levin from the Office of the
16	Solicitor. I do not have any questions for Ms.
17	Lindsey. Thank you very much for your time and
18	testimony today.
19	JUDGE DONALDSON: All right. Let's check and see
20	if there are any other questions from another
21	participant.
22	MS. CARLON: There are none, Your Honor.

1	JUDGE DONALDSON: All right. That that would
2	conclude your testimony, Ms. Lindsey. Thank you very
3	much.
4	MS. LINDSEY: Thank you.
5	MS. CARLON: Next speaker is Michael Luther.
6	Please state, your name and affiliation for the record.
7	MR. LUTHER: Hi. Yes, I'm Michael Luther, and I
8	am CEO and co-founder of MX3 Diagnostics based here in
9	Austin, Texas.
10	JUDGE DONALDSON: Thank you for joining us. You
11	can go ahead with your testimony.
12	MR. LUTHER: Thank you, Your Honor. We do support
13	a federal heat standard and appreciate OSHA's efforts
14	to this end. And I really appreciate the opportunity
15	to to speak today.
16	As you can see from this cover slide, I wanted
17	to to discuss a concept that some may be familiar
18	with, some may not. And that's the very simple idea of
19	hydration testing, which is assessing individual
20	dehydration levels proactively, which can make a huge
21	difference in protecting employees on work sites around
22	the world. I think our previous speaker gave some



really unfortunate and -- situations that could have been prevented by certain proactive steps. And we believe hydration assessment is one of those steps that could have played an important role in protecting these unfortunate individuals. If you go -- go to the next slide, please.

So we're all aware of the impact that dehydration has on accelerating heat-related injuries. OSHA has done a wonderful job in establishing concepts of water, rest, and shade in protecting workers in lots of different environments. We believe that an additional concept to be explored is the idea of assessing hydration, especially when we look at individuals that are unacclimatized, like some of the individuals we just discussed. And then any employee working above the -- the heat trigger is especially vulnerable and is a good candidate for -- for proactive assessment. If you can move to the next slide.

Unfortunately, access to fluids doesn't ensure worker hydration. We can't make people take certain action. We can give them the opportunity, but that doesn't mean that everybody's going to be proactive to

1	protect themselves. Sometimes it's a lack of
2	understanding and sometimes it's just a lack of
3	willingness. But we do know that roughly half of
4	industrial workers start their shifts dehydrated.
5	And and and as work begins and sweat losses
6	occur, it's very difficult to keep up with the losses
7	of sweat just from drinking on a consistent basis.
8	Dehydration and rehydration also differs for every
9	individual. Some people can maintain hydration levels
10	longer than others. We know that about a third of the
11	general population is chronically dehydrated. So these
12	kinds of things coming together really creates the risk
13	that we see in these work sites. If you can move to
14	the next slide.
15	So I wanted to just discuss today this the
16	impact that direct hydration can have on individuals.

impact that direct hydration can have on individuals.

And probably the next slide and we can leave it here.

This will be the last slide I need to show you all today, which is the idea that at the beginning of a shift or after a rest break, we look at a job site and we see our workforce on the left.

22 And this means basically - this is how we see

17

18

19

20

21

2

3

4

5

6

7

workers today, and this is how we see people working amongst us and ourselves on job sites. With proper hydration assessment, we actually see people in a very different way. And if - on the right, the way my company color codes our results is you know, green, yellow, orange and red, that's increasing levels of dehydration.

And the only way to know how a work cohort is 8 9 currently -- their dehydration or hydration status 10 is -- it's very difficult to tell just from looking at 11 somebody from the outside, what's really going on 12 inside the body. And -- and so the limitations of 13 water, rest, shade is after a -- after a rest break, 14 you have people -- the time is up; it's time to get 15 back to work. But this group on the right, you can see 16 how some people are ready to get back to work and some 17 people are not. And being able to flag those individuals that are most at-risk and take proactive 18 19 action, sit them down, make sure that they've taken 20 appropriate time to either rehydrate or rest --21 extended time and rest, or even stop their day of work 22 can prevent those issues from accelerating on an

individual level at the work site.

And our company today is one of a handful of companies really pioneering in this space, which is why some of you may not be familiar with the concept of proactive hydration testing, but it's being used around the world -- not just us, but other companies. MX3 has over 500 large enterprises using this this solution around the world. We've run over seven million tests so far. We have saved lives and we have significantly reduced on-site workforce injuries and heat-related issues over the last three years since we introduced the product.

And this is just a really important element that we think that the OSHA committee should be aware of, and we're happy to support in any way we can -- better education, understanding of these types of solutions and how they can -- how they can impact positively the workforce under these heat-related issues.

JUDGE DONALDSON: All right. Thank you. If that concludes your statements you intended to give with the slideshow presentation as well, let's turn to OSHA to see if there are any questions for you.

1 MR. LUTHER: Great. 2 MR. TREMAIN: This is Ryan from OSHA. OSHA does 3 not have any further questions at this time, Your 4 Honor. 5 JUDGE DONALDSON: Okay. Any questions from the 6 Solicitor's Office? 7 MS. LEVIN: Your Honor, this is Jennifer Levin 8 from the Office of the Solicitor. I do not have 9 questions for the witness. However, I do request that 10 Your Honor, enter into the record the - the slides 11 presented by MX3 Diagnostics, Inc., Mr. Luther, and 12 I've marked them as Exhibit 15. 13 JUDGE DONALDSON: All right. Exhibit 15 is being 14 proffered, and that's submitted into the record of this 15 session. 16 MS. LEVIN: Thank you, Your Honor. 17 JUDGE DONALDSON: Thank you. All right. 18 see if there are questions from others present today 19 for Mr. Luther? 20 MS. CARLON: There are none. 21 JUDGE DONALDSON: All right. All right. 22 you, Mr. Luther, for your presentation.

1 MR. LUTHER: Thank you, Your Honor. Thank you 2 very much, committee. 3 JUDGE DONALDSON: All right. I'm checking with 4 our contractor to see if there's anyone that's been 5 added to this morning's agenda? 6 MS. CARLON: At this time, there is no one else that has been added. 7 I will recall one absent attendee and see if they have joined. I'm going to call Gloria 8 9 If you've joined under a different name, E. Barrera. 10 please use the raise hand button to indicate your 11 presence. And if you have called in, please use star 12 three to raise your hand. And Your Honor, at this 13 time, it looks like she is still absent. 14 JUDGE DONALDSON: All right. So having -- with 15 everyone's preparation and efficient use of the time 16 this morning, it looks like we're at the end of the 17 schedule for the morning session, so we will adjourn. 18 Unless there's any order of business from OSHA or the 19 Solicitor's Office to handle before we adjourn till the 20 afternoon? 21 MS. LEVIN: I have nothing. 22 Us here too. MR. TREMAIN:

1	JUDGE DONALDSON: Okay. Does the contractor have
2	any guidelines or suggestions for those willing to
3	or wanting to rejoin for the remainder of the sessions
4	this afternoon? I I don't hear anything. So we
5	will go ahead and adjourn. And I understand the
6	afternoon session will begin at 1:00 p.m. Eastern Time.
7	And if anyone's rejoining, they it's my
8	understanding they will use the same link provided for
9	the session that we've already used today.
10	MS. CARLON: That is correct, Your Honor.
11	JUDGE DONALDSON: All right. Well, that concludes
12	the morning. We'll go off the record.
13	(Lunch break.)
14	MS. CARLON: This is Mariam Carlon from ABT
15	Global, OSHA's contractor. It is 1 o'clock 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. Before
19	we begin, we'd like to go over some logistics for
20	today's public hearing.
21	As a reminder, all attendees are muted
22	automatically. All Webex attendees can access closed



9

10

11

12

13

14

15

16

17

18

19

20

21

22

captioning and translated captioning by clicking on the CC icon in the lower left-hand corner of the application. You can individually select your caption language if translation is required. I will now share the same slide in Spanish. All YouTube viewers will have access 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 group a few minutes before it is your time to provide testimony. Once promoted to the panelist 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 have been asked to start your testimony. Speakers

connected by telephone should unmute their phones when called to testify.

Dependent on timing, there may be opportunities to ask questions of any other given speakers -- speakers giving testimony. 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 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 speaking group will be Michigan Clinicians for Climate Action, represented by Steven Ashmead, Elizabeth Del Buono, and Larry Junck. Please state your name and affiliation for the record as you all move throughout your testimony.

1 DR. DEL BUONO: Hello. Can you guys hear me okay? 2 JUDGE DONALDSON: We can, yes. 3 DR. DEL BUONO: Okay. Great. And Dr. Junck, are you going to go first or shall I? I'll go ahead. 4 Hi. 5 Thank you for giving me time to testify today. My name 6 is Dr. Elizabeth Del Buono, and I'm a retired physician 7 who trained and practiced pathology for over 30 years in Michigan. I'm also the founder and board chair of 8 9 Michigan Clinicians for Climate Action, or MiCCA, which 10 is a coalition of approximately 400 health 11 professionals from across the state of Michigan that 12 educates and advocates for climate solutions that are 13 also health solutions. Dr. Steve --14 DR. JUNCK: Do you mind if I -- I'm now unmuted. 15 Would you mind if I proceed? 16 DR. DEL BUONO: No, I don't mind at all. 17 ahead. 18 DR. JUNCK: Thank you. So I am Dr. Larry Junck. 19 I'm a neurology physician who is mostly retired after a 20 long career of patient care, teaching and research. 21 I'm speaking in favor of strong rules to protect our 22 Like Lisa, I'm with MiCCA, Michigan workers.

Clinicians for Climate Action, a nonprofit whose
members share concerns about the effects of present and
future effects of climate change on human health. I
will be followed by Lisa and by Dr. Steven Ashmead,
also from MiCCA.

I'm sure everyone listening today knows that climate change is causing our temperatures to rise with no end in sight. 2023 was a year without precedent for global heating, setting a new high temperature record in each of its 12 months, the hottest January on record, the hottest February on record, and so on. It was the total hottest year on record by about a third of a degree Centigrade, reaching 1.5 to 1.6 degrees Celsius -- that's 2.7 to 2.9 degrees F above our historical norms. Some people thought the heat of 2023 was a fluke, but lo and behold, 2024 was even hotter.

To put this in perspective, the 2015 Paris Climate Agreement, to which the US was a party, established the goal of limiting the global temperature increase to well below 2 degrees Celsius, while pursuing efforts to limit the increase to 1.5 degrees. Unfortunately, the world continues to heat up. We've surpassed the 1.5

degree target, and we are now on track to meet the limit of 2.0 degrees.

To say that our world is steadily heating is an understatement, because the heating actually appears to be accelerating. Unfortunately, this means that the susceptibility of our good American workers to heat is worsening over time.

Let me briefly consider some of the body's physiologic responses to prolonged direct heat. One is increased sweating. This is a good thing because the evaporation of sweat helps to provide a cooling effect, but it can lead to problems. The most obvious is dehydration. It's imperative that people working in hot conditions take extra fluids. Another is low sodium in the blood, which can in turn lead to seizures and mental confusion. This is a problem well known among marathon runners and other athletes, partially preventable by taking salt tablets.

Activation of the body's sympathetic nervous system occurs during extreme heat with rapid heart rate -- heartbeat as one of its best known indicators.

Rarely, this can lead to abnormal heart rhythms.

Prolonged application -- prolonged activation of the sympathetic nervous system can lead to inflammation throughout the body, which in turn can increase plaques of atherosclerosis -- hardening of the arteries. And rupture of these plaques can be the cause of heart attacks and strokes.

Prolonged sympathetic activation also leads to suppression of the immune system, leaving the body more susceptible to abnormal infections. Some of these problems could occur in amateur or professional athletes when they practice or compete in hot weather, but athletes have several advantages. They tend to be young and fit, whereas workers are of a wide range of ages. Also, athletes work out for, at most, a few hours with breaks, while workers are typically on duty for a full workday.

The more common health situations caused by prolonged heat are heat exhaustion and heat stroke.

These can be prevented by limiting exposure to prolonged heat, by taking breaks, and hydrating well.

As a neurologist, I'm especially aware of other problems involving the nervous system associated with

high heat. One is stroke. There is strong evidence
that high heat exposure increases, temporarily, the
risk of stroke. Another is worsening of multiple
sclerosis, a fairly common neurological problem.

My specific recommendation is to enact reasonable but stronger rules to ensure the health and safety of our workers. Doing so is not only in the interest of our workers, but also in the interest of their employers, so that our workers can stay healthy and on the job. And in the interest of our economy, so that Americans are adequately fed and have the products and services we know and enjoy. It's also in the interest of our health systems, so that they do not become overly burdened by the preventable problems caused by heat complications in our workers. Thank you. And back to you, Lisa.

DR. DEL BUONO: Terrific. Thank you so much,

Larry, for doing that. And I won't go back through my

introduction, but simply say, as has been stated -
just a second, I'm going to move the timer.

As has been stated in these hearings many times now, heat-related illness is a leading cause of

weather-related deaths in the U.S. As conditions warm and become more humid, deaths from heat will only increase. Most of the deaths can be prevented, and as such, we applaud OSHA's new heat injury and prevention standards and have only a few suggestions for how they can be strengthened.

Since education is a critical first step, we feel that requiring all employers to enact heat illness and injury prevention plans is essential. We think it should be required that these plans be in writing and translated to languages spoken by employees in a given business. We encourage OSHA to provide assistance to small businesses that may lack the capacity to draft their own.

Now, as a retired pathologist who spent more than three decades diagnosing disease, I'm going to review some of the pathophysiology that Larry has already hit on. Heat and humidity combined to make conditions unsafe, and heat stress is a medical emergency which can rapidly progress to lethal heat stroke unless workers' bodies are rapidly cooled and adequately hydrated. As body temperatures rise, sweating ensues.

2

3

4

5

6

7

8

10

11

12

13

14

15

16

17

18

19

20

21

22

Cooling occurs through a process of evaporating sweat, as Larry mentioned, from the surface of the skin, but under human condition -- humid conditions, which is only becoming more prevalent as the climate warms, that interferes with evaporation of sweat and makes it more difficult for the body to cool.

In addition, when the core temperature rises, blood vessels throughout the body dilate to bring blood to the surface of the skin to aid in cooling. requires a large volume of blood to perform the same function, and so adequate hydration is necessary to maintain that blood volume and to ensure adequate perfusion of vital organs. It's not surprising that people with preexisting conditions like cardiovascular disease, renal impairment from diabetes, and pregnant women are at increased risk of acute and sudden unexpected death in extreme conditions. But to be clear, occupational heat-related illness is not only acute - an acute phenomenon, but it can lead to an acute on chronic situation, which results in impacts to heart and kidneys over time. Research indicates a link between occupational heat exposure and the development

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

of chronic kidney injury and cardiovascular disease as well.

In addition, some medications become less effective in warm temperatures, while other medications can interfere with their protective mechanisms that the body uses to regulate temperature. So under the new OSHA proposed standards, the employers are required to monitor for signs and symptoms of heat-related illness only when the heat index reaches greater than or equal to 90. Expert health professionals feel that threshold is too high, and we strongly encourage monitoring for signs and symptoms of heat illness at a lower threshold -- a heat index of greater than or equal to 80. We encourage supervisor observation and/or buddy system starting at 80 degrees, especially for new and returning workers that may have not been acclimated to heat.

So again, we're grateful to OSHA for proposing these new standards. We encourage that you finalize and implement them as soon as possible. We would encourage that the triggers start at 80 degrees rather than 90 degrees. And thank you for this time. I'll

1	pass it over to Steve.
2	JUDGE DONALDSON: Before you pass it to the next
3	speaker. Just repeat your name one more time for the
4	record, please.
5	DR. DEL BUONO: Sure. It's Dr. Elizabeth Del
6	Buono.
7	JUDGE DONALDSON: Okay. Thank you. Now we can
8	proceed to your next witness.
9	DR. ASHMEAD: Hi. My name is Dr. Steven Ashmead.
10	I am a family physician who has practiced family
11	medicine in west Michigan and am also a medical
12	educator for the past 30 years. As a result of this
13	experience, I have a broad understanding of the issues
14	we are discussing today. Occupational exposures, on
15	the job injuries, and most importantly, my expertise in
16	preventive medicine are central to this discussion.
17	After attending medical school in the hot, humid
18	environment of Houston, Texas, I initially assumed that
19	the temperate climate of the Upper Midwest that
20	heat-related illnesses would not be an issue. My
21	initial preconception was wrong. Since my arrival in
22	1980, the climate has changed. GLISA, the Great Lakes

Integrated Science and Assessment Center at the
University of Michigan, shows that since 1951, annual
average temperatures have increased by 2.9 degrees
Fahrenheit. Projections from GLISA shows that future
temperatures will continue to rise by 6 to 11 degrees
Fahrenheit throughout the region by 2100.

Using their extended heat index, which factors in extreme heat and humidity, Lu and Romps in their 2022 article documented that most -- the most physiological stressful heat waves in the contiguous United States occur most often in the Midwest. Previously -- this has been historically noted in the Great -- Great Lakes areas in 1995 and 2011, with significant number of deaths noticed.

As Dr. Junck and Dr. Del Buono and other speakers have documented, exposure to extreme heat rapidly results in significant pathological, physiological changes on the body, including cognitive changes that could potentially make it difficult for the workers to recognize their deteriorating status. It is estimated that the body takes up to two weeks to adapt to hotter temperatures. The unpredictable - unpredictability and

intermittent nature of Midwestern heatwaves could make it difficult for workers to adapt to these heatwaves, especially workers who begin - begin their employment during the heat wave.

OSHA heat mortality data since 2011 describes that 73 percent of fatalities were in workers that were within three days of starting a new job. 71 percent of total worker deaths occurred on the day that they had their initial symptoms. Additionally, it is estimated that 20 to 30 percent of Michigan households do not have air-conditioning. This would make it difficult to -- for workers to recover after work exposure to excess heat.

Just as we in the Midwest and much of the United States has experienced in the last week, heat waves will only become more unpredictable, earlier in the year, and more extreme with global warming. The rapid cognitive decline that can occur with exposure makes it critical that appropriate supervision is provided to stop the heat deaths that are already occurring and will only increase with increasing frequency of dangerous heat waves.

1	It is critical that we change the workplace
2	environment to protect workers from excess heat due to
3	the rapidly changing climate. Appropriate
4	interventions are providing supervision, shade,
5	hydration, and rest, as indicated, have been proven to
6	prevent excess morbidity and mortality. Thank you very
7	much.
8	JUDGE DONALDSON: Thank you all. Do we have any
9	questions from OSHA to any of the three testifiers?
10	MS. WANGDAHL: Thank you, Your Honor. This is Amy
11	Wangdahl, OSHA's Directorate of Standards and Guidance.
12	I would like to thank Dr. Junck, Dr. Del Buono and Dr.
13	Ashmead for their participation today and testimony on
14	behalf of MiCCA. We do not have any questions for the
15	panel today. Thank you.
16	DR. DEL BUONO: Thank you.
17	MR. JUNCK: Thank you.
18	JUDGE DONALDSON: How about the Solicitor's
19	Office? Is there anyone present who has questions from
20	that office?
21	MS. WILES: Thank you, Your Honor. Linda Wiles
22	from the Solicitor's Office. I don't have any



1	questions, but I would like to thank the participants
2	for participating in OSHA's hearing today.
3	JUDGE DONALDSON: Is there anyone present, a
4	member of the public who's in this hearing, who has a
5	question for the individuals from Michigan Clinicians?
6	MS. CARLON: There are none, Your Honor.
7	JUDGE DONALDSON: Okay. Well, then I'll thank
8	them at this time. Thank you very much for your
9	participation. And we'll move on to the next
10	testifiers.
11	MS. CARLON: The next speaker is Khadijah Ameen.
12	Please state your name and affiliation for the record.
13	DR. AMEEN: Hi there, I'm Khadijah Ameen, speaking
14	on behalf of BLKHLTH.
15	JUDGE DONALDSON: Thank you and welcome. And you
16	can go right ahead with your comments.
17	DR. AMEEN: Great. Hi. My name is Dr. Khadijah
18	Ameen and I am a public health practitioner, health
19	disparities researcher and worker justice advocate
20	based in Atlanta, Georgia. I am also Director of
21	Policy and Research at BLKHLTH, a Georgia based
22	nonprofit focused on improving the community health



conditions in which diverse black populations live,

work, and age. I feel honored to speak on record about

why a federal standard for heat injury and illness

prevention in outdoor and indoor work settings is vital

for the communities I'm a member of and work with and

for.

There are various factors -- structural,

geographic, physiological -- leading to disparities in

heat-related injury and illness experienced by black

workers and other workers of color in our country.

Research shows that communities of color that live in

historically zoned areas are more likely to have higher

rates of asthma and various chronic conditions like

cardiovascular disease. Workers with one or more

chronic illnesses are at increased risk of detrimental

health outcomes associated with extreme heat.

Pregnant workers are also vulnerable to heatrelated injury and illness in the workplace, and lack
of workplace heat protections in particular -- is
particularly concerning for this population, given the
United States' maternal mortality crisis, a crisis that
disproportionately impacts black and indigenous women.

Women and black, indigenous, and people of color communities, or BIPOC communities are also more likely to be essential workers. Essential workers like roofers, construction crews, agricultural workers, and delivery and transit drivers bear the direct health and safety consequences of extreme heat. Workers who perform these vital job functions in our country are often required to be in close proximity to extreme weather conditions and hazards.

Geographically, more black workers live in the southeast region of the United States than any other region in the country. The southern United States has experienced some of the greatest increases in the number of heat wave days in the United States, which has racial equity implications due to the number of workers of color in these states.

Every summer is becoming more dangerous for southern workers as average temperatures increase and extreme heat events become more frequent, intense, and lengthy. Millions of workers across the southeast, many of who are workers of color, are exposed to serious health hazards from rising temperatures. In my

1	own state of Georgia, over 1.7 million Georgia workers
2	work in high risk industries for heat-related harms.
3	Unfortunately, Georgia, like the rest of the entirety
4	of the southeast, does not have occupational heat
5	safety standards.
6	As extreme heat continues to worsen in my state
7	and across the country, strategies to mitigate exposure
8	and reduce health risks are increasingly important,
9	particularly for workers of color and other
10	disadvantaged populations, most at risk for heat
11	exposure and heat-related illness. The OSHA proposed
12	federal standard is vital for the well-being of workers
13	in states like mine that lack state-level heat
14	protections. Thank you for your time and
15	consideration.
16	JUDGE DONALDSON: All right. Thank you. Are
17	there any questions for Ms. Ameen?
18	MS. WANGDAHL: Thank you, Your Honor. This is Amy
19	Wangdahl with OSHA's Directorate of Standards and
20	Guidance. We do not have any questions today, but we
21	want to thank Dr. Ameen for her participation and
22	testimony on behalf of BLKHLTH today. Thank you.



1	JUDGE DONALDSON: And that means no questions from
2	the Office of the Solicitor as well?
3	MS. WILES: That's correct, Your Honor. Linda
4	Wiles for the Solicitor's Office. Thank you for your
5	participation today.
6	JUDGE DONALDSON: Let me inquire here to members
7	of the public, any if there are any questions for
8	Dr. Ameen?
9	MS. CARLON: There are none, Your Honor.
10	JUDGE DONALDSON: Thank you very much, Dr. Ameen.
11	MS. CARLON: Our next speaker is Shelley Mann-Lev.
12	Please state your name and affiliation for the record.
13	MS. MANN-LEV: Shelley Mann-Lev affiliated with
14	Healthy Climate New Mexico.
15	JUDGE DONALDSON: Apologize. Go right ahead. Is
16	it Ms. or Dr. Mann-Lev?
17	MS. MANN-LEV: It's Ms. Mann-Lev. Thank you.
18	JUDGE DONALDSON: Okay. You can proceed. Thank
19	you.
20	MS. MANN-LEV: Thank you so much. My name is
21	Shelley Mann-Lev, and I'm Executive Director of Healthy
22	Climate New Mexico, an organization of 300 healthcare



and public health professionals committed to advocating
for climate solutions to protect health and promote
equity. As a public health leader who's dealt with
many preventable public health problems, the gravest
one facing today -- that we're facing today is climate
change.

Preventable public health problems require

systemic, equitable solutions to protect all people. A

strong federal occupational heat standard is such a

solution. The science-based interventions outlined in

the proposed standard will help workers and families

avoid the terrible tragedies that can occur when

exposure to dangerous levels of heat cause injuries,

illness, and death.

New Mexico, where I live and work, is getting hotter. In fact, we're one of the fastest growing heat-affected states in the nation, and heat-related illnesses and injuries are increasing in a wide range of businesses and industries, both indoor and outdoor. Here are a few of the 232 complaints of heat-related workplace incidences reported by our state OSHA in recent years.

1	workers in a convenience store went without air-
2	conditioning for a month, including temperatures of 98
3	degrees, leaving them dizzy, nauseous and lightheaded.
4	Municipal waste workers working without personal
5	protective equipment or water were threatened with
6	retaliation if they reported issues to human resources.
7	Agricultural workers complained of being exposed to sun
8	and heat while doing their work. High school workers
9	of all kinds teachers, janitors, yard workers,
10	secretaries working in extreme heat conditions
11	without access to drinking water. Construction workers
12	using excavating machines and other heavy equipment
13	with broken air-conditioners, while management failed
14	to order parts to replace them.
15	No one should have to risk their health or their
16	life to earn a paycheck. Our federal OSHA has a
17	responsibility, and this rule would fulfill that
18	responsibility to protect the workers, those people who
19	do essential work, and all people from preventable
20	harms.
21	As New Mexico and the rest of the United States

gets hotter, the danger to our workers is accelerating.

1	Construction sites, chili fields, commercial kitchens,
2	classrooms workers across New Mexico are being
3	pushed beyond their physical limits, and we see the
4	consequences. It is estimated that in New Mexico state
5	of 2 million people, 250,000 workers are at risk of
6	heat stress and illness and injury.

We also see tremendous increases in emergency department visits for heat-related illness. 2010 it was 200 per year. Most recent year it was 900 per year. These are doubling. It is an acceleration that we can expect to see continue. Protections are needed now before more people are hurt and die.

As our previous speaker said, the risks are not borne equally. We need a strong, effective heat standard to address an unfair truth. Latine and other workers of color, as well as people who earn the lowest wages, experience the greatest health risks from extreme heat. Here in my state, the vast majority of workers impacted by heat are Latine, making up more than 80 percent of farmworkers, 64 percent of construction workers, and a disproportionately high representation in both landscaping and oil and gas

3

4

5

6

7

8

1 production.

These workers are three times as likely to die

from heat on the job compared to other workers. And in

terms of those who can least afford lost wages or

medical bills, those who are in the lowest 20 percent

of wage earners are five times more likely to suffer

from heat-related health problems than those in the top

20 percent.

9 Heat injury has devastating impacts, not only on 10 the workers themselves, but on their families and communities. 11 And these health impacts can be 12 cumulative and long lasting, with each exposure 13 increasing the risk of greater health harms, obviously 14 impacting health and economic well-being. The proposed 15 rule is not an extreme demand. It's about commonsense, 16 science-based protections for workers -- water, rest 17 breaks, shade, emergency response training, monitoring. 18 These are basic rights, and they're long overdue. Ι 19 urge you to act now to protect the health of New Mexico workers and all of our workers. Thank you so much for 20 21 your time.

JUDGE DONALDSON: All right. Does anyone on the

22

1	OSHA panel have any questions for Ms. Mann-Lev?
2	MS. WANGDAHL: Thank you, Your Honor. This is Amy
3	Wangdahl with the Directorate of Standards and
4	Guidance. We do not have any questions, but we want to
5	thank Ms. Mann-Lev for her participation today. Thank
6	you.
7	JUDGE DONALDSON: Are there any questions from the
8	Office of the Solicitor?
9	MS. WILES: Thank you, Your Honor. Linda Wiles
10	from the Solicitor's Office. I don't have any
11	questions as well. Thank you so much.
12	JUDGE DONALDSON: All right. Are there any
13	questions from the public?
14	MS. CARLON: Yes, Your Honor, we have one from Ms.
15	Arberry. Please state your name for the record.
16	MS. ARBERRY: Hi. Chenay Arberry with the AFL-
17	CIO. Hi, Ms. Mann-Lev, thank you so much for your
18	testimony. I'm just curious - over the last few weeks,
19	we've heard a lot of industry representatives reference
20	Nevada's heat rule as the model for flexibility. And I
21	know that your home state of New Mexico has been
22	developing a rule similar to federal OSHA's. Would you



consider federal OSHA's rule flexible? And can you describe how a standard without enforceable protections still leave workers compromised to heat, such as the Nevada standard?

MS. MANN-LEV: Thank you so much for your question. And that -- the proposed New Mexico rule, which has been worked on for the past three years -- and we are grateful for the federal OSHA work that was done to lay the groundwork to have such an outstanding recommendation to base this rule on -- includes specific guidelines, enforceable guidelines. We need to level the playing field so that all workplaces are safe for workers.

Unfortunately, without enforceable protections, we know that there are many businesses and industries that continue to practice in the way that they have. And that the role of OSHA and our worker protection agencies, in fact, is to set those standards, those basic public health guidelines and rules so that everybody can do what's needed to protect worker health. And so we, again, urge a strong -- to maintain the strong federal standard. There's always ways to

1 But what -- the foundation that's been improve things. 2 laid nationally through this proposed recommendation 3 will indeed provide tremendous protection from a public 4 health perspective for all groups. 5 MS. ARBERRY: Great. Thank you, Ms. Mann-Lev, and 6 thank you, Your Honor. 7 JUDGE DONALDSON: Thank you. Any other questions from the public? 8 9 MS. CARLON: There are none, Your Honor. 10 JUDGE DONALDSON: All right. Looks like that concludes your -- your testimony then. Thank you very 11 12 much. 13 MS. MANN-LEV: Thank you. 14 MS. CARLON: The next speaker is Joanne Leovy. 15 Please state your name and affiliation for the record. 16 My name is Joanne Leovy. DR. LEOVY: Hi. 17 physician, an MD. And I'm the Chair of Nevada 18 Clinicians for Climate Action. 19 JUDGE DONALDSON: All right. Please go right 20 ahead. 21 DR. LEOVY: Thank you. I'm a board certified 22 physician in Las Vegas, Nevada, and I've completed a

diploma course in Climate Medicine. Nevada Clinicians for Climate Action, my organization, organizes health professionals in our state on education and advocacy regarding climate related health impacts. I support the strongest possible occupational heat regulation as a means of ensuring that our state's employers and workforce are prepared to remain safe in the face of rapidly increasing numbers of extreme heat days.

Every worker heat death is preventable, and OSHA must act. Nevada has the nation's two fastest warming cities and is struggling to develop resilience provisions to protect our population. Southern Nevada recorded a record 527 heat-related deaths in 2024.

Occupational heat-related complaints rose from 210 in 2022 to 300 in 2023 and 467 for the first nine months of 2024.

In November 2024, the Nevada Division of
Industrial Relations approved an occupational heat
illness standard that went into effect in April 2025.
This regulation was developed in collaboration with
employers and industry, along with occupational and
health experts and community-based organizations.

Several measures in the Nevada standard mirror the proposed federal regulation, and I support their inclusion into OSHA's final rule.

One, requiring employers with ten or more
employees to conduct a job hazard analysis to determine
whether there is a risk of heat exposure, and when risk
is identified, to develop a heat illness prevention
plan to reasonably render employment and places of
employment safe from heat-related hazards. The plan
must account for the severity and duration of workload
and any protective clothing or equipment used by the
employee.

Two, mandating employee input into this written plan.

Three, mandating mitigating practices to reduce risk, including engineering controls such as shade, practice controls like shifting work to earlier hours, and personal protective controls such as cooling vests or individual body temperature monitors.

Four, mandating water and a means of cooling for all employees working under the plan, and additional rest breaks for those showing signs of heat illness.

	Five,	designati	ng a	person	to	carry	out	the	safety
pla	n, moni	tor workin	g cor	nditions	s, a	nd imp	pleme	ent	
eme	rgency	response p	roced	lures.					

Importantly, Nevada guidance for employee education includes assuring that employees understand their individual risks based on body habitus, chronic disease or conditions, medication, and substance use. The federal regulations should include this important provision and mandate that information be understandable based on employees' language facility and literacy.

OSHA should follow the Nevada standard in including radiant heat exposure in the rule. This is important because of the risk of pavement burns in part. Research from the University of Nevada, Las Vegas has shown that pavement -- pavement burn incidence increases exponentially in our climate with temperatures over 95 degrees Fahrenheit.

I believe that this federal draft offers

opportunities to protect Nevada workers beyond the

mandates of the state standard. The major difference

between the Nevada standard and the federal draft is

that the Nevada standard does not set forth temperature triggers, instead relying on less -- a less specific, one-time job hazard analysis. I am unaware of evidence documenting the effectiveness of this approach.

The draft OSHA proposal documents extensive evidence supporting use of a temperature threshold. So if any variation to the proposed temperature limits is contemplated, OSHA might consider examining Nevada's 2025 heat-related complaint data to look for any post-implementation decrease in worker complaints or heat-related incidents.

Furthermore, the Nevada standard suggests, but does not mandate, a period of acclimatization with modified job duties. I support mandated requirements for employee acclimatization due to data extensively documented in the draft OSHA proposal. Concerns that acclimatization periods are unnecessary because most employees are aware of the job position's heat exposure risk are counter to my experience as a primary care physician.

Many of my patients have worked occasional hours at heat exposed jobs such as convention setup and

1	hospitality. I've treated several who became ill with
2	heat exhaustion, dizziness, vertigo, or nausea during
3	their shifts, possibly due to the lack of regular hours
4	to become acclimatized. I'm aware of a young, healthy
5	resort pool attendant who suffered heat syncope during
6	his first day on the job. Workers eager to demonstrate
7	good job performance during their initial days of
8	employment are unlikely to self-select for
9	acclimatization protocols. So including clear
10	acclimatization guidance and protocols is essential.
11	Thank you.
12	JUDGE DONALDSON: All right. Thank you. OSHA, do
13	you have any questions for the witness?
14	MS. WANGDAHL: Thank you, Your Honor. This is Amy
15	Wangdahl with the Directorate of Standards and
16	Guidance. We do not have any questions today, but we
17	would like to thank Dr. Leovy for your participation
18	and testimony on behalf of Nevada Clinicians for
19	Climate Action today. Thank you.
20	JUDGE DONALDSON: All right. Same question for
21	the Solicitor's Office. Are there any questions for



1	MS. WILES: Thank you, Your Honor. Linda Wiles
2	for the Solicitor's Office. I don't have any
3	questions. Thank you so much, Dr. Leovy.
4	JUDGE DONALDSON: All right. Before we let you
5	go, let's see if there are any questions from other
6	members of the public.
7	MS. CARLON: There are none, Your Honor.
8	JUDGE DONALDSON: All right. Well, on behalf of
9	everyone, thank you very much for your testimony.
10	MS. CARLON: The next speaker is Joshua Trosclair.
11	Unfortunately, we do not see your name in the attendee
12	list. So if you have joined under another name, please
13	use the raise hand feature to go ahead and indicate
14	your presence. And if you have dialed in, please use
15	star three to raise your hand.
16	Our next speaker is Paloma Greenwald excuse
17	me Greenwald. Please state your name and
18	affiliation for the record.
19	MS. GREENWALD: Yes, hello. Paloma Greenwald.
20	Good afternoon, and thank you for this opportunity to
21	speak. Again, I am Paloma Greenwald. I'm a registered
22	nurse with decades of experience in elder care as well

5

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

now live and work in the desert southwest of Arizona.

I work for Elders Climate Action, where our volunteers

work to protect all life from climate change. I

as workers' compensation disability case management.

appreciate this chance to share my perspective on the

6 urgent need for OSHA's heat injury and illness

7 prevention standard.

Let me begin with a story that weighs heavily on me. Not long ago, I met with a worker who reported being threatened and mocked by her supervisors for showing symptoms of heat stroke. She told me about drinking water, discarded from bottles left behind by customers because her employer disallowed her bringing her own bottle. Now, despite feeling ill on this particular night shift, she pushed through only to be -- you know, mocked by her employer. And she was hospitalized within hours.

In other cases, a man in Arizona, under 40, collapsed while repairing an HVAC system. And another man in his 20s injured by heat while roofing during a heat wave. One of these gentlemen continues to suffer from chronic kidney damage two years later, and the

other remains in a coma. But let me assure you, these are not isolated incidents. They are a reality for too many of our workers.

Now, two powerful trends are converging. First,

we're experiencing more intense and longer lasting heat waves than ever before. The science is clear that climate change, driven by human activity, is increasing the frequency and severity of extreme heat events.

These are not just weather anomalies, they are part of a larger pattern that is directly impacting the health and safety of American workers. Second, older adults are remaining in the workforce for longer and longer times, often out of necessity as inflation drives up the cost of health care, food, and housing. Elders are especially vulnerable to heat injury, and without a strong heat standard, they will remain unprotected.

Now, as a nurse, I can tell you that heat illness is not just a matter of discomfort; it's a matter of life and death. Older adults and those with chronic health conditions are at particular risk. But even very young and healthy workers can suffer permanent harm. The economic impact is significant.

1	Hospitalizations, long term disability, and ongoing
2	medical care for heat-related injuries drive up health
3	care costs for families, employers and communities.
4	Workers' compensation claims and lost productivity add
5	further strain to businesses in our health care system.
6	Now these costs these are costs that could be
7	largely prevented with sensible and foreseeable heat
8	standards. Given that broader national climate
9	protections are still evolving and very slowly, OSHA's
10	leadership in enacting a strong heat standard is one of
11	the most immediate and effective ways to protect
12	workers from the dangers of extreme heat right now.
13	This action is urgently needed to address the risks we
14	face today, even as larger climate solutions are
15	debated and developed.
16	Now, while I urge OSHA to move swiftly to adopt a
17	comprehensive heat injury and illness prevention
18	standard, I request that it include mandatory access to
19	water, shade, and rest breaks, which are not just
20	guidelines, but requirements with accountability.
21	Acclimatization protocols for new and returning
22	workers, since sudden exposure is a known major risk in

these cases. In particular, training for all workers and supervisors to recognize and respond to heat stress symptoms is quite important. Special protections indeed for older workers and those with health conditions who may not recognize their symptoms until it's too late.

It's also essential that we work collaboratively. I recommend that OSHA and the EPA partner with state agencies and community organizations, especially those serving older adults and vulnerable populations, to ensure education, outreach, and mutual support for those at risk. Local health departments, worker centers, and senior services can help deliver training, distribute resources, and provide culturally competent guidance.

In closing, I want to remind everyone that no one should have to risk their lives, or simply -- for simply trying to earn a living. These tragedies I've described, and the economic burdens they create, are in fact preventable. By enacting and enforcing strong heat standards that recognize the reality of our changing climate, we can protect workers, reduce health

1 care costs, and build healthier, more resilient 2 communities. And I thank you for time -- I thank you 3 for this time and for your commitment to protecting 4 America's workforce. 5 JUDGE DONALDSON: Thank you as well. OSHA, do you 6 have any questions for Ms. Greenwald? 7 MS. WANGDAHL: Thank you, Your Honor. This is Amy Wangdahl with the Directorate of Standards and 8 9 Guidance. We do not have any questions right now, but we'd like to thank Ms. Greenwald for her time and 10 11 testimony on behalf of the Elders Climate Action today. 12 Thank you. 13 MS. GREENWALD: My pleasure. 14 JUDGE DONALDSON: Are there any questions from the 15 Office of the Solicitor? 16 MS. WILES: Thank you, Your Honor. Linda Wiles from the Solicitor's Office. I also don't have any 17 18 questions, and I thank you for your time today. 19 JUDGE DONALDSON: Are there any questions from the 20 public? 21 MS. CARLON: No, Your Honor. 22 JUDGE DONALDSON: All right. Then we'll consider



1	that the close of your testimony. Thank you very much,
2	Ms. Greenwald.
3	MS. CARLON: Our next speaker is Ashton Dolce.
4	Please state your name and affiliation for the record.
5	MR. DOLCE: Ashton Dolce. I am a youth climate
6	organizer with the Sunrise Movement, a youth movement
7	for climate change.
8	JUDGE DONALDSON: Thank you, Mr. Dolce. Please
9	proceed with your comments.
10	MR. DOLCE: Hi. Good afternoon. I apologize, I'm
11	very sick right now, so I'm going to keep my camera
12	off. But my name is Ashton Dolce and I'm a youth
13	climate organizer from Phoenix, Arizona. Over the past
14	three years, I've worked directly with city officials,
15	labor advocates, and frontline communities to craft
16	policy responses to one of the deadliest climate
17	threats we face extreme heat.
18	Today, OSHA has the opportunity and the
19	responsibility to do what its very mission demands
20	to assure safe and healthful working conditions by
21	setting and enforcing standards around extreme heat.
22	That that is a promise, one that millions of workers

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

- across this country are waiting for OSHA to keep.

 Outdoor workers deserve an enforceable heat standard,

 basic protections that many are still being denied
- today in workplaces, not just in Phoenix and Arizona,

5 but in many cities across this country.

Phoenix is one of the hottest cities in the country. In our summers temperatures regularly exceed 110 degrees. Yesterday, we broke yet another heat record, reaching 116 degrees for the first time on June 30th, the first time on record we've seen in recorded history. Cities like Phoenix and Tempe have already shown that enforceable standards like the one proposed today are effective. Local heat ordinances have mandated water breaks and shaded rest periods for outdoor workers, and the feedback has been positive.

Workers I've spoken to have reported more clear guidelines and even more access to water and shade.

But localized policies are not enough. Extreme heat doesn't stop at city lines, and we need OSHA to do what only it can -- implement a national, enforceable standard for outdoor heat safety. According to the Bureau of Labor Statistics, 479 workers in the U.S.

9

10

11

12

13

14

15

16

17

18

19

20

21

22

died from exposure to environmental heat from 2011 to
2 2022. And there were an even more estimated 33,890
3 estimated worker heat-related injuries. It's clear
4 that many of our workers, oftentimes on farms, in
5 construction zones, on delivery routes, are simply
6 trying to do their jobs but are being impacted by the
7 horrific conditions of extreme heat.

And it's critical that we understand that our most vulnerable, taken advantage of populations are often the most marginalized by extreme heat. In fact, undocumented workers report being denied basic protections, yet they make up a large plurality of outdoor workers -- nearly 50 percent of all farmworkers and fifteen percent of all construction workers.

But critically, OSHA enforces workplace

protections regardless of immigration status.

Undocumented workers are entitled to protections under

health and safety laws. And with the Kaiser Family

Foundation reporting that 50 percent of undocumented

Americans lack health care coverage, we must understand

that a large plurality of our outdoor workers don't

just lack protections in their workplaces, but also

1	cannot afford the care after experiencing heat stroke
2	or illness.
3	An enforceable heat standard would protect
4	millions, millions of outdoor workers. The workers
5	powering our nation deserve dignity and respect. They
6	deserve prevention. Prevention is not optional; it's
7	essential. And without a federal heat standard, we are
8	gambling with human lives every day.
9	And as the climate crisis worsens, these risks
10	will only grow. We have a window of opportunity right
11	now to pass the first enforceable federal heat standard
12	in U.S. history and OSHA must implement a strong one.
13	It's the bare minimum, and it's the right thing to do.
14	Thank you.
15	JUDGE DONALDSON: All right. Thank you. OSHA, do
16	you have any questions for Mr. Dolce?
17	MS. WANGDAHL: Thank you, Your Honor. This is Amy
18	Wangdahl with the Directorate of Standards and
19	Guidance. We don't have any questions today for Mr.
20	Dolce, but we'd like to thank you for your
21	participation and your comments submitted on behalf of
22	Sunrise Movement. Thank you.



1	JUDGE DONALDSON: Are there any questions from the
2	Solicitor's Office?
3	MS. WILES: Thank you, Your Honor. Linda Wiles
4	from the Solicitor's Office. I also don't have any
5	questions, but I thank you, Mr. Dolce, for your
6	participation.
7	JUDGE DONALDSON: And next, any questions from
8	members of the public?
9	MS. CARLON: Yes, we have one from Ms. Christman.
10	Please state your name for the record.
11	MS. CHRISTMAN: My name is Anastasia Christman.
12	I'm with the National Employment Law Project. Thanks
13	for your testimony today, Mr. Dolce. I just have one
14	quick question. You noted how hot Phoenix gets on a
15	consistent basis, and that you've been talking with a
16	lot of workers. Do you think that workers, because
17	they also live in Phoenix, don't need to be
18	acclimatized to do physical work in Phoenix?
19	MR. DOLCE: Absolutely not. In reality, because
20	the conditions of working hard labor are so extreme,
21	it's completely different than, say, for example,
22	walking out of your car or walking to the store in the



1	heat. I can give an example of yesterday. The
2	temperatures were 116 degrees. Simply walking on the
3	asphalt to go into the grocery store was unbearable.
4	It was simply too hot. And to act as if workers can
5	deal with these conditions hours after hours simply
6	because they live in Phoenix is just not true, and
7	represents the fact that, you know, a lot majority
8	of people in government are not experiencing the same
9	conditions that these workers are going through, these
10	daily, hourly conditions, week after week, month after
11	month, summer after summer. Thank you.
12	MS. CHRISTMAN: Thank you for that answer. Thank
12	MS. CHRISTMAN: Thank you for that answer. Thank you. And that's my only question, Your Honor. Thank
13	you. And that's my only question, Your Honor. Thank
13 14	you. And that's my only question, Your Honor. Thank you.
13 14 15	you. And that's my only question, Your Honor. Thank you. JUDGE DONALDSON: Thank you. I'll wait for any
13 14 15 16	you. And that's my only question, Your Honor. Thank you. JUDGE DONALDSON: Thank you. I'll wait for any other questions from members of the public.
13 14 15 16 17	you. And that's my only question, Your Honor. Thank you. JUDGE DONALDSON: Thank you. I'll wait for any other questions from members of the public. MS. CARLON: There are no none, Your Honor.
13 14 15 16 17	you. And that's my only question, Your Honor. Thank you. JUDGE DONALDSON: Thank you. I'll wait for any other questions from members of the public. MS. CARLON: There are no none, Your Honor. JUDGE DONALDSON: No further. Okay. Thank you,
13 14 15 16 17 18	you. And that's my only question, Your Honor. Thank you. JUDGE DONALDSON: Thank you. I'll wait for any other questions from members of the public. MS. CARLON: There are no none, Your Honor. JUDGE DONALDSON: No further. Okay. Thank you, Mr. Dolce.



and affiliation as you all move out -- move throughout your testimony.

MS. BURGA: Hi, everyone. Yes, my name is

Irina -- you can also call me Irene -- Burga. I'm with

GreenLatinos. I'm the Climate Justice and Clean Air

Program Director there. GreenLatinos is an active

comunidad of Latino leaders. We are emboldened by the

power and wisdom of our culture and driven to secure an

environmental liberation. And I'm here today

representing thousands of Latino community members

across the country who demand that OSHA finalize a

strong, enforceable national heat standard to protect

both indoor and outdoor workers from the deadly and

growing threat of extreme heat.

At GreenLatinos, we work every day to elevate the voices of those most impacted by the climate crisis, mainly through our Latino Climate Justice Framework, which is a set of community informed priorities, that includes protecting the health, safety and dignity of Latino communities. In it, we uplift the urgent need for federal heat protection standards because our community is overrepresented in the most heat-exposed

jobs. Nearly six in ten agricultural workers, three in ten construction workers and over two in ten of warehousing and transportation workers in the US are Latino. These are not just jobs. They are people, and they are at risk every single day.

In 2022, more than 2,300 people in the US died from extreme heat. The number is likely dramatic -- a dramatic undercount of the reality. Heat-related illness and death is consistently underreported, especially for Latinos. Many who are -- who are immigrants speak English as a second language and work in industries with minimal protections or regulatory oversight. They are often afraid to speak up, and even when their health is in immediate danger.

We documented one such case with our partners,

Farmworker Justice and Campesinos Sin Fronteras in our

Latino Climate Justice Framework video campaign on

extreme heat in 2023. It was a heartbreaking and all

too common story from Yuma, Arizona, one of the hottest

agricultural regions in the country. A farmworker

there collapsed in the field from heat exhaustion. She

was denied a proper break. She wasn't given adequate

water. No one responded in time. She passed out under the scorching sun and she could have died.

This is preventable. No one should fear that going to work might be a death sentence because of the heat. Too many workers come home dizzy and nauseated after long hours in unbearable heat, afraid to stop working because the pressure to meet quotas or keep a job outweighs their own safety.

For many Latino workers, they push through lifethreatening symptoms in silence. And with climate change supercharging extreme heat events, these conditions are only becoming more dangerous, more widespread, and more deadly. That's why we need OSHA to continue to act boldly. And we are urging here a meaningful heat standard.

And that should include a few points -strengthened worker protections against retaliation.

So ensuring that workers, particularly undocumented and migrant workers, can report unsafe conditions without fear of retaliation, deportation, or job loss.

Culturally relevant and language accessible training.

Mandate that all heat safety training be delivered in

languages spoken by the workforce, including Spanish and indigenous languages. Training must also be culturally sensitive, accounting for literacy levels and regional context.

Protections for seasonal and temporary workers, including specific enforceable provisions for contract, seasonal and temporary workers, those most vulnerable and most likely to fall through the cracks. Legal protections for migrant workers, coordinating with federal agencies to ensure that migrant and undocumented workers can access workplace protections and health without jeopardizing their immigration status.

Economic support for heat-related illnesses -expand provisions for workers who suffer heat-related
injuries, including paid medical leave and access to
affordable care. Partner with health agencies to
provide mobile clinics and workplace health screenings,
especially in rural areas. We believe that this cannot
be optional. Voluntary guidance is not saving lives
and enforcement must be real. Accountability must be
built in.

1	With climate change driving more frequent and
2	severe heat waves, this crisis will only deepen with
3	time. Workers are already dying, and Latino workers,
4	who make up a disproportionate share of our frontline
5	labor force, are bearing the brunt. The lack of
6	federal heat protections is a racial and environmental
7	injustice. GreenLatinos urges OSHA to adopt the
8	strongest possible heat standards without further
9	delay. And the Latino community is watching, and we
10	will continue organizing and uplifting stories like the
11	farmworker in Yuma and fighting until every one of our
12	workers is protected. We can't wait another we
13	can't wait another day. And just thank you for your
14	time and for your efforts.
15	JUDGE DONALDSON: Who would like to speak next
16	from your organization?
17	MR. GONZALEZ: Hello? Can you hear me? It's
18	Meisei Gonzalez.
19	JUDGE DONALDSON: Yes, we can hear you.
20	MR. GONZALEZ: My name is Meisei Gonzalez, and I
21	am the Climate Justice and Clean Air Advocate with
22	GreenLatinos. I'm a resident of Salt Lake City, Utah,

and I've spent the past five years working in environmental justice, advocating for clean air and climate protections for working class communities. But today I'm not here just as an advocate; I'm speaking as a son of a construction worker and restaurant cook.

I come from a very proud, working class immigrant family. My dad has spent decades laying down concrete across Utah. He's worked on everything from homes in private developments to public infrastructure projects. His hands have helped to build the communities we live in, and my brother has actually recently followed in his footsteps, starting his own company where he does his very similar work to support himself and his family. My mom has worked long hours in kitchens, often in poorly ventilated spaces where heat from stoves and ovens make every shift in health -- a health risk. The labor has paved the way for me to get to college, but I know it came with sacrifices.

I've had the opportunity to work alongside both of them, and I can tell you from personal experience, it gets dangerously hot. And it's only getting hotter every year. These days, my dad starts his shift before

the sun rises, trying to get ahead of the midday heat.

But even with an early start, when he's out there in
the middle of the day, we check in on him constantly,
making sure he's drinking enough water and taking
breaks, which his work at the time does not require.

I now have the privilege to work in a climate controlled space, but that's not the reality for millions of workers across the country. Between 1992 and 2002, more than a thousand U.S. workers died from heat-related causes, and in 2022 alone, 43 workers lost their lives due to occupational heat exposure. And we know those numbers don't reflect the full scope of this crisis. Those are only the ones that felt comfortable reporting.

From 2011 to 2020, an estimated 32,890 heatrelated injuries and illnesses caused workers to miss
time from work. That's over 3,000 people every year,
many of them in industries where missing a few days can
mean falling behind on rent or bills. When I read
those numbers, I don't just see statistics; I see my
family -- I see my dad, I see my brother, and I see my
mom. I see the neighbors and friends who continue to

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

work through these conditions without protections they deserve. These are the people who are making sure our roads are maintained. They're building the homes that we desperately need. They're planting, harvesting, and preparing the food on our tables. They deserve more than our thanks. They deserve respect and real protections.

Implementing heat protection plans, offering clear safety trainings, and ensuring access to water and rest breaks are simple steps. They're not radical, they're not expensive, but they can save lives. That's why we're calling on OSHA to not only finalize the rule, but to strengthen it. We support culturally and linguistically appropriate training for workers in the languages they speak, protections against retaliation for those who report unsafe conditions specifically for those with mixed documentation status, paid medical leave and healthcare access for workers suffering from heat-related illnesses, regardless of immigration status again, and clear and enforceable protections for temporary and seasonal workers who are often the most vulnerable.

1	Protecting workers from extreme heat is not only a
2	safety issue; it's a matter of dignity and justice. We
3	already know the climate crisis is making this worse
4	year after year, but we know what works and we know
5	what's possible. We urge you now to act, while, to
6	keep this country running. And on behalf of
7	GreenLatinos and working class families across the
8	country, I urge you to move forward with this rule and
9	adopt the strongest version possible, one that saves
10	lives, one that respects workers, and one that meets
11	this moment that we're in. Thank you for your time and
12	your commitment to this issue.
13	JUDGE DONALDSON: Thank you as well for your
14	statements. I see someone else has turned on their
15	camera. Are you the next speaker?
16	MR. MATUTES: I am. Thank you very much. Buenas
17	tardes, my name is Carlos Matutes, State Director for
18	GreenLatinos New Mexico. We're a national organization
19	working for environmental justice for Latino
20	communities and other communities of color.
21	As someone who grew up working in industrial
22	equipment outdoors in South Texas, I personally know



the impacts of extreme heat on workers. I know what it
feels like to be so overheated that it becomes

difficult to even think clearly. We're asking that the

Occupational Health and Safety Administration protect

the well-being of all of our workers.

These common sense rules protect millions of workers who put their health at risk, put food on our store shelves, build our roads, and keep our economy running. Here in New Mexico, the vast majority of workers impacted by extreme heat are Latine. We make up more than 80 percent of farmworkers here, 64 percent of construction workers, and a disproportionately high representation of both landscaping and oil and gas production. The more time that passes without equitable work or heat protection rules increases the risk of severe injury or worse.

Heat injury has devastating impacts, not only on workers themselves, but on their families and their communities. The Baylor College of Medicine notes that excessive heat causes changes in the emotions and behavior that can result in feelings of anger, irritability, aggression, discomfort, stress, and

14

15

16

17

18

19

20

21

22

1	fatigue. In other research, there is a direct
2	correlation between excessive heat and physical,
3	emotional, and intimate partner violence.
4	Latine workers are three times as likely to die
5	from heat on the job compared to non-Latine workers.
6	Is this what we want for our nation, for our
7	communities? We value the humanity and dignity of our
8	people, more than a slight uptick in profits. Even
9	that's a false dichotomy. Increasing worker protection
10	is not only the right thing to do, but also decreases
11	the time that employees are away from work due to
12	injury and illness.

And while paid rest breaks during extreme heat seems like they would decrease productivity, this will actually keep everyone healthy, alert and able to do their jobs better. We strongly encourage employers to implement these worker heat protection rules on their own, but we ask OSHA to continue putting workers needs at the forefront. Thank you very much for your time.

JUDGE DONALDSON: Thank you. I believe we have a fourth person. Oh, I see now. Ms. -- Ms. Garcia Nelson.



1	MS. GARCIA-NELSON: Yes, ma'am. Thank you. I'm
2	going to keep my camera off because my internet's bad.
3	JUDGE DONALDSON: Understood. We can hear you.
4	MS. GARCIA-NELSON: Perfect. Good morning. My
5	name is Patricia Garcia-Nelson. I'm speaking on behalf
6	today of GreenLatinos and as someone from a proud
7	working class family who has spent generations
8	contributing to this country's backbone industries
9	through work in agriculture, farming, and construction.
10	My family's story is rooted in work. My great
11	grandfather and my grandfather came to this country
12	through the Bracero Program to work in the fields. My
13	mother worked in agriculture before and after coming to
14	the US, and my father spent over 20 years working on a
15	dairy farm. That kind of work requires discipline,
16	grit, and heart. I also worked in agriculture as a
17	teenager, and I saw firsthand how hard it was to
18	experience extreme heat. Today, many of my family
19	members still continue to work outdoors, whether in
20	construction or the fields, and we take pride in our
21	work despite the risks.
22	As someone who's lived it, I can tell you that



1	extreme heat is not just uncomfortable; it's dangerous.
2	And we've seen it's getting worse. My colleagues have
3	already gone through some of these statistics, but I'd
4	like to share them again. Between 1992 and 2002
5	2022, over a thousand workers lost their lives really
6	due to heat-related illness. In 2022, 43 workers
7	didn't come home to their family members. Over the
8	last decade over the last decade, nearly 34,000
9	people have missed work because of heat-related injury
10	or illness, and many of them don't have the option to
11	take a sick day.
12	These are not just statistics. These are our
13	neighbors, our friends, our family members. Latino
14	workers make up a significant portion of America's
15	farmworker, construction crews, and other outdoor
16	laborers. But this isn't just a Latino issue. This is
17	an American issue because these are the people keeping
18	our food supplies running, building our homes,
19	maintaining our highways, supporting all the industries
20	that we depend on.
21	OSHA's proposed rule on heat-related illness

prevention is a commonsense measure that would prevent

unnecessary suffering and save lives. This rule isn't just about -- this rule isn't about red tape. It's simple, practical steps like making sure workers have access to water, shade, rest, and information to stay safe in high temperatures. That's the kind of basic, reasonable workplace standard any employee should and does have to follow. Because when workers are healthy and safe, businesses run better, families stay whole, and communities thrive.

I urge OSHA to strengthen the rule by requiring clear protections from retaliation for workers who speak up about unsafe heat conditions, maintaining training in the language that the workers will understand, including Spanish and indigenous languages, ensuring access to basic medical care and sick leave for those affected by the heat stress, regardless of where they were born, and covering temporary and seasonal workers who often face the highest risk with the fewest safeguards.

We ask people to show up, to do hard jobs, to feed our families, build our economy, and uphold our way of life. And in return, they deserve the basic

1	protections that allow them to work with dignity and go
2	home safely. This rule is about responsibility. It's
3	about honoring the values that built this country
4	hard work, family, and fairness. Please finalize and
5	strengthen this rule. The people who keep this country
6	running deserve no less. Thank you for your time.
7	JUDGE DONALDSON: All right. I believe that's all
8	the testifiers from GreenLatinos. OSHA, do you have
9	any questions for any of those witnesses?
10	MS. WANGDAHL: Thank you, Your Honor. This is Amy
11	Wangdahl with the Directorate of Standards and
12	Guidance. We do have a few questions for this panel,
13	and I would like to just say that they can choose to
14	answer today or they can submit post-hearing comments
15	or a combination of the two. So I'm going to turn it
16	over to Ryan Tremain.
17	MR. TREMAIN: Thank you. My name is Ryan Tremain
18	with OSHA Standards and Guidance. And I believe that
19	each of the speakers today, in some manner or another,
20	testified about the importance of OSHA including
21	specific measures to protect temporary, seasonal, and
22	contract workers. I just wanted to invite GreenLatinos

to provide any additional information or perhaps
suggestions for OSHA regulatory texts to ensure that
these workers are better protected.

And as Amy said, of course, that could be right now, today or in post-hearing briefs. But we -- we would certainly be interested in any additional information. I know Ms. Burga had suggested like interagency coordination, to ensure that workers know their rights and listed off a few other things. And just expanding on some of that or suggestions for reg text would be great.

MS. BURGA: Yeah. Thank you for that question and -- and request for further information. Yeah, I think the most effective would probably be to follow up with some of our written -- maybe in writing, kind of what our suggestions are. And I'm happy to elaborate more on some of the points I made and -- and some of the points my colleagues made as well.

MR. TREMAIN: That's great. Thank you very much.

Additionally, in your comments, you stressed the importance of language accessible training materials.

And so OSHA would also be interested, if possible,

1	whether there are any translation tools that you all
2	could recommend that employers can use for for
3	accurate translations, because of course, that's always
4	been as well.
5	MS. BURGA: Great, yeah. I we can include that
6	as well. And yeah, I'll just note that I think that's
7	always the tricky part is like yeah, not relying
8	just on kind of like Google Translate, but like how to
9	do culturally sensitive, accurate translations. And we
10	have some ideas. So happy to share more about that as
11	well.
12	MR. TREMAIN: Thank you very much. That's all I
13	have.
14	MS. WANGDAHL: Okay. Thank you. This is Amy
15	Wangdahl again. I just would like to thank the panel
16	for their time and participation today. We look
17	forward to getting your post-hearing comments. And
18	that is all that that concludes OSHA's questions for
19	the GreenLatino panel. Thank you.
20	JUDGE DONALDSON: Anything from the Solicitor's
21	Office?
22	MS WILES: thank you Your Honor Linda Wiles

1 from the Solicitor's Office. I don't have any 2 additional questions, but I'm also thankful for your participation in today's hearing. 3 4 JUDGE DONALDSON: All right. Now, to the members 5 of the public in this hearing, are there any questions 6 for the witnesses from GreenLatinos? 7 MS. CARLON: There are none, Your Honor. JUDGE DONALDSON: Are none. All right. 8 Then, 9 that would conclude your presentation. And again, we 10 appreciate -- we appreciate it. Are the panelists okay 11 to continue going? I know we're towards the end of the 12 agenda and so we could keep going or do you need a 13 break of any sort? 14 MS. CARLON: We were actually just about to ask if 15 we could go ahead and break for a ten minute recess. 16 JUDGE DONALDSON: I read your mind. All right. 17 Let's first break for ten minutes and go off the 18 record. And just everyone stay on the link. 19 MS. CARLON: Yeah. 20 JUDGE DONALDSON: Thank you. 21 MS. CARLON: And Ms. Gurnick, we will reconvene 22 with you as our next witness.

1	JUDGE DONALDSON: Be back in ten. Thanks.
2	(Break.)
3	JUDGE DONALDSON: All right. Welcome back. Our
4	timer says that that short break is over. Let's go
5	back on the record.
6	MS. CARLON: All right.
7	Our next speaker is Genevieve Gurnick. Please
8	state your name and affiliation for the record.
9	MS. GURNICK: Hello, my name is Genevieve Gurnick.
10	I'm part of Seaway Bolt, speaking on behalf of the
11	of the Industrial Fasteners Institute today.
12	JUDGE DONALDSON: Welcome. You can proceed with
13	your testimony.
14	MS. GURNICK: Thank you for the opportunity to
15	speak today. My name is Genevieve Gurnick. I am the
16	third generation to work in my family's fastener
17	manufacturing business called Seaway Bolt and Specials.
18	Seaway has been in Columbia Station, Ohio, since 1957.
19	We are a member of the automotive division of the
20	Industrial Fasteners Institute, or the IFI. It is a
21	trade association which represents approximately 85
22	percent of fastener production capacity in North



1 America.

IFI members make -- make the nuts, bolts, screws, and other fastener assemblies necessary to hold together every car, truck, plane, bridge, and computer, and cell phone that you use every day. To be more specific, no building, water, utility project, highway, bridge, or other infrastructure project can be built without our highly engineered structural fasteners.

Not a single military or commercial aircraft, ship, submarine, or their power plants can be assembled without geometrically sophisticated fastener components. In the aerospace market, U.S. fasteners are the world standard. It is estimated that over 92 percent of aerospace fasteners worldwide are produced by IFI member companies.

All automotive vehicles require many fasteners and their powertrain, structural assembly, steering, brake control mechanisms, and electronics, appliances -- excuse me -- appliances, heavy truck, off-road vehicles, consumer and military electronics, power generation, electrical grid, water, and sewer infrastructure, oil and gas exploration and production,

mining, rail, shipbuilding, and medical products all
use the fasteners manufactured in the United States
today.

Heat is not just a weather phenomenon for the fastener manufacturers; it is a critical part of our manufacturing process. And yet, the faster industry does not have a record of heat-related injuries, despite these heat processes on the factory floor.

Because our operations have cold and warm, or hot forging machines, or forging, or heat-treating equipment, or large ovens, or heat furnaces, we have plans in place to monitor indoor heat conditions for our employees already.

IFI urges OSHA to focus its future efforts on industries that are having heat-related injuries. IFI submitted detailed comments on -- on January 14th, 2025, in response to the previous administration's request for public comment on the proposed rulemaking for Heat Injury and Illness Prevention in Outdoor and Indoor Work Settings.

In addition, I participated in the 2023 Small Business Regulatory Enforcement Fairness panels to

provide OSHA with small business input on the proposed rule. IFI had -- IFI had another small business member that participated in the panel as well. Unfortunately, the proposed rule did not take into account the small business panel's recommendations.

I would like to highlight some of the key points that I made during the small business panel that the -IFI maded -- made in its public comments on the proposed rules in hopes that OSHA will withdraw the current proposal. In general, IFI does not believe in -- an indoor heat standard is necessary. The fastener industry has no history of heat-related issues, which is direct result of the steps fastener manufacturers, like Seaway, take to protect our employees and ensure customer needs are met.

IFI members address heat issues in a variety of ways, including altered shift times, frequent hydration break -- breaks, cold treats on extremely hot weather days, and fans where appropriate. Furthermore, the labor market is such that if a manufacturer does not provide adequate protections, an employee -- and employee monitoring for potential heat -- heat issues,

employees will simply find another place to work.

A one-size-fits-all heat standard that sets arbitrary heat triggers and does not take into account regional differences will be very difficult for manufacturers like IFI members to implement. IFI members' facilities are located all over the United States, with concentrations in California, Arizona, and Nevada for aerospace, Michigan, Indiana, Ohio, and Illinois for -- for the automotive industries, and in some places like Pennsylvania, New England, and the south for industrial products.

These various locations mean that weather conditions, including humidity levels, are very different from facility to facility. Every manufacturer must adapt its heat prevention plans to its location for the time of year and its production processes, especially if they are heat treating product.

In addition, manufacturing facilities are often -excuse me -- manufacturing facilities are often older
and not designed to be temperature controlled.

Installing and operating cooling systems to reach an

arbitrary indoor temperature would be expensive, and in some factories, impossible, in an industry with incredibly tight operating margins and fixed contracts with customers.

In addition, the current labor shortages make cross-training and rotating staff from certain jobs difficult to impossible. At small facilities like Seaway, the absence of even one highly valued team member leads to production challenges that must be managed appropriately. For large companies, even losing one percent of the production team has operational consequences, given the specialized nature of a skilled manufacturing worker.

IFI members are already experiencing workforce disruptions, and shortages -- and onerous difficult -- an onerous, difficult to achieve, indoor heat standard will not only further exacerbate an already stretched supply chain. Both IFI member companies that participated in the small business panel process, as well as the other small businesses on the panel, stressed that we already have heat illness prevention plans in place, and conduct annual trainings -- annual

training programs with refreshers, as needed, that protect employees from excessive heat while allowing operations to continue.

The panel participants discussed our training programs that include onboarding and ongoing education, specialized supervisor training, and employee communication materials, such as video boards, clock-in reminders, daily softy talk -- daily soft -- safety talks, and pamphlets. Panelists stressed that employees are allowed breaks at any time, with no retaliation, access to water and electrolyte drinks, fans, and access to cool areas.

While IFI appreciates that OSHA took some of the panel's recommendations into account -- into account by not mandating misters, cooling attire, or recordkeeping for the rest breaks, the proposed rules continues to entirely -- to be entirely too prescriptive for the variety of manufacturing environments that exist.

The proposed rule ignored the panel's comments that a proposed temperature trigger of 80 degrees was too low, and the acclimatization proposals were overly burdensome for new employees, and employees returning

to work after -- after vacations. Regarding the proposed rule's requirements for acclimatization, it is not feasible in the fastener industry to assign a new employee alternave -- alternative tasks during acclimatization time periods, as suggested by OSHA.

Machine operators do not have a back office role, nor are there any tasks for which they are hired that the employee can perform. Therefore, fastener manufacturers could -- would simply send the person home without -- without pay or focus, and set -- or -- or focus instead on hiring individuals already in the industry to avoid the disruption, which will have broad consequences to the workforce, including the further exploration of automation to replace workers subject to the regulation.

Finally, IFI strongly disagrees with the cost estimates OSHA provided in the proposed rule. Even companies that already have heat prevention plans in place would need more than the suggested 40 hours to ensure their current plans are in compliance with the proposed standard. OSHA provided an estimate for IFI's North American Industry Classification System code of

1	3327 of \$1,379 per year for compliance. Annual
2	training alone costs more than that by at least a
3	factor of ten.
4	IFI fully supports OSHA's efforts to protect
5	workers. However, the previous administration's
6	proposed rule mandates that the same onerous
7	requirements for every type of operation in every
8	region of the country, which could make continuing
9	these those operations difficult to impossible, all
10	without increasing worker safety.
11	We urge OSA OSHA to withdraw the proposed rule.
12	If OSHA determines that a mandated indoor heat standard
13	is necessary, we urge the agency to work with
14	stakeholders to issue a new proposal that includes
15	maximum flexibility for regions of the country and
16	individual industry sectors. For example, OSHA should
17	exempt industries like fastener manufacturing that
18	require processes process heating with no
19	alternatives to manufacture the product, and that have
20	no history of heat-related industry illnesses.
21	Metalworking industries like fastener manufacturing
22	already take unique and specific steps to ensure a safe

1	work environment for our employees. Thank you for your
2	time today.
3	JUDGE DONALDSON: All right. And thank you as
4	well.
5	OSHA, OSHA panel, do you have any questions for
6	Ms. Gurnick-Long?
7	MS. WANGDAHL: Thank you, Your Honor. This is Amy
8	Wangdahl with the Directorate of Standards and
9	Guidance.
10	Thank you very much, Ms. Gurnick, for your
11	testimony today, and then, also participating in the
12	SBREFA process previously. We love when stakeholders
13	follow through and participate in the variety of ways
14	that you can in a rulemaking process. So we just
15	wanted to thank you for that. The panel does have a
16	number of questions for you, so you can either answer
17	today, or you can follow up with written comments in
18	the post-hearing testimony, or a combination of both.
19	So don't feel like you have to answer everything today.
20	You can always submit those comments later.
21	MS. GURNICK: Okay.
22	MG WANGDAUL: Okaya So I'm gonna start talking

1	about you mentioned that the proposed standard is
2	too prescriptive, and we've heard that from another
3	from a number of testimonies already in the hearing,
4	and that OSHA should adopt a more flexible,
5	performance-oriented standard. So I have two questions
6	for you on that.
7	We're wondering if you have any recommendations on
8	how OSHA could structure a more performance-based
9	standard so that we're able to ensure that it's
10	sufficiently protective while providing enough clarity
11	for the employers?
12	MS. GURNICK: I would like to withhold an answer
13	on that question specifically and follow up on post-
14	hearing.
15	MS. WANGDAHL: And then, a follow up to that is,
16	are there any elements of a Heat Injury and Illness
17	Prevention Plan that you believe could should be
18	more prescriptive in nature, and if there are any that
19	could be more performance-based?
20	MS. GURNICK: We
21	MS. WANGDAHL: You can you can you can
22	follow up in in written comments. These are kind of

1 a -- I don't want you to feel like you're taking a 2 test. 3 MS. GURNICK: Yeah. Yes. I'm going to follow up. I -- I never wanna over -- I -- like, I -- I never want 4 5 to overstep my speaking on behalf of the entire 6 fastener industry. 7 MS. WANGDAHL: Sure. 8 MS. GURNICK: So --9 MS. WANGDAHL: Yes, so --10 MS. GURNICK: -- I will follow up with that one as well. 11 12 Absolutely. Okay. So I'm gonna MS. WANGDAHL: 13 turn it over to Zoe Petropoulos, who is participating 14 virtually today. 15 MS. PETROPOULOS: Hi, this is Zoe Petropoulos with 16 the Directorate of Standards and Guidance, and I have 17 questions that are specific to the written comments 18 that IFI submitted on the proposal. And so like Amy 19 mentioned, you're welcome to answer now, but you're 20 also welcome to answer in post-hearing comments. 21 So in their comment, IFI mentioned -- and I 22 believe you mentioned in your testimony as well, that

1 the triggers proposed by OSHA do not take into account 2 regional differences, and the standard with these triggers, quote, "will be very difficult for most 3 4 manufacturers, like IFI members, to implement", end 5 quote. 6 So I have a few follow up questions specific to 7 the -- the topic of triggers. Can you provide, now or in post-hearing comments, more detail as to the 8 9 specific difficulties IFI members would have in 10 complying with these triggers? 11 I will definitely follow up post-MS. GURNICK: 12 hearing, but some of the immediate ones that come 13 into -- into my immediate thought process are the 14 fastener manufacturers that have to heat treat, 15 especially in the aerospace industry, which are focused 16 around California and Arizona. They're going to have 17 just higher ambient temperatures just from turning on 18 the machines, and those factories have to run 24/7 or 19 the equipment will literally not work. 20 So there's a lot of built-in problems inherent 21 with that. So I hope that kind of helps there, but we

22

will definitely follow up more on that in the post-

11

12

13

14

15

16

17

18

19

20

21

22

1 hearing.

2 MS. PETROPOULOS: Thank you. My next question is 3 about -- I want to clarify something that was written in the IFI comment. It was later down in the comment, 4 5 and there was a sentence, quote, "Any heat index number 6 at or above 85 degrees Fahrenheit would mean monitoring 7 employees. And anything above 95 degrees Fahrenheit heat index would require preventative measures", end 8 9 quote.

And I'm wondering, is it incorrect - is it correct to interpret these as triggers that IFI members currently use in work sites? Some members? I'm wondering if you could also speak to whether Seaway Bolt and Specials uses these triggers? Any clarification would help.

MS. GURNICK: I will -- I will definitely follow up with that. Again, specifically for Seaway, we have different -- we do not use an actual -- we have heat triggers that we look at as a management team, but what it comes down to every single day is being out on the floor, and working with the employees, and seeing how they're reacting because there's certain areas --

especially, like, I mentioned the heat treating lines.

Even in the dead of winter, it's going to be 80 -80 degrees next to that machine. Or if you're doing
any hot forging, the temperature is going to be -- like
I said, in the dead of winter when it could be negative
20 out, it's going to be almost 80 plus degrees at that
hot forging center. So it's very hard for us, as a
manufacturer, to just say today, yeah, it's going to be
85 degrees.

But you also have to remember that that operator who is doing the hot forging, or is running the heat treat line, or even casting the steel in the steel factories, they're going to be wearing copious amounts of PPE to protect them from burns and all those other things which already raises their own internal temperature.

So it gets very specific for our NAICS code very quickly so that's why I would like to also follow up afterwards so that we can cover the individual things because the whole fastener industry, like I mentioned, has wide varieties of manufacturing processes that are hotter or colder, and everything in between.

1	MS. PETROPOULOS: Got it. Thank you. And I want
2	to go back to something that you said in your testimony
3	about accounting for regional differences in the
4	triggers, and so I have a couple of questions about
5	that. If OSHA were to take an approach of having
6	geographically varying triggers, what geographic area
7	or boundary would IFI envision OSHA using? So for
8	instance, county level, state level, region level, et
9	cetera, and what data would IFI envision OSHA using to
10	inform those boundaries?
11	MS. GURNICK: I will definitely follow up with
12	that one post-hearing. As I did mention, we have
13	manufacturers all over the country, so we will have a
14	very detailed response to that.
15	MS. PETROPOULOS: Thank you. And this is a
16	related question. Does IFI envision that any
17	potentially geographically varying triggers would also
18	apply to indoor work sites that have process related
19	heat?
20	MS. GURNICK: I I will follow up with that one
21	as well.
22	MS. PETROPOULOS: Okay.



1 Definitely. MS. GURNICK: 2 I want to change topics. MS. PETROPOULOS: sorry if I interrupted you just now. Okay. 3 4 to change topics and talk about monitoring of heat 5 hazards, and this is again, a specific question related to something that was in IFI's comment. 6 7 answering one of the questions that OSHA posed in the NPRM about whether OSHA should specify a frequency of 8 9 monitoring, IFI's written comment states that the 10 organization feels the proposal is too prescriptive, 11 and adding further requirements would make it more 12 difficult for manufacturers to comply. 13 However, we've heard the opposite from commenters 14 like the Brewers Association, and they stated in their 15 comment that the frequency of monitoring is too 16 ambiguous, and that small businesses will have to guess 17 as to what frequency is sufficient. And they 18 recommended that OSHA provide a clear standard on this 19 provision for monitoring to quote, "ensure clarity and 20 better compliance", end quote. And I'm wondering if 21 IFI agrees with the Brewers Association on this 22 argument. Why or why not?



1	MS. GURNICK: I'm on behalf of the IFI, I'm
2	going to follow up on follow up with that
3	afterwards. On behalf of Seaway, it is quite
4	prescriptive, and it is hard for small companies to be
5	able to understand what exactly is required by OSHA.
6	But again, I feel like it comes down to each individual
7	manufacturing location, specifically within our
8	industry, to be able to answer that just because the
9	jobs vary so much within a factory in itself.
10	MS. PETROPOULOS: Got it. And any data you can
11	provide, either now or in post-hearing comments as to
12	what frequency IFI members currently monitor conditions
13	in their work areas? We would be interested in hearing
14	about that. I know that there were comments that IFI
15	provided about that, you know, heat index is currently
16	used in - in some member facilities. So any - any
17	information you have on current frequency of
18	monitoring, we'd be interested in that.
19	MS. GURNICK: Absolutely. We can share that.
20	MS. PETROPOULOS: And then, I do have one last
21	question for you on a different topic. How do Seaway
22	Bolt and Specials, and other IFI member employers,

1	determine whether an injury at their work site was
2	heat-related? For instance, does a physician or other
3	medical professional make an onsite determination
4	regarding whether heat caused or contributed to an
5	injury? And a follow-up question is, from a
6	recordkeeping perspective, if there are cases where
7	it's unknown if heat contributed, what typically
8	happens?
9	MS. GURNICK: Oh, big question. Specifically, on
10	behalf of Seaway Bolt, if we have an injury, we have a
11	physician sign off on that. So we have protocols in
12	place for any injury. They must have a physician or
13	physician equivalent sign off to return to work.
14	And then, we, based off of that, address it. On
15	behalf of other IFI members, I cannot speak to it
16	purely because location of factories and size of
17	factories has a huge role in that. Some factories have
18	on-site physicians, and some factories are miles away
19	from a hospital. So I will hold off on that, and then,
20	respond in post-hearing. And then, what was your
21	second question again? I'm sorry.
22	MS. PETROPOULOS: The - the second guestion to

1 that was just from a recordkeeping perspective, if 2 there are cases where it's unknown if heat contributed, what typically happens? 3 4 MS. GURNICK: That is a great question. 5 have to follow up with you in the post-hearing brief on 6 that, and ask my HR department just -- that was a bad 7 joke. Yeah, I will follow up on that. 8 MS. PETROPOULOS: Thank you. 9 And that was it for me. 10 Thank you for all of my many questions. 11 MS. GURNICK: Great questions. Thank you. 12 JUDGE DONALDSON: Are those all of the questions 13 from OSHA or is there anyone else? 14 MS. WANGDAHL: No, Your Honor. We have a number 15 of other questions for this witness. 16 We're going to go to Ryan Tremain, who has some 17 questions on the Heat Illness Prevention Plan and 18 acclimatization. 19 MR. TREMAIN: Hi, this is Ryan with OSHA. 20 You mentioned that you -- that your members 21 already have Heat Illness Prevention Plans that are in 22 place and that you've found effective. I just wanted

to say that if you're able to share any examples of
those plans in your post-hearing comments, OSHA would
certainly welcome that.

Next, on -- you had discussed a bit about acclimatization, and stated that the -- the gradual acclimatization schedule that OSHA included in the proposal wouldn't be -- would -- would be impracticable for -- for your industry due to the lack of alternative job tasks for machine operators in particular.

But I wonder, OSHA had proposed a second alternative, a second option for acclimatization, that gives employers more flexibility to design an acclimatization plan that implements high heat trigger provisions for the first week. And then -- well, you know, when -- when the trigger is exceeded, and then, other provisions kick in, including, like, observing employees, and allowing scheduled breaks, and so on, and so forth.

Sort of a modified schedule based on employer's assessment of the situation. And I was just wondering is - is that second option, is that something that you looked at, or is that something that would be suitable

for your members, your - sort of, more palatable? And
you know, why or why not, I guess would be something to
have a look at.

MS. GURNICK: Thank you, Brian. And we will definitely share those examples. Like I mentioned, we have a wide variety of types of factories throughout the country, so we can share those examples. I will hold off on responding on behalf of the IFI for your for your question and respond in the post-hearing brief.

We -- but going back directly to what I said earlier, the acclimatization, part of the issue is how highly skilled our machine operators are. It's very hard to find replacements for them. So the second that we get one of those operators, we need them immediately because the ramp-up period to train that operator to be able to run one of these \$5 to \$10 million machines is very highly specialized.

So that's what that comment is referring to. And the -- the -- there's no back office work. If there is, that would be great, but at the end of the day, when a machine operator is -- that we hire, they're

1	highly paid. They make six-plus figures to be able to
2	run these ten like I said, \$10, \$20 million
3	machines. They're there because they are industry
4	professionals. So that's why that's why that
5	comment was made.
6	MR. TREMAIN: Okay.
7	MS. GURNICK: Did that explain that well?
8	MR. TREMAIN: It does. It I think it explains
9	why the the gradual acclimatization wouldn't be
10	suitable, and I was just wondering if the, sort of,
11	more mitigated approach that uses, you know, maybe fans
12	or other cooling devices, increased employer
13	observation of employees, increased breaks being
14	offered, that sort of thing, and if something like that
15	would be would make more sense? Really, it's a sort
16	of a option two that was, I guess, in the proposal, I
17	guess.
18	MS. GURNICK: Understood. Thank you, Brian. I
19	like I said, I'm gonna hold off on answering that part
20	for the IFI. But personally, within our work
21	environment, we consider all options because those
22	operators are in such high demand and in such need.



1 MR. TREMAIN: Okay. And finally, I've just been 2 admiring your display of various bolts and fasteners behind you. 3 4 MS. GURNICK: Thank you. 5 MR. TREMAIN: That's all --6 MS. GURNICK: Thank you. 7 MR. TREMAIN: -- for me. Thank you. MS. WANGDAHL: 8 Okay. We're going to head to 9 Tiffany DeFoe, who has a question on rest breaks. 10 MS. DEFOE: Hi. This is Tiffany DeFoe from the 11 Directorate of Standards and Guidance, OSHA. I wanted 12 to also follow up on one of the responses that IFI --13 IFI provided to the questions in the NPRM. It was a 14 question where OSHA was asking for feedback about the 15 proposed requirement to provide a 15 -- or to require a 16 15-minute rest break every two hours. 17 And in IFI's response to that, the -- you guys 18 discussed the automated nature of the equipment, and it 19 sounded, like, that the way that the equipment works 20 makes it pretty feasible for workers to take breaks 21 at -- at, you know, regular times or whenever they 22 I wanted to ask for some clarification.

1 terms of the proposed requirement -- so we -- we understand that you do not believe it's -- it's needed 2 for your industry, but I wanted to ask another angle of 3 4 that. 5 If -- if OSHA does move forward with a -- with a 6 final rule on heat, and if it does include a scheduled, 7 mandated rest break provision, are there logistical challenges or other challenges that your organization 8 9 believes would arise, in your context, from meeting the 10 proposed version of the mandated rest breaks -- rest breaks schedule? 11 12 And -- and those can be, like, you know -- I mean, 13 we're definitely interested in any sort of logistical 14 challenges that may arise, regardless of the automated 15 processes or other challenges that you care to give us

we're definitely interested in any sort of logistical challenges that may arise, regardless of the automated processes or other challenges that you care to give us feedback on. And if so, does your organization have recommendations for how scheduled rest breaks provisions could be made more flexible while still being protective to the workforce?

MS. GURNICK: I am going to let -- I will follow up with that in post-hearing. So in our industry, it is common for unions, and a lot of that is -- plays

16

17

18

19

20

21

22

1 into effect on that as well. So logistically, looking at how different factories are structured across the 2 3 United States, for some that may be an issue, 4 logistically speaking. 5 So -- and then, again, you mentioned the automated 6 nature of our machinery. Just for a little bit of 7 background of how that works, typically there's the setup, and -- and depending on how new the machine is, 8 9 or how complicated of a part you're making, a setup --10 which is the most labor intensive part -- could take 11 anywhere from an hour to 8 hours. So that's where 12 it'll very much be based off of the worker and the 13 employer of how those types of things would typically 14 play out. 15 And then, after it's -- the equipment is set up, 16 then, it is automated from that point on. But there --17 yeah, so I hope that kind of gives a bit of a 18 background on that. But otherwise, I'm going to let --19 I'll follow up post-hearing. 20 MS. DEFOE: Thank you. Yeah. No, I mean, that --21 that bit of information just now is helpful, and 22 apologies, but it inspired a -- a follow on question.

1 Just -- in the situations that you mentioned just now, 2 where there may in fact be stretches of time where there is sort of is -- sort of a time sensitive 3 4 operation that's not automated in process, can your 5 membership provide information that would help us 6 understand how they're currently covering any needed 7 rest breaks that -- that come up during those operations? 8 9 MS. GURNICK: Yes, we can definitely provide that. 10 And on -- on behalf of Seaway, when we have -- on 11 behalf of Seaway, this is not on behalf of IFI, when 12 those situations arise, it's very much -- well, besides 13 we already have mandated breaks within Seaway, and 14 given wherever they are on a setup process, operators 15 know -- and we have it -- a -- a culture and an 16 environment, if an operator needs a break, they have a 17 chair within ten feet of them or less, actually.

I think it's within five feet that they're able to sit down somewhere and take a rest. And then, within ten feet, or a 30 second walk, they can access an air-conditioned room. So that's just personally within Seaway. That is not a reflection of IFI.

18

19

20

21

22

1 MS. DEFOE: Thank you very much. That's all I 2 have. 3 MS. WANGDAHL: Okay. 4 We have some technological feasibility questions 5 from Brenda Finter. 6 MS. FINTER: Hello. Brenda Finter, OSHA, 7 Directorate of Standards and Guidance. I have three questions for you. First one, you mentioned that 8 9 members have plans in place to monitor indoor heat 10 conditions. Are you able to share any existing monitoring plans from IFI members in post-hearing 11 12 comments? 13 MS. GURNICK: Hello, Brenda. Do you just mean how 14 we're recording that data? 15 MS. FINTER: Can you share actual plans, or if 16 not, just any information that you can provide, any 17 details, would be fine. 18 MS. GURNICK: I definitely overthought that. Yes, 19 we can provide -- there is some that we'll be able to 20 provide. 21 MS. FINTER: Okay. Thank you. And also, you 22 mentioned that members use fans where appropriate.

1 you provide more detail on when fan use is deemed 2 appropriate versus when not? And again, you can provide this in post-hearing comments, but you're free 3 4 to try to answer now. 5 MS. GURNICK: I'll -- I'll definitely follow up 6 post-hearing. Fans are the hottest commodity, I think, 7 in every manufacturing facility. Everyone that's anyone has a fan, so we leave that up to the operator. 8 9 We have operators that run fans when it's zero degrees 10 outside, so -- but -- but the biggest issue for --11 especially in -- in our factory at Seaway is -- we're 12 running steel parts. 13 So there's actually some places where we do not 14 have fans because it'll increase rusting. So that 15 varies widely across the industry and locations and 16 But when operators are typically working, 17 there's a fan if -- if they need one, we get them a 18 fan. They -- they run the show. We even have fans 19 hooked up to tow motors. 20 MS. FINTER: I see. 21 MS. GURNICK: If --

22

MS. FINTER:

Oh, sorry. I didn't mean to

1 interrupt you. 2 MS. GURNICK: It's okay. Sorry. I probably won't -- went way into depth on that one. 3 4 MS. FINTER: No, that's great. 5 Last question. What controls are currently being 6 used by member companies to keep employees safe in work 7 areas where air-conditioning and fans cannot be used? MS. GURNICK: I will definitely follow up post-8 9 hearing with some examples of that. But some of the 10 immediate ones that come to mind are buddy checks. 11 Buddy checks are -- a huge part of our industry is 12 taking care of your fellow worker and -- and -- and 13 then, oh, gosh. It's very common to also use PPE. 14 The -- the word's escaping my mind. The cooling 15 jackets and different accoutrements like that. 16 across the industry, different techniques are used, and 17 we'll follow up in the post-hearing about specifics. 18 MS. FINTER: Well, that inspired a real quick 19 follow up question. Any experience that you can share 20 about using cooling PPE would be very helpful as well. 21 Benefits versus any problems with using the cooling 22 And that's all --PPE.

1 MS. GURNICK: Well, we'll --2 MS. FINTER: -- I have. 3 MS. GURNICK: -- yes, we'll follow up post-hearing 4 with that. 5 MS. WANGDAHL: Okay. And we have some economic 6 analysis questions from Joo-Hyung Shin. 7 Hi. Hi, this is Joo-Hyung Shin from MS. SHIN: 8 OSHA. In written comments and your testimony, you 9 discussed in length about OSHA's cost estimates. For 10 example, you mentioned that even companies with plans 11 in place would need more than 40 hours to ensure that 12 their current plans are in compliance with the proposed 13 standard. 14 If you could provide a little more detail on what 15 tasks would need to be completed and the corresponding 16 labor hours that would be needed to review and modify 17 existing plans to ensure compliance? Any more detail 18 on that, like, for -- like, what do you mean by more 40 19 hours? If you could elaborate on that, we would 20 appreciate it. 21 A follow up question on the cost estimates is, you 22 also mentioned in written comments and your testimony

1	that OSHA's annual compliance cost estimate of \$1,379
2	for the industry is an underestimate, saying that
3	annual training costs would cost more than by, at
4	least, a factor of ten.

Similarly, if you could provide more detail behind your cost estimate of training, like, how you arrived at the conclusion that it will cost by at least of a factor of ten? And also, if there are other provisions in which you disagree with OSHA's cost estimates, and if you could provide alternative estimates, OSHA would greatly appreciate those as well.

(AUDIO INTERFERENCE)

MS. GURNICK: Thank you. We will definitely follow up post-hearing in the post-hearing brief about that. Specifically though, we're a very compliance-based industry. Every single fastener that is sold in the United States has to meet either an automotive or some other standard. So we are standard experts, we understand how to be audited, and to comply with them.

And going off of that, in my earlier comment, that I said margins are extremely small in this industry.

So every single time that we have to stop our machines



1 and conduct a training, that is lost -- that is -- lost 2 time is not the appropriate use when talking to OSHA. 3 It is lost manufacturing time, so that is kind of how 4 we calculate things. It -- or it -- we also refer to 5 it as sorting hours or running hours. So that's 6 typically how it's calculated for the industry. 7 MS. SHIN: Okay. Thank you. MS. WANGDAHL: This is Amy with OSHA, again. 8 Ι 9 just want to thank you, Ms. Gurnick, for your time and 10 accepting all of these questions. I -- we know it was 11 a lot, and we look forward to receiving your post-12 hearing comments. We appreciate your time and 13 testimony today on behalf of Seaway Bolt, and also, 14 IFI. 15 And Your Honor, that concludes questions from 16 OSHA. 17 JUDGE DONALDSON: Thank you, OSHA. 18 Solicitor's Office, do you have any questions for 19 the witness? 20 MS. WILES: Thank you, Your Honor. Linda Wiles 21 from the Solicitor's Office. I think that Ms. Gurnick-22 Long has answered many, many questions already so I

1	have no further questions for her. But I thank her
2	and - as a representative of her company, Seaway Bolt,
3	and on behalf of IFI for being here today and for
4	contributing to OSHA's rulemaking, so thank you.
5	JUDGE DONALDSON: Well, let me check with the
6	public just before we make sure you're whether your
7	statements are are finished or complete.
8	Are there any questions from the public attending
9	this session?
10	MS. CARLON: There are none, Your Honor.
11	JUDGE DONALDSON: There are not?
12	All right. Well then, after those those
13	several questions, I do think that is the end of your
14	statement. If you are, in fact can finish, Ms.
15	Gurnick-Long, with what you wanted to say?
16	MS. GURNICK: Thank you, everybody. Have a great
17	afternoon.
18	JUDGE DONALDSON: Thank you.
19	MS. CARLON: The next speaker is Marc Sorini.
20	Please state your name and affiliation for the record.
21	MR. SORINI: Good afternoon. Marc Sorini with the
22	Brewers Association. Delighted to be here and and



speak to you. Also delighted to hear that -- that my
comments were read. So the Brewers Association
represents small and independent brewers. We have a
couple of reasonably large company members, but still
much smaller than the large multinationals that
dominate the industry.

There are over 9,000 small breweries in this country. Over 4,500 are members of the Brewers

Association. We have members in every state, and -- and our median member makes less than 1,000 barrels of beer a year, and has less than 15 employees. So these are the quintessential small businesses that we represent.

Now, it's obvious that a brewery is going to be covered by this -- by this rule if it goes into effect. We have a heat source called a brew kettle in every single production brewery in America. And -- and then, in addition to that, a lot of our members are more retailers than they are, sort of, large distributing breweries or -- or distributing breweries, and therefore, they have retail components these days that often include some outdoor areas, particularly in the

1 warm months.

And of course, with temperatures being what they are, oftentimes we'll -- we'll exceed the thresholds, so we have a great interest in this. We'll -- we'll start by observing that I don't know that heat is a particular problem in the -- the brewing industry. We do have resources that we put out for all of our members on safety, and those have specifically included heat -- heat -- heat resources.

I was just peeking at our website and saw an article we wrote on this subject in -- in 2022. So we think that small breweries -- small breweries do their best to comply with this. And that's a -- I think that's an observation, to say. I'm not sure we're the crux of the problem, and particularly given the pressures on OSHA to -- to rule make in a way that eliminates other rulemaking, we're not sure this is -- this is the best use of our time to put on small brewers.

But if you do go forward, we do have some suggestions, and I think one of them was highlighted here. Our members don't have resources, you know, to

- afford outside -- I mean, a couple of our biggest
 members maybe, but most of our members cannot afford
 outside counsel, cannot afford expensive consultants,
 do not have the expertise to look at guidance. And so
 you know, the -- the biggest one that grabs us is rest
 breaks as needed.
 Well, what is a rest break as needed? And we have
- Well, what is a rest break as needed? And we have
 a couple of concerns with that. Number one, I think
 our -- our members are going to be scratching their
 heads if they have to comply with that. And number
 two, it looks like it converts that standard
 effectively into a strict liability standard. In
 effect, if -- no matter what, you know -- what
 diligence is done by the employer, if there is a heat
 injury, well clearly, that employee needed it.

And that, in fact, the de facto injury itself is going to be seen as the reason to say that the standard was violated. So we're not particularly keen on that.

We'd like to see a much more objective standard there or eliminate that standard altogether. But -- but right now, we see that as a -- as a huge problem for small -- small and independent brewers.

16

17

18

19

20

21

22

14

15

16

to comply.

able to figure that out.

1	Second one was the one that Ms. Petropoulos
2	highlighted. We really are not big fans of the
3	frequency of outdoor monitoring standard. I'll quote
4	it here. I I generally don't like reading from
5	stuff, but it's, "with sufficient frequency to
6	determine with reasonable accuracy employees' exposure
7	to heat".
8	If I'm if I'm a even if I'm a lawyer, I
9	recognize that there's a lot of play there. And if I'm
10	not a lawyer, and I'm a small business owner, I have no
11	idea what that means. Our folks try to comply, and if
12	you give them a standard, they will do their darndest

We would much prefer something that's clear,

again, if -- if this rulemaking proceeds. And then,

the other two bits are things that may be belt and

suspenders, but we want to make clarity on. Most of

our members are going to have that area around the brew

house that will get hot, but they're also going to have

But that is something that they are not

going to know how to comply with. They're not going to

have the expertise or the consulting firepower to be

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

air-conditioned retail areas.

So making clear that using a retail space for your cool down area, I think would be very good, because otherwise we're not gonna - some of our members are too small to have dedicated break rooms. The retail area is the break room. And then, second of all, making clear that there doesn't have to be any kind of overlap between the heat safety training, the heat safety plan, and other ongoing safety and training programs would be great.

And in fact, if this does get adopted, we would want to see that adopted into our plans that are already in place for our members. So that's what -- that's what I have to say, and appreciate your time and attention. And if you have any questions, I'm happy to answer them.

JUDGE DONALDSON: Thank you.

Are there any questions for Mr. Sorini?

MS. WANGDAHL: Thank you, Your Honor. This is Amy

Wangdahl with OSHA's Directorate of Standards and

21 Guidance.

22 And we do have a number of questions for you



1 today, Mr. Sorini. 2 MR. SORINI: Great. 3 MS. WANGDAHL: So sit back and relax, and --4 MR. SORINI: All right. 5 -- as I mentioned with previous MS. WANGDAHL: 6 presenters, you can either answer today, or you can 7 submit your answers in post-hearing comments, or a combination of the two. So as we discussed with other 8 9 presenters today, we've heard that several groups 10 testifying have said that they felt that the proposed 11 standard is too prescriptive. 12 And you, yourself, mentioned, you know, some 13 issues that you might have, and that we should adopt a 14 more flexible performance-oriented standard. 15 have any recommendations on how OSHA can structure a 16 more performance-based standard to ensure it's 17 sufficiently protective while providing enough clarity 18 for employers? And I know you mentioned, just a few 19 minutes ago, talking about the rest breaks as needed as 20 one example. So if you had any other examples, we 21 would be interested in hearing those.

22

MR. SORINI:

Yeah, the two specifics that I gave

- are certainly there. You know, if -- if I zoom out a

 little bit, I would make the following observation.

 When it comes to brewery injuries -- and -- and -- and

 I am not the internal expert at BA on this. The -- the
- head of our technical programs is, but I -- I know enough to be dangerous.

Most of the times where there are failures, it's
not because somebody violated an OSHA rule or -- or
another rule. It's because they simply don't give a
you know what, and usually, they're not members of
ours. And so the sad reality is that a lot of
prescriptive rules generally are preaching to the
converted.

14 And so, you know, our -- our -- my focus certainly 15 was if somebody's reading these rules and wants to 16 comply, let's make it easy to comply. The sad reality 17 is -- I remember a few years ago, we had -- it had 18 nothing to do with heat injury, but we had a tragic 19 incident at a brewery. And you know, the -- the -- the 20 list of mistakes that were made in -- leading to this 21 accident were, you know, multiple -- multiple OSHA 22 violations and other things.

1	So I think that's just a general observation that
2	sometimes being very attempting to highly regulate
3	some of this stuff for small businesses, in particular,
4	is not going to achieve the desired result. So
5	and and I know that's counterproductive to say to
6	the folks that are promulgating the rule, but but
7	but that's kind of our observation, generally, is that
8	we want to make sure if the rule gets passed, and we've
9	got members that are that know and care and look at
10	it, they will. I think the people that are nonmembers,
11	who are typically just running on a shoestring, are
12	gonna be the problem and they're not gonna be reached
13	by whatever the rule is.
14	MS. WANGDAHL: Okay. If you have other
15	observations on where we can make changes, please feel
16	free to
17	MR. SORINI: Yep.
18	MS. WANGDAHL: submit those.
19	MR. SORINI: Yep.
20	MS. WANGDAHL: And then
21	MR. SORINI: Yeah, we've we've provided the big
22	four that we saw, as far as, you know, if if the



1	standard goes through, these are these are the big
2	four improvements we'd like to see.
3	MS. WANGDAHL: Okay. What elements of a Heat
4	Injury and Illness Prevention Plan do you believe
5	should be prescriptive in nature, and which could be
6	more performance-based?
7	MR. SORINI: When you say performance-based, help
8	me out. What's what do you mean by that?
9	MS. WANGDAHL: Well, we're trying to find areas
10	where we can be more flexible or have some built-in
11	flexibility for employers so that but you've already
12	sort of pointed out that you don't like the as-needed
13	rest breaks, as needed. You know
14	MR. SORINI: Yeah.
15	MS. WANGDAHL: to the
16	MR. SORINI: I mean, if there's a way so so
17	the challenge with a lot of these things is that if
18	if it's rest breaks as needed, it becomes something
19	similar to a tort standard. And when the and when
20	the enforcement mechanism is more regulatory so that
21	you get written up, it becomes much harder to it
22	becomes, in my view, a a difficult way to a



1 different -- a difficult challenge to comply when 2 you've got a small business owner going well, as 3 needed? I'm not sure what that means and -- and I 4 think that's your challenge. So we tend to say if 5 we're going to have rules, let's -- let's have very 6 clear rules. 7 MS. WANGDAHL: So -- so another example, being more prescriptive, is where OSHA could say each 8 9 employer must provide eight ounces of water every four 10 hours. So if there are some examples that you could provide the agency --11 12 MR. SORINI: Right. 13 -- with prescriptive and more MS. WANGDAHL: 14 performance-based, we would appreciate that. 15 MR. SORINI: Okay. 16 MS. WANGDAHL: Okay? 17 MR. SORINI: All right. 18 MS. WANGDAHL: I'm going to turn it over to Zoe 19 Petropoulos who's going to talk about identifying heat hazards. 20 21 MR. SORINI: Sure. 22 I can see you writing something MS. PETROPOULOS:

1 down so I can wait if you would like me to? 2 MR. SORINI: Oh, yeah. No, I was just want --3 writing down the question. Go ahead. MS. PETROPOULOS: So I just wanted to follow up 4 5 about the concern that you - you repeated around the 6 frequency of monitoring, under paragraph (d), and I 7 know in your written comment you suggested that perhaps a monitoring of every two hours could be - like, you 8 9 provide that as an example. 10 MR. SORINI: Yep. 11 MS. PETROPOULOS: And so I wanted to ask --12 MR. SORINI: And -- and that was provided to me by 13 my -- by our technical folks, who are much closer to 14 the actual operations than I am, but yeah. 15 MS. PETROPOULOS: That's helpful, because I was 16 gonna ask are most brewers typically already monitoring 17 at this frequency, or is this, you know, a -- a -- a 18 hypothetical example provided --19 MR. SORINI: Most is hard to say when you have 20 9,500 breweries out there. 21 But I would say probably -- probably -- but I -- I 22 can't say I know that for sure, and I don't -- I mean,

1 we do pretty regular surveys of our members on a number 2 of things. I don't think this is one of them. 3 but I can get back to you on -- on whether we know more 4 on -- on what the standard practices are. I -- I don't 5 know that for sure. 6 MS. PETROPOULOS: Okay. Well related, we'd be 7 interested into -- in how brewers are currently monitoring conditions, what equipment they're using --8 9 MR. SORINI: Yeah. 10 MS. WANGDAHL: -- you know, what works well for 11 them versus not. 12 MR. SORINI: Yeah. 13 We would also be interested in that MS. WANGDAHL: 14 information. 15 MR. SORINI: Yeah, it's probably fairly basic for 16 most of our members. I mean, you know, if you -- with 17 our members, you have a couple of -- a couple of large 18 members here. Sierra Nevada Brewing Company, for 19 example, which are going to be, you know -- they're 20 still small compared to Anheuser-Busch, but they're 21 going to be relatively state-of-the-art. But that's, 22 like, 0.2 percent of our members, and everybody else is

1 an extremely small business. So think about, like, 2 your average mom-and-pop coffee shop. They're probably 3 just using a basic thermometer. 4 MS. PETROPOULOS: Got it. That information is 5 helpful. Thank you so much. 6 And that's it for me, Amy. 7 MS. WANGDAHL: Okay. 8 MR. SORINI: Thank you. 9 We have Brenda Finter, who has some MS. WANGDAHL: 10 questions on technological -- technological feasibility 11 and engineering controls. 12 MR. SORINI: Okay. 13 MS. FINTER: Hello. Brenda Finter, OSHA Directorate of Standards and Guidance. I have just a 14 15 couple of questions. First one, do your members use 16 any methods to isolate radiant heat from heat-17 generating equipment? If so, what have they tried 18 that's been successful and what has been unsuccessful? 19 Yeah, I would have to get back to you MR. SORINI: 20 on that. My quess is that, like, a very sophisticated, 21 you know -- like, looking at, specifically, the radiant 22 heat coming from the brew kettle is probably not being

1	measured in 95 percent of our members. That's my
2	guess. Again, these are very small businesses with
3	very small staffs and very and and you know,
4	without the opportunity to get sophisticated equipment,
5	but I could be wrong. So let me let me check and
6	get back to you.
7	MS. FINTER: Okay. And then, next question is, in
8	your comment, you mentioned that many small brewers
9	have air-conditioned retail space.
10	MR. SORINI: Mm-hmm.
11	MS. FINTER: For brewers without these air-
12	conditioned spaces, are there situations where
13	employees take breaks outdoors to cool off?
14	MR. SORINI: I doubt it unless, you know unless
15	they want to because they're smokers or something odd
16	like that, but I doubt it. Again with 9,500, it's hard
17	to make a broad generalization, but usually so I
18	I would say today, roughly well, in excess of 90
19	percent of our members have some sort of retail space.
20	I I I think that's probably the case.
21	The largest members will have a standard, you
22	know, dedicated break rooms and other things. I'm not

1 sure there's any brewery, or many breweries, that, you 2 know, the only choice is stay in the brew house or go 3 I doubt that's the case, but again, I can --4 I can see if we have any data on it. 5 Okay. Thank you. MS. FINTER: 6 MS. WANGDAHL: Okay. 7 We're going to move to Tiffany DeFoe to talk about rest breaks. 8 9 Hi. Tiffany DeFoe, Directorate of MS. DEFOE: 10 Standards and Guidance, OSHA. So circling back again 11 to your rest break comments, I wanted to ask first -so it sounded to me, in your in your written comments, 12 13 like, part of your concern with the as-needed rest 14 breaks for post provision, was that -- that the way 15 that that provision was worded could potentially 16 create, sort of, like, unfair liabilities for 17 employers? 18 MR. SORINI: Yeah, I gotcha. 19 MS. DEFOE: Okay. And I wanted to ask, so this is 20 with the background, that -- would that -- that 21 provision is sort of -- how we proposed the language 22 was to ensure that employees could take breaks when

1	they feel at risk of overheating. Even if it's, you
2	know even if it's in addition to any scheduled rest
3	breaks. And I wanted to ask if there were any specific
4	changes to the language of that provision that you
5	could suggest in post-hearing comments is great if
6	that's better than now that would address the
7	concerns that you're having about unfair liabilities,
8	while still preserving the ability of employees to take
9	breaks when they feel at risk of overheating?
10	MR. SORINI: Yeah, I'll I'll leave the details
11	to post comment comments. I do think that
12	there's needs to be some sort of objective standard,
13	right? As needed can be very subjective, and so some
14	sort of some sort of standard, and it's good to
15	clarify that it's hey, that the, you know the
16	worker thought that they were feeling lightheaded,
17	right, and and and I I think there'd be
18	no disagreement from anybody, and any of our members,
19	to say if, in that case, there ought to be some sort of
20	break provided.
21	But but there ought to be some sort of, you
22	know, reasonable-person standard, if you will, to say

- 1 is -- is there a reason for the employer to think that 2 this is needed, you know? My -- my fear with an as-3 needed is, well, you should've -- you should've -- you should've looked out, and walked the floor, and talked 4 5 to your people, and gotten to the point where you knew 6 that Joe Blow was -- was -- was overheated. 7 I mean, I -- that's very hard, and -- and I fear that, well, Joe Blow passed out from the heat. 8 He 9 needed a break, you didn't give him one, that's --10 that -- you're getting written up. You -- you had a 11 violation. And God forbid Joe Blow hurt himself at --12 in doing so because now you've got, you know, the OSHA 13 violation. The -- is the basis for tort liability and 14 all sorts of other things. So -- so that's why --
- MS. DEFOE: Mm-hmm. I -- I think I followed that.

 Let me clarify. If -- if OSHA were to, for example,

 promulgate a provision that employers must -- that if

 an employee approaches them and says, I need a break.

 I'm at risk of overheating.

more -- much more objective.

that's why we think there ought to be something much

MR. SORINI: A reasonable request for a break, you

15

16

1 Something like that. know? 2 Well, let's just start with a request MS. DEFOE: 3 for a break --4 MR. SORINI: Mm-hmm. 5 MS. DEFOE: -- with the reason given that they 6 feel at risk of overheating. 7 MR. SORINI: Yeah, and --8 MS. DEFOE: So the --9 MR. SORINI: -- technically, I think that's right. 10 MS. DEFOE: -- so the responsibility is to -is -- is to grant the request rather than to --11 Yeah. 12 MR. SORINI: 13 MS. DEFOE: -- you know, then to, like, make -- to 14 understand without any communication --15 MR. SORINI: yep. 16 MS. DEFOE: -- that some was needed. 17 MR. SORINI: Yeah, I mean, I -- I think -- I think 18 we're in -- we're heading in the right direction, for 19 I'd have to think through the, you know -- could 20 you have an employee that then, you know, walks into 21 work the first thing in the morning, and says I'm 22 feeling hot, you know? See you in eight hours.

```
1
        mean, obviously -- again, there has to be some sort of
        reasonableness standard here that -- that -- that comes
2
        into play.
 3
             MS. DEFOE: Yes, and actually, you're -- what
 4
 5
        you're saying right now is -- there's some -- some
6
        comments that we've received by -- from folks earlier
7
        in the hearing process that were raising concerns and
        questions similar to that one. And I'll just note that
8
9
        one of the suggestions that we've received about that
10
        concern is that OSHA could -- so as your -- as you --
        your comments make clear you're aware, OSHA develops
11
12
        quidance that is designed to accompany any rule that
13
        we're promulgating, and to help provide some extra
14
        information about what the expectations are, or how the
15
        agency intends things to be interpreted. And I was a
16
        little dismayed to hear that -- that lawyers are
17
        required for understanding that. I'm sorry.
18
             MR. SORINI:
                           Yeah.
19
                          That's on me.
             MS. DEFOE:
20
             MR. SORINI: No, I -- so --
21
             MS. DEFOE:
                          But --
22
                          -- so my experience -- but look.
             MR. SORINI:
```

1 I -- my -- my focus, I'm a 25-year-partner at a big 2 firm was that -- was that most of your small business 3 clients -- and I had a few who could afford it, you 4 know, they would read the regs but they could never get down into the, well, you know, TTP Ruling 20008-3 says 5 6 They're never gonna know that. That's when --Х. 7 okay. You can -- you can call Marc and he's going to know where all the bodies are buried, as far as the, 8 9 you know -- the -- the non-regulatory guidance. 10 I -- I -- I -- my personal view, and just 11 from long experience as - in private practice is that 12 you need lawyers, and/or consultants, if you're going 13 to get down into the sub regulatory guidance. 14 by the way, the other thing is, I googled it. And if 15 you can find it by Google easily, maybe that helps 16 because that's what - that's what a lot - that's the 17 compliance program for probably 95 percent of our 18 members, is Google. 19 MS. DEFOE: Well, okay. I'll circle back to that 20 topic in a moment, but I just --21 MR. SORINI: Okay. 22 - wanted to first - in the guidance -MS. DEFOE:

1 so if - if we move forward with the heat standard, 2 we'll develop guidance to go with it. And the 3 suggestion that we receive from someone who had a 4 similar concern about potential abuse of as-needed rest 5 break provisions by employees was that OSHA should 6 include, in its guidance, sort of, a healthy dose of 7 explanation about what was considered, what the expectations were, and what - to - to help to sort of 8 9 create what they called quardrails -10 MR. SORINI: Mm-hmm. 11 -- around the use of as-needed breaks MS. DEFOE: 12 by employees. And so with that in mind, if you have 13 any thoughts that you'd like to share about that 14 suggestion and what kind of information could be useful 15 to include about -- about your concern. 16 MR. SORINI: Yep. 17 And -- and guidance, as opposed to the MS. DEFOE: 18 reg. 19 MR. SORINI: Yeah, so as -- as a general matter, 20 I do think that -- that more clarity -- and certainly 21 clarity within the rules would be helpful. On other 22 guidance, I can't think of anything at the moment just

1	cause I hadn't thought out how that applies in a
2	brewery situation, but certainly would be happy to file
3	further further comments.
4	MS. DEFOE: Let's see here. And then, on, kind of
5	the other branch of the rest break requirements that we
6	proposed, I I wonder if you can comment and
7	again, like, post-hearing is fine on whether you
8	think that them scheduled mandated scheduled rest
9	breaks that the proposed rule includes at the high heat
10	trigger would be feasible for your industry or the part
11	of your industry that you're representing here today
12	(Cross talking.)
12	(Cross talking.) MR. SORINI: Every two hours, if I recall?
13	MR. SORINI: Every two hours, if I recall?
13	MR. SORINI: Every two hours, if I recall? MS. DEFOE: Mm-hmm. That's right.
13 14 15	MR. SORINI: Every two hours, if I recall? MS. DEFOE: Mm-hmm. That's right. MR. SORINI: Yeah, I think in general that's
13 14 15 16	MR. SORINI: Every two hours, if I recall? MS. DEFOE: Mm-hmm. That's right. MR. SORINI: Yeah, I think in general that's probably when when we talked amongst our, you
13 14 15 16 17	MR. SORINI: Every two hours, if I recall? MS. DEFOE: Mm-hmm. That's right. MR. SORINI: Yeah, I think in general that's probably when when we talked amongst our, you know our technical advisory folks, they thought that
13 14 15 16 17 18	MR. SORINI: Every two hours, if I recall? MS. DEFOE: Mm-hmm. That's right. MR. SORINI: Yeah, I think in general that's probably when when we talked amongst our, you know our technical advisory folks, they thought that that was probably that was probably doable, yeah.
13 14 15 16 17 18 19	MR. SORINI: Every two hours, if I recall? MS. DEFOE: Mm-hmm. That's right. MR. SORINI: Yeah, I think in general that's probably when when we talked amongst our, you know our technical advisory folks, they thought that that was probably that was probably doable, yeah. That most most breweries are doing that already, you



1	things that we don't have the issue that I think some
2	of the industries here have is, you know, if you're out
3	in a road construction site, it becomes much more
4	difficult than at a, you know essentially, a
5	combined manufacturing retail business, which is what
6	most of our member businesses are.
7	MS. DEFOE: Thank you. And then, the last
8	question that I had for you was actually just about the
9	part of your comment that noted that the way that OSHA
10	practices in the field, and guidance documents that,
11	you know, that they are that they do help to provide
12	additional clarity on how the rule is to be applied and
13	enforced, but that knowledge of those details can be
14	hard to access for small businesses.
15	So you've already talked about that a little bit
16	here today
17	MR. SORINI: Yeah.
18	MS. DEFOE: but if you had any further thoughts
19	for the record on how that information could be made
20	more accessible to small businesses?
21	MR. SORINI: Well, I've
22	(Cross talking.)

13

14

15

16

17

18

19

20

21

22

1 MR. SORINI: -- always felt like regulations, you know -- regulations is a little bit of a less is more 2 approach, which is regulations that are clear and 3 4 concise, but where you can get everything in one 5 package is good. And -- and -- and I know that those 6 are sometimes at cross-purposes, right? If you want a 7 short regulation, you can't go into details. So I recognize that that's a challenge, but -8 9 but -- but my experience, you know - again, not - not 10 an -- as an OSHA attorney but as a practicing attorney 11 in a highly regulated field, you know, alcohol

beverages, is that most -- most of your brewery owners, production folks, whatever, could get to the regs.

Getting further below that to the rulings, and the industry circulars, and the, you know -- what various advisories is much, much, much harder. And then, you have to reconcile them, right, because then maybe there's 18 different -- I mean, I remember with my customs -- when I did customs rulings, right? You'd have dozens of customs rulings, and you have to try to reconcile them, and that -- that becomes very, very hard for a small business owner.

1	That that that's where that's where
2	companies of scale and this gets back to, sort of,
3	our reason of being. We are protecting small
4	independent businesses. Companies of scale that can
5	spread the costs of compliance out amongst very large,
6	you know, production runs, you know, in the case of
7	beer or whether it's services, you name it. It becomes
8	pretty easy to, you know, hire an expert who can say I
9	know exactly where the rulings are and I know exactly
10	how to do this. We - we basically operate on the
11	principle that 99 percent of our members can't do
12	that - or at least 95 percent of our members can't do
13	that.
14	MS. DEFOE: Well, thank you very much for your
15	patience with all my questions.
16	MR. SORINI: No, no. That's great.
17	MS. DEFOE: And your responses, yeah.
18	MR. SORINI: I'm happy to.
19	MS. WANGDAHL: Okay.
20	MS. DEFOE: It's
21	MS. WANGDAHL: We have a few economic questions
22	from Joo-Hyung Shin.



This is Joo-Hyung Shin from OSHA. 1 MS. SHIN: Hi. 2 In your submitted comments on your testimony, you 3 mentioned that small brewers generally have safety 4 plans and training already in place. 5 MR. SORINI: Yeah. 6 MS. SHIN: If you could provide more detail on the 7 existing plans and training that your members have in place, and provide some examples, if that's possible? 8 9 And also, how much it would cost to incorporate heat 10 safety related material into the existing plans, we 11 would greatly appreciate that information. 12 MR. SORINI: I can -- I can have our folks Yep. 13 gather a -- gather a safety plan. And in fact, I 14 believe we provide a -- a -- a model safety plan 15 document for our members. So I can get you that, 16 absolutely. 17 That's great. Thank you. And my last MS. SHIN: 18 question is, if you have data that speaks to the 19 percentage of your members that have ice makers or 20 freezers where ice can be stored onsite, we would 21 appreciate that information as well. 22 Yeah, I doubt we're keeping

Okay.

MR. SORINI:

1 that data, but I bet I could get a -- a --2 MS. SHIN: Like, any number percentage. 3 MR. SORINI: -- rough estimate. Mm-hmm. Like, how prevalent that is? 4 MS. SHIN: 5 were -- we're just interested in that information. 6 MR. SORINI: Okay. Sure. 7 MS. SHIN: That's all for me. Thank you. MR. SORINI: All right. 8 9 So this is Amy Wangdahl again. MS. WANGDAHL: 10 Sorini, I just wanna add one small item. As you pointed out, the four major issues, or concerns that 11 12 you had, if there's anything in the proposal that you 13 liked, or that you believe employers can comply with, 14 we always appreciate that feedback as well. 15 MR. SORINI: Okay. 16 And I should have mentioned this MS. WANGDAHL: 17 Our -- you know, we're on YouTube right now, 18 so I -- we see you taking notes. And for Ms. Gurnick-19 Long, she was taking notes as well, but you could 20 always watch the recording on YouTube immediately after 21 the hearing, and a transcript will be probably a few 22 weeks, but you can also get the questions at that point

1 if that helps you any? 2 MR. SORINI: Yeah, that'll be helpful. 3 Absolutely. 4 MS. WANGDAHL: So we really appreciate the time 5 and your testimony today, Mr. Sorini. We look forward 6 to receiving your post-hearing comments. 7 And Your Honor, that concludes questions from 8 OSHA. 9 MR. SORINI: Great. Thank you very much. 10 for clarity, one question. Do you have a specific 11 deadline set for the post-hearing comments? And if 12 they were already in my material, sorry for asking. 13 MS. WANGDAHL: I believe -- I'm sorry. 14 Go ahead, Your Honor. 15 JUDGE DONALDSON: Oh, that -- either of us can 16 answer it I think, but I'm -- I'm showing that there's 17 a 90-day period that ends September 30th, 2025. 18 Anybody correct me if I'm wrong, but that there's 19 a 90-day period for that opportunity to submit more 20 information post-hearing. 21 MR. SORINI: Perfect. Okay. Very good. Thank 22 you.

1	Thank you, Your Honor.
2	JUDGE DONALDSON: Thank you very much.
3	Well, let me make sure there's no other questions
4	for you. I know that
5	MR. SORINI: Yep, yep.
6	JUDGE DONALDSON: you've you've answered a
7	number already.
8	But from the Solicitors Office, I need to check
9	with you. Any questions?
10	MS. WILES: Thank you, Your Honor. Linda Wiles
11	from the Solicitor's Office.
12	Thank you, Mr. Sorini, for being so frank in your
13	discussion with us today and in answering your
14	questions. I did have just one small follow up. I
15	heard you say that compliance assistance and guidance
16	materials are not readily accessible or easy for the
17	small business small businesses to utilize.
18	So if, in your post-hearing comments, you have any
19	suggestions or recommendations how OSHA might be able
20	to make those materials more accessible for small
21	businesses, I think we would greatly appreciate that
22	input.

1	MR. SORINI: I'll think about it. I it's a
2	perennial problem, and I also must admit, I I don't
3	know how your system works as far as how well how
4	how searchable your databases are, and stuff. It's
5	just my experience, and you know, dealing with multiple
6	other agencies that it's it it that
7	stuff is very hard for a small business to really
8	get get their head around.
9	MS. WILES: Fair enough. I think that's not in
10	a unique experience so
11	MR. SORINI: Yeah.
12	MS. WILES: any suggestions from your members
13	or any ideas that you have, that would be greatly
14	appreciated.
15	And that's it for me, Your Honor.
16	JUDGE DONALDSON: Thank you very much.
17	Are are there any members of the public present
18	that have a question for Mr. Sorini?
19	MS. CARLON: There are none, Your Honor.
20	JUDGE DONALDSON: Okay.
21	Well then, that does conclude your statements
22	for at this time. Of course, you it sounds like



1	you plan to submit more information post-hearing, and
2	you have about the 90 days to do that.
3	And thank you, OSHA, for touching on how to
4	revisit all the questions, either at YouTube or an
5	uploaded transcript in a couple weeks or more at
6	regulations.gov for this for this particular
7	hearing.
8	But but thank you again, Mr. Sorini.
9	MR. SORINI: Thank you.
10	MS. WANGDAHL: Our next speaker is Marcus
11	Cervantes. Please state your name and affiliation for
12	the record.
13	DR. CERVANTES: Hello. My name is Marcus
14	Cervantes. I am a physician specializing in both
15	family medicine and occupational and environmental
16	medicine. I am on the board of the Association of
17	Occupational and Environmental Clinics, or AOEC, and
18	I'm speaking on behalf of AOEC today.
19	So AOEC is a network of occupational and
20	environmental clinics and professionals across the
21	United States. Clinicians and AOEC clinics see workers
22	exposed to heat in jobs ranging from construction,



agriculture, postal delivery, firefighting, and emergency response.

This is a growing trend that every year, more and more workers are exposed to higher and higher temperatures. On May 13th, the National Weather Service reported that the Southwest is set to experience the hottest May heat waves of all time.

Further, they noted that many will not be acclimated -- acclimatized to this type of heat so early within the year, and 2024 was the hottest year in recorded history. We'll see about this summer.

I say that with a heat wave where I am currently, and where I reside. So there's no question in my mind, as well as other occupational medicine physicians, that more workers will get sick, get injured, die due to heat exposure at work. It's my opinion that an OSHA standard is recommended, but not only that, probably long overdue.

The proposed standard has provisions that protect many workers, although I think there should be some additions to the standard. The scope should include all indoor and outdoor workers. The standard should

also specifically state that temporary workers should be included. Employers should have a Heat Injury and Illness Prevention Program. I believe that was part of the standard, but if it isn't, it should be.

All employers should have a -- or these employers should have a written plan, and the idea behind that being that that forces employers to evaluate the risk of heat exposure to their workforce, and create an appropriate heat exposure control plan. Employees should also have access to the plan so that workers are more educated and -- and more aware of -- of the -- the hazards.

And then, a written plan also allows compliance officers for OSHA to quickly determine whether a plan is one, appropriate, and, two if it's been followed. So I did want to take a couple minutes to talk about heat-related injuries as well. So in addition to water, rest, and shade, the most important workplace control to prevent heat-related injuries, illnesses, and death is acclimatization.

So workers who are not acclimatized to heat are at a much greater risk. And approximately 70 percent of

heat-related deaths are in new and returning workers who are not acclimatized. The proposed standard does not allow for maximum protection for unacclimatized workers.

They need time on the job to acclimatize, and certainly, they will not be acclimatized when starting a -- a new job after leaving their air-conditioned home, or apartment, regardless of their country of origin or their current region of permanent resident. The body acclimates to hotter conditions by improving sweating, increasing blood plasma flow, and improving heart function.

These physiologic adaptations occur within 5 to 17 days and depend on many factors, including the level of heat, the workload, personal risk factors, PPE used by workers -- or personal protective equipment, as well as baseline medical conditions. And when not working in heat for a period of time, say due to a medical leave or vacation, the body quickly loses these adaptations as well.

One thing that I heard another member point out was that they currently use the buddy system. I will

get to that, but I think that's an important part of the standard -- or that should be included within the standard. Typically, when we talk about heat-related illnesses, we oftentimes describe them as separate entities, but really it's kind of a -- a continuum of symptoms.

So heat stroke, heat exhaustion, heat syncope, heat cramps, heat rash, they're not always discrete, but they overlap. You can have heat cramps and heat exhaustion at the same time. You can be sweating profusely while you progress from heat exhaustion to heat stroke.

And during that progression, that can happen both very quickly and sometimes very subtly as well. What we actually see with heat stroke is that confusion and disorientation are the most common symptoms of heat stroke. So where I am going with this is despite adequate training, despite an employer having a written H-I-P-P that the employee is well versed and has well read, and should ideally -- yeah -- be aware of, they may fail to recognize their own symptoms because of again, confusion and disorientation.

So because of this, observation for signs and
symptoms should be considered at the initial heat
trigger. And additionally, new and returning workers,
OSHA should require a buddy system as well. So if a
worker were were to become confused or disoriented
when reaching the heat stroke stage, again, they're
unlikely to to recognize those symptoms at that
point.

Supervisors can also be an important part of this monitoring workers for heat stress symptoms. I certainly have a concern about workers working alone. And then, a supervisor should also be on the site. So more and more of these days, we are all doing things remotely.

I mean, I -- we are all speaking to each other remotely, or at least many of us are, but a supervisor remotely evaluating a lone worker could easily miss some signs or symptoms of heat exhaustion and heat stroke that can only be recognized face-to-face. So as a -- as a practitioner of medicine now, a small part of my practice is telemedicine.

And certainly, a lot is lost from examination and

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

speaking to people when you're doing it through a

webcam like this. So when in the field, emergency

management of heat stroke is typically required to save

a life. And again, a confused worker working alone

will not -- will probably not be able to do those

things so -- so a buddy system is part of this as well.

My other thoughts is that medical surveillance and medical screening may also be a valuable part of the standard. Workers who regularly work in hot environments should be part of this, as OSHA recognized in the notice of proposed rulemaking, workers with a number of medical conditions and workers on a variety of medications are at an increased risk of heat-related illness.

Training may not be enough. Workers may not realize that they're in -- at increased risk. And by placing the burden on workers to recognize the risks, you're asking the -- the worker to make medical decisions, a worker who may not have any medical background whatsoever.

And this is not an uncommon thing. OSHA has recognized the -- the need for medical screenings in

9

10

11

12

13

14

15

16

17

18

19

20

21

22

many standards such as lead, asbestos, silica. So heat
is a hazardous exposure. Many heat-related deaths have
been reported in the literature and investigated by
OSHA, and they could have been prevented through
medical screening programs that identified workers at
higher risk, or provided accommodations for these
workers.

Myself and other clinicians in occupational medicine, we regularly use screening questionnaires like OSHA's respiratory questionnaire, required within the respiratory protection standard. A -- I -- I believe that this author actually spoke either a few days ago or last week, but Brett Perkison used a medical screening questionnaire to look at municipal outdoor workers, and that was actually shown to decrease the incidence of heat-related illnesses in those -- in those workers.

It is also my impression that there should be a trigger within the heat standard for medical evaluation when workers continue to have signs and symptoms of heat illness. Typically, when that happens, the workers should be medically evaluated beyond first aid.

1	And so specifically, what I say well, what I mean
2	when I say that, what would prompt that? So
3	specifically, if a worker has symptoms of headache,
4	dizziness, nausea, fatigue, weakness, vomiting, or
5	other symptoms that are not substantially improved
6	after 15 minutes of rest, cooling, and hydration, then
7	immediate medical attention should be sought and
8	provided, or sooner if the symptoms are worsening.

Workers who have mental confusion, or have had an episode of loss of consciousness -- what I would call a syncopal event -- they should be immediately evaluated since these may be higher or more likely indicators of heat stroke or a serious health condition. In these cases, immediate transportation to a hospital emergency department in an air-conditioned vehicle is the appropriate intervention for those requiring medical attention.

And again, heat stroke is a medical emergency requiring immediate treatment. So -- so in conclusion, heat stress is increasingly causing many of these injuries, but it's completely preventable. And I speak on behalf of AOE -- AOEC when I say that we strongly

1	purport support OSHA's proposed heat standard and
2	urged them to finalize the standard. Thank you.
3	JUDGE DONALDSON: Thank you, Dr. Cervantes.
4	OSHA, do you have any questions for the witness?
5	MS. WANGDAHL: Thank you, Your Honor. This is Amy
6	Wangdahl with Directorate of Standards and Guidance,
7	and we have a few questions for Dr. Cervantes.
8	DR. CERVANTES: Sure.
9	MS. WANGDAHL: I'm gonna go first. You touched on
10	your support of the buddy system during your
11	presentation, but we've heard from some groups that
12	they were requiring the buddy system where we have
13	workers that would be identifying a heat illness in
14	their coworkers is not possible because the workers are
15	not, quote, unquote, "medical professionals".
16	In your experience as a medical professional, are
17	the symptoms of heat illness something that non-medical
18	professionals can be trained to identify?
19	DR. CERVANTES: Yes, I think it'd be reasonable to
20	anticipate that the layperson could identify confusion
21	or disorientation. This is a common complaint in
22	family medicine offices, the emergency departments

1 where someone brings in their grandmother or their 2 child and says, they seem a little confused. Can you 3 help? Can -- can they be evaluated? So altered mental 4 status is a common, common, common concern, probably in 5 the top ten of most frequent encounters within any 6 emergency department within the United States, so. 7 MS. WANGDAHL: Okay. Thank you. And we're going to turn to Zoe Petropoulos. 8 9 MS. PETROPOULOS: Hey. This is Zoe Petropoulos 10 with the Directorate of Standards and Guidance. We've 11 heard --12 DR. CERVANTES: Hi. 13 MS. PETROPOULOS: Hi. We've heard multiple 14 medical professionals and surveillance experts 15 throughout this hearing say that they believe that 16 heat-related injuries and illnesses among workers are 17 undercounted in official administrative and 18 surveillance datasets. Do you agree with this? Why or 19 why not? 20 DR. CERVANTES: I would -- I would agree with 21 that, absolutely. So I actually -- during my 22 occupational environmental medicine training -- was

т	Tortunate enough to intern at the office of
2	Occupational Medicine and and Nursing at OSHA. And
3	I do recall that this was a frequent issue for the
4	characterization of heat-related illnesses and deaths.

Specifically, deaths in those cases when the Office of Medicine and Nursing was involved. But typically, if we didn't have evidence from the coroner or pathology that there was a elevated temperature within the body -- so typically, if we were fortunate enough, maybe EMS or someone else had stuck a rectal thermometer within a passed out worker, found that they had a temp of 104.

And this is documented somewhere, but frequently, these kinds of things don't happen. And so there's really not proof within some of the -- or some of the -- the medical evidence, that that was the case of -- of a fatality. So yeah, I -- I would not be surprised. There is also ample literature out there that has looked at heat-related illness in non-citizen workers within the U.S. as well so -- and there seems to be some under representation of heat-related illnesses in those groups, as well, from -- from data.

1 So yeah, I -- I think that would be a fair assessment 2 that we're probably undercounting the significance of 3 this. 4 MS. PETROPOULOS: Thank you. 5 That's it for me. 6 MS. WANGDAHL: Dr. Cervantes, that's all we have 7 from OSHA. I want to thank you for your time and testimony today. And if you have anything additionally 8 9 that you'd like to follow up, you can - feel free to 10 submit your post-hearing comments. 11 Your Honor, that's all that OSHA has today. 12 you. 13 JUDGE DONALDSON: Thank you, OSHA. 14 Anything from the Office of the Solicitor? 15 questions? 16 MS. WILES: Thank you, Your Honor. Linda Wiles 17 from the Solicitor's Office. Not - no questions for 18 me. 19 Thank you, Dr. Cervantes for your time and for 20 being here. 21 And I just wanted to state on the record, I want 22 to thank all the participants at today's hearing for

1	making the time to prepare their statements, and enter
2	into the record, and respond to OSHA's scrupulous
3	rulemaking. It's a really important part of OSHA's
4	work in terms of protecting workers. And so all of the
5	statements we've received today have been duly noted
6	and entered into the record, and will be considered by
7	OSHA moving forward.
8	JUDGE DONALDSON: All right. And and thank you
9	very much.
10	Does anyone from attending members of the public,
11	do they have any questions for Dr. Cervantes?
12	MS. CARLON: There are none, Your Honor.
13	JUDGE DONALDSON: All right. Then, we can thank
14	you conclusively, Dr. Cervantes. Thank you for your
15	participation.
16	DR. CERVANTES: Thank you.
17	MS. CARLON: We are
18	JUDGE DONALDSON: I'll give you
19	MS. CARLON: now at the
20	JUDGE DONALDSON: okay.
21	MS. CARLON: Oh, sorry, Your Honor.
22	JUDGE DONALDSON: I was about to ask you if you



1	have anyone else on the speaking agenda?
2	MS. CARLON: Yes, I was going to so now that
3	we're at the end of the speaking order, I was just
4	going to recall any of our absent attendees from this
5	afternoon. I think we only have one, and that is
6	Joshua Trosclair. So if Joshua Trosclair is on the
7	line, and you've joined under a different name, please
8	use the raise-hand button at the bottom of your Webex
9	screen to indicate your presence.
10	And if you have called in, please use star three
11	to raise your hand.
12	At this time, he is still absent, Your Honor.
13	JUDGE DONALDSON: All right. Well, thank you for
14	checking to see if he might have joined us.
15	So having reached the end of the speaking order,
16	we're now we've concluded with all of the scheduled
17	witnesses for the day. I want to remind everyone
18	we've covered it very recently but you may submit
19	additional evidence or statements, respond to
20	questions, and so on. Of the matters that are relevant
21	to this proceeding.
22	And that can be done within 90 days of the end of



1	the hearing. That date is September 30th, 2025, and
2	that that point, the record for the rulemaking will
3	close.
4	On behalf of the Department of Labor, I want to
5	publicly thank everyone who's participated today,
6	giving your time, your testimony, responding to
7	questions, responding in the future to questions,
8	potentially. Thank you for participating in this
9	hearing today.
10	That goes for all of the participants for the
11	hearing. This and thank you very much for joining
12	and sharing an interest in this important matter.
13	Having concluded the speakers and all the other
14	comments, the hearing is adjourned for the day. So it
15	will be reconvened at 9:30 a.m. tomorrow morning,
16	Eastern Time.
17	We'll go off the record.
18	(Whereupon, at 3:36 p.m., the hearing was
19	adjourned.)
20	
21	
22	



WORD INDEX	131 4:18	135:4	28 66: <i>16</i>
,, one in 12211	134 4:19	2010 101:8	28-year-old 66: <i>1</i>
<\$>	13th 206:5	2011 91: <i>13</i>	29 7:16 67:1
\$1 19: <i>10</i>	141 4:21	92:5 119: <i>1</i>	68:20
\$1,379 149: <i>1</i>	14th 143:16	129:15	
172:1	15 53:16 77:12,	2015 83: <i>17</i>	<3>
\$10 162: <i>17</i>	13 164:15	2016 62:20	3,000 129: <i>17</i>
163:2	175:11 213:6	2018 46:4	3:36 220:18
\$100 35:1 60:11	15-minute	2020 129: <i>15</i>	30 22:3 82:7
\$11 48:2	164: <i>16</i>	2022 46:4 91:8	90:12 92:10
\$20 163:2	16.1 40:6	106:15 119:2	167:20
\$5 162: <i>17</i>	17 208: <i>13</i>	124:6 129:10	300 98:22
	174 5:2	135:5, <i>6</i> 176: <i>11</i>	106: <i>15</i>
< 0 >	18 3:5 198: <i>18</i>	2023 19: <i>1</i> 66: <i>1</i>	30th 6:9 8:19
0.1 29:8	1911 7:16	67:17, 20 83:8,	118:10 202:17
0.2 186:22	1951 91:2	<i>15</i> 106: <i>15</i>	220:1
0.25 49:20	1957 141: <i>18</i>	124:18 143:21	31,000 46:3
00001 1:1	1970s 36:19	2024 6:9 19: <i>11</i>	32,890 129: <i>15</i>
	1979 67:18	35:7 83:16	33 3:10
<1>	1980 90:22	106:13, 16, 17	33,890 119:2
1 1:14 29:6	1986 38: <i>15</i>	206:10	3327 149: <i>1</i>
40:17 79:15	1992 129:8	2025 1:14 8:20	34,000 135:8
1,000 175: <i>10</i>	135:4	57:10, 11 61:3	350 57:7
1.5 83:13, 21, 22	1995 91: <i>13</i>	106:19 109:9	36 28:14 39:8
1.6 83:13	1st 66:1	143:17 202:17	37 3:12
1.7 97:1		220:1	
1:00 79:6	<2>	2030 41:9 69:20	<4>
100 41:7 42:7	2 83:20 101:5	205 5:5	4,500 175:8
104 216: <i>12</i>	2,300 124:6	2050 69:20	40 112: <i>18</i>
105 4:10	2.0 84:2	20s 112:20	148:19 171:11,
11 1: <i>13</i> 91: <i>5</i>	2.5 34:22	210 106: <i>14</i>	18
110 118:8	2.7 83:14	2100 91:6	400 82:10
111 4:12	2.9 83:14 91:3	232 99:20	43 41:17 48:14
116 118:9 122:2	20 20:9 47:8	235,000 19:7	129:10 135:6
117 4:14	92:10 102:5, 8	24 35:6	433 48:14
12 1:13 3:3 83:10	134: <i>14</i> 155:6 200 41:8 69:20	24/7 153: <i>18</i> 250,000 101: <i>5</i>	45 3: <i>14</i> 467 106: <i>15</i>
123 4:16	101:9	25-year-partner	479 118:22
123 4.10 127 4:17	20008-3 194:5	25-year-partner 194: <i>1</i>	717 110.22
130 47:5	20008-3 194.5 2002 129:9	27 3:8	< 5 >
130 77.3	2002 127.7	21 3.0	
	I	I	I

5 208:13	9 61: <i>12</i>	abnormal 84:22	accident 181:21
5.8 46:20	9,000 175:7	85:9	acclimate 66:18
50 119: <i>13</i> , <i>19</i>	9,500 185:20	absence 20:1	acclimated
500 69:20 76:7	188:16	146:8	89:16 206:8
51 3:16	9:30 1:15	absent 78:7, 13	acclimates
527 106: <i>13</i>	220:15	219:4, 12	208:10
55 47:15	90 4:4 8:18	absenteeism	acclimating
56,000 19:8	54:9, 14 66:7	41:1 69:15	66:21
57 3:18	89:10, 22	Absolutely	acclimatization
	188:18 205:2	121:19 152:12	14:18 57:17
<6>	219:22	158:19 200:16	58:12 109:13,
6 91:5	900 101:9	202:3 215:21	<i>15, 17</i> 110:9, <i>10</i>
610,000 47: <i>14</i>	90-day 202:17,	ABT 5:8 79:14	114:2 <i>1</i> 147:2 <i>1</i>
64 101:20	19	abuse 195:4	148:2, 5 160:18
132:11	911 68: <i>12</i>	accelerating	161:5, 6, 11, 13
65 3:20	92 142: <i>13</i>	73:8 75:22	162:12 163:9
67 47:8	94 4:6	84:5 100:22	207:20
6th 67:1, 17	95 47:16	acceleration	acclimatize
	108:18 154:7	101:10	208:5
<7>	188: <i>1</i> 194: <i>17</i>	accepting 173:10	acclimatized
7.5 40:5	199:12	access 13:7	110:4 121:18
70 57:14 207:22	967 35:5	24:7 36:2 50:3	206:9 207:21
70,698 6:10	98 4:8 100:2	53:22 55:9	208:2, 6
71 92:7	99 199: <i>11</i>	73:19 79:22	accommodates
72 3:22		80:6, 9 100:11	35:17
73 58:14 92:6	< A >	114:18 118:17	accommodations
	a.m 1:15	126:11, 16	14:9 52:3 212:6
< 8 >	220:15	130:9, 18 136:4,	accompany
8 166: <i>11</i>	abandon 30: <i>10</i>	<i>15</i> 147: <i>11</i> , <i>12</i>	193:12
80 13:19 54:10,	ability 41:13	167:20 197: <i>14</i>	account 35:9, 11
13 59:7 89:14,	46:13 190:8	207:10	36:12 69:17
15, 21 101:20	able 10:13 23:2	accessibility	107:10 144:4
132:11 147:20	26:13 75:17	22:15, 19	145:3 147:14
155:2, 3, 6	80:19 133:15	accessible 14:22	153: <i>1</i>
82 4:2, <i>3</i> 49: <i>17</i>	151:9 158:5, 8	15:8 16:2	accountability
85 141:2 <i>1</i>	161: <i>1</i> 162: <i>17</i>	35:18 55:12	16:4 114:20
154:6 155:9	163: <i>1</i> 167: <i>18</i>	125:21 138:21	126:2 <i>1</i>
89 6:9	168:10, 19	197:20 203:16,	accounting
	178:16 203:19	20	126:3 156:3
<9>	211:5	accessing 15:5	accounts 34:21

	1		1
accoutrements	actual 20:21	114:13 144:16	adopted 179:11,
170:15	68:7 154:18	159: <i>14</i> 190: <i>6</i>	12
accuracy 178:6	168: <i>15</i> 185: <i>14</i>	addressed 24:10	adoption 62:16
accurate 7:4	acute 34:13	29:10 55:14	adopts 13:18
10:13 23:4	88:16, 19, 20	61: <i>19</i>	adults 113:11,
139:3, 9	adapt 91:21	addressing 16:7	19 115:10
accurately	92:2 145:15	adds 36:4	advance 51:19
11:16 81:17	adaptations	adequate 35:22	advancing 27:18
accustomed 11:3	208:13, 19	88:11, 12	advantage 119:9
achieve 146: <i>16</i>	add 23:2 36:9	124:22 144:2 <i>1</i>	advantages
182:4	114:4 201:10	209:18	85:12
acknowledge	added 78:5, 7	adequately	adversely 40:1
13:10	adding 19: <i>10</i>	86:11 87:21	advisories 53:17
acknowledged	157: <i>11</i>	adhere 62: <i>16</i>	198: <i>16</i>
59:13 61:4	addition 18:16	63:15	advisory 196: <i>17</i>
Act 14:8 28:7	21:15 24:3	adhered 80:10	advocacy 34:3
30:10 31:13	36:8 69:6 88:7	adjourn 78: <i>17</i> ,	51:18 52:1
70:6 102:19	89:3 143:21	19 79:5	106:3
106:10 122:4	145:19 146:5	adjourned	advocate 55:11
125:14 131:5	175:18 190:2	220:14, 19	94:19 127:21
ACTION 3:6,	207:17	adjustments	128:4
19 4:1, 9, 11	additional 8:17	49:3	advocates 12:10
20:3 21:20	10:3 16:20	administer 67:5	19:15 82:12
27:21 41:9	22:12 32:20	68:20	117: <i>15</i>
43:19 61:1	37:4 39:13	ADMINISTRATI	advocating
65:7, 9, 13	42:19 50:15	ON 1:5 30:4	15:19 99:1
69:19 71:7	56:6 71:12	66:15 132:4	128:2
73:21 75:19	73:11 107:21	Administration's	aerospace
81:19 82:9	138:1, 6 140:2	6:5 30:7	142:12, 14
83:1 105:18	197:12 219:19	143:17 149:5	145:8 153:15
106:2 110:19	Additionally	Administrative	affect 69:13
112:3 114:13	68:14 92:9	2:3, 4 6:15	affiliated 65:6
116: <i>11</i>	138:20 210:3	27:21 215:17	98:13
activated 17:20	217:8	admiring 164:2	affiliation 9:9
Activation	additions 35:10	admissions 19:8	11:14, 21 17:17
84:19 85:1, 7	36:11 206:21	admit 204:2	27:1 33:14
active 123:6	address 8:7	adopt 16:9	37:20 45:7
activities 47:7	12:20 21:7	114:16 127:7	51:7 56:19
65:10	28:6 48:16	131:9 151:4	65:1 72:6
activity 113:7	63:10 101:15	180: <i>13</i>	81:21 94:12
			98:12 105:15

		1	
111:18 117:4	agricultural	alive 66:22	56:21 57:4
123:1 141:8	13: <i>3</i> 96: <i>4</i>	68:17, 21	84:6 113:11
174:20 205:11	100:7 124:1, 20	allotted 7:21	135:17 148:22
afford 46:18	agriculture	80:9	Americans 14:8
58:18 102:4	28:22 48:5	allow 7:20	18:7 48:20, 21
120:1 177:1, 2,	134:9, <i>13</i> , <i>16</i>	51:14 137:1	86:11 119:20
3 194:3	206: <i>1</i>	208:3	America's 116:4
affordable	ahead 27:8	allowed 147:10	135:14
126:17	45: <i>4</i> 51: <i>12</i>	allowing 147:2	AMFree 27:17
AFL 43:9	56:22 72:11	161: <i>17</i>	amounts 155:13
103:16	79:5 82:4, <i>17</i>	allows 207:13	ample 59:11
AFL-CIO 44:6	94: <i>16</i> 98: <i>15</i>	alongside 128:19	216:18
afraid 124: <i>13</i>	105:20 111: <i>13</i>	altered 144: <i>17</i>	amusement
125:6	129: <i>1</i> 140: <i>15</i>	215:3	47:18, 20
afternoon 10:5	185: <i>3</i> 202: <i>14</i>	alternative	AMY 2:10
78:20 79:4, 6	aid 50:5 67:6	148:4 161:8, 11	93:10 97:18
111:20 117:10	68:9, <i>20</i> 88:9	172:10	103:2 110:14
174:17, 21 219:5	212:22	alternatives	116:7 120:17
age 95:2	aims 28:6	32:11 149:19	137:10 138:4
agencies 104:18	air 100:1 123:5	alternave 148:4	139:14 150:7
115:9 126:10,	127:2 <i>1</i> 128:2	altogether	152:18 173:8
17 204:6	167:20 188: <i>11</i>	177:20	179: <i>19</i> 187: <i>6</i>
agency 21:3	air-conditioned	amateur 85:10	201:9 214:5
63:3 149:13	179: <i>1</i> 188:9	ambassador	analysis 45:16
184:11 193:15	208:7 213:15	65:6	107:5 109:3
agency's 32:9	air-conditioners	ambient 153:17	171:6
Agenda 57:12	100: <i>13</i>	ambiguity 14:19	Analyst 33:17
78:5 140:12	air-conditioning	ambiguous	34:1 38:13 45:9
219:1	92:11 170:7	157:16	Anastasia
ages 85:14	aircraft 142:9	Ameen 4:6	121:11
aggression	Aiswarya 3:3	94:11, 13, 17, 18	and/or 89:14
132:22	11:20, 22 12:7	97:17, 21 98:8,	194:12
ago 112:9	albeit 45:19	10	ANGELA 2:3
180:19 181:17	alcohol 198: <i>11</i>	America 38:16	6:14
212:13	alert 133:15	60:4 142:1	anger 132:21
agree 57:17	Alexis 3:14	175:17	angle 165: <i>3</i>
215:18, 20	45:6, 8	AMERICAN	angles 57:9
Agreement	align 14:8	3:4, 6, 17 12:12,	Anheuser-Busch
83:18	aligns 21:8	<i>18</i> 18:5 27: <i>13</i> ,	186:20
agrees 157:21	alike 53:20	20 28:1, 2 29:3	announcements
		31:9 40:16	11:7

app 80:12, 14 apparent 13:12 Apparently 67:12, 15 appear 7:12 9:6 appearing 26:14 appears 84:4 applaud 12:14 87:4
appliances
142:18, 19
application 80:3
81:6 85: <i>1</i>
applied 197: <i>12</i>
applies 196: <i>1</i>
apply 6:13
28:12 156:18
applying 23:17
appreciate 34:6
37:16 49:3
51:14 72:13, 14
112:5 140:10
171:20 172:11
173:12 179:14
184:14 200:11,
21 201:14 202:4 203:21
appreciated 56: <i>16</i> 204: <i>14</i>
appreciates
22:5 147: <i>13</i>
approach 32:4
42: <i>1</i> 43: <i>14</i>
58:4 109:4
156:5 163:11
198:3
approaches
191:20
appropriate
20:6 28:7

75:20 92:19

93:3 130:14
144:19 168:22
169:2 173:2
207:9, 15 213:16
appropriately
146: <i>10</i>
approved 48:17
106:18
approximately
82:10 141:21
207:22
April 106:19
Arberry 43:7, 9
44:5, 20 103:15,
<i>16</i> 105:5
arbitrarily 31:21
arbitrary 145:3
146: <i>1</i>
area 156:6
178:2 <i>1</i> 179: <i>3</i> , <i>5</i>
areas 14:18
18:10 22:3
53:20 54:12
91:13 95:12
126:19 147:12
154:22 158: <i>13</i>
170:7 175:22
179:1 183:9
area's 66:7
arguably 41:18
argument 7:22
157:22
Arizona 53:17
112:2, <i>18</i>
117: <i>13</i> 118: <i>4</i>
124:19 145:7
153:16
arrival 90:21
arrive 22:4
50:7
_ ~ .

arrived 66:3
172:6
arteries 85:4
article 91:9
176: <i>11</i>
asbestos 212:1
Ashmead 4:4
81:19 83:4
90:9 93:13
Ashton 4:14
117:3, 5, 12
asked 9:16
80:22
asking 9:3, 11
10:6, 22 26:11
132: <i>3</i> 164: <i>14</i>
202:12 211:18
as-needed
183:12 189:13
195:4, 11
aspects 63:2
asphalt 122:3
assembled
142:10
assemblies 142:3
assembly 142:17
asserting 31:7
assess 25:8
assessing 45:20
72:19 73:12
assessment 13:11 63:5
73:3, 17 75:3
91:1 161:20
217:1
assign 148:3
assistance 61:18
87: <i>12</i> 203: <i>15</i>
associated 19:5
1
34:11, 15 35:4

40:9 85:22
95:16
ASSOCIATION
5:1, 3 27:18
141:21 157:14,
21 174:22
175:2, 9 205:16
assumed 90:18
assure 7:18
113:1 117:20
assuring 108:5
asthma 95:13
atherosclerosis
85:4
athletes 84:17
85:11, 12, 14
Atlanta 94:20
Atlantic 41:5, 7
60:9
at-risk 32:1
75:18
attack 69:5
attacks 85:6
attempting
182:2
attendant 110:5
attendee 26:18
64:18 78:7
111:11
attendees 79:21,
22 80:8 219:4
attending 90:17
174:8 218:10
attention 63:2
179:15 213:7, 17
attire 147:15
attorney 12:8
198:10
AUDIO 172: <i>12</i>
audited 172:19

August 6:9
Austin 72:9
author 212: <i>12</i>
authority 31:5,
8, 10
auto 80:6
automated
164: <i>18</i> 165: <i>14</i>
166: <i>5</i> , <i>16</i> 167: <i>4</i>
automatically
79:22
automation
148: <i>14</i>
automotive
141:19 142:16
145:9 172:17
available 7:8
32:9 46:6 49:8,
20 53:22
average 69:19
91:3 96: <i>18</i>
187:2
avoid 30:22 99:12 148:12
aware 25:6, 12
54:22 63:6
73:7 76:14
85:21 109:18
110:4 193:11
207:11 209:20
207.11 207.20
< B >
BA 181:4
babies 69:12

back 27:5

3, *5* 148:*6*

67:*11* 75:*15*, *16* 86:*16*, *18* 141:*1*,

156:2 162:11, 20 180:3 186:3 187:19 188:6

189:10 194:19
199:2
backbone 60:4
134:8
background
166:7, 18
189:20 211:20
bad 134:2
160:6
BALANCE
3: <i>15</i> 51: <i>10</i> , <i>18</i>
52:6 56:5
Balance's 51: <i>17</i> bankrupt 31: <i>15</i>
bare 120:13
barrels 175:10
Barrera 64:17
78:9
barriers 13:8
15:4
base 104:10
Based 9:20
20:20 44:19
20:20 44:19
20:20 44:19 47:1 72:8
20:20 44:19 47:1 72:8 94:20, 21 108:6
20:20 44:19 47:1 72:8 94:20, 21 108:6 10 159:14 161:19 166:12 172:16
20:20 44:19 47:1 72:8 94:20, 21 108:6 10 159:14 161:19 166:12 172:16 baseline 44:4
20:20 44:19 47:1 72:8 94:20, 21 108:6 10 159:14 161:19 166:12 172:16 baseline 44:4 208:17
20:20 44:19 47:1 72:8 94:20, 21 108:6 10 159:14 161:19 166:12 172:16 baseline 44:4 208:17 basic 55:18
20:20 44:19 47:1 72:8 94:20, 21 108:6 10 159:14 161:19 166:12 172:16 baseline 44:4 208:17 basic 55:18 102:18 104:19
20:20 44:19 47:1 72:8 94:20, 21 108:6 10 159:14 161:19 166:12 172:16 baseline 44:4 208:17 basic 55:18 102:18 104:19 118:3 119:11
20:20 44:19 47:1 72:8 94:20, 21 108:6 10 159:14 161:19 166:12 172:16 baseline 44:4 208:17 basic 55:18 102:18 104:19 118:3 119:11 136:5, 15, 22
20:20 44:19 47:1 72:8 94:20, 21 108:6 10 159:14 161:19 166:12 172:16 baseline 44:4 208:17 basic 55:18 102:18 104:19 118:3 119:11 136:5, 15, 22 186:15 187:3
20:20 44:19 47:1 72:8 94:20, 21 108:6 10 159:14 161:19 166:12 172:16 baseline 44:4 208:17 basic 55:18 102:18 104:19 118:3 119:11 136:5, 15, 22 186:15 187:3 basically 74:22
20:20 44:19 47:1 72:8 94:20, 21 108:6 10 159:14 161:19 166:12 172:16 baseline 44:4 208:17 basic 55:18 102:18 104:19 118:3 119:11 136:5, 15, 22 186:15 187:3 basically 74:22 199:10
20:20 44:19 47:1 72:8 94:20, 21 108:6 10 159:14 161:19 166:12 172:16 baseline 44:4 208:17 basic 55:18 102:18 104:19 118:3 119:11 136:5, 15, 22 186:15 187:3 basically 74:22 199:10 basis 74:7
20:20 44:19 47:1 72:8 94:20, 21 108:6 10 159:14 161:19 166:12 172:16 baseline 44:4 208:17 basic 55:18 102:18 104:19 118:3 119:11 136:5, 15, 22 186:15 187:3 basically 74:22 199:10

bear 13:1 96:5
bearing 127:5
becoming 88:4
96:17 125:12
beer 175:11
199:7
beginning 6:10
10:22 74:19
begins 74:5
behalf 11:22
27:13 43:10
71:7 93:14
94:14 97:22
110:18 111:8
116:11 120:21
131:6 134:5
141:10 152:5
158:1, 3 159:10,
15 162:8
167:10, 11
173:13 174:3
205:18 213:22
220:4
behavior 132:21
behold 83:16
believe 11:8
25:21 30:5
36:11, 14, 16
73:3, 11 108:19
126:19 133:20
137:7, 18
144:10 151:17
152:22 165:2
183:4 200:14
201:13 202:13
207:3 212:12
215:15
believes 165:9
bell 66:5
belt 178:19
benefit 29:4

benefits 31:16,	birth 53:7	bolts 142:2	165:10, 11, 17
19 38:22 39:6	69:11	164:2	167:7, 13 177:6
170:2 <i>1</i>	bit 6:11 33:19,	born 136:17	180:19 183:13,
best 10:19	20 161:4 166:6,	borne 101:14	18 188:13
59:11 84:21	17, 21 181:2	bosses 67:4	189:8, 14, 22
176:13, 18	197:15 198:2	bottle 112: <i>14</i>	190: <i>3</i> , <i>9</i> 195: <i>11</i>
bet 201:1	bits 178:19	bottles 112: <i>12</i>	196:9
BETTER 3:15	black 13:5	bottom 61:8	breathtaking
19:2 22:18	40:5 95:1, 9, 22	81:6 219:8	28:11
38:2 51:10, 17,	96:1, 10	boundaries	BRENDA 2:9
<i>18</i> 52:6 56:5	BLKHLTH 4:5	156:10	168:5, 6, 13
61:15 76:15	94:14, 21 97:22	boundary 156:7	187:9, 13
133:16 136:8	blocks 48:14	Bracero 134: <i>12</i>	Brett 212: <i>13</i>
138:3 157:20	blood 84:15	brake 142: <i>17</i>	brew 175:16
190:6	88:8, 10, 12	branch 196:5	178:21 187:22
beverages	208:11	break 21:6	189:2
198:12	Blow 191:6, 8,	23:17 54:5	breweries 175:7,
beyond 101:3	11	74:20 75:13	20 176:12
108:20 212:22	BLS 29:6	79:13 124:22	185:20 189: <i>1</i>
bias 31:1	board 82:8	140:13, 15, 17	196: <i>19</i>
biased 32:4	105:21 205:16	141:2, 4 144:18	BREWERS 5:1
Biden 30:6	boards 147:7	164:16 165:7	157:14, 21
big 25:21	bodies 87:21	167:16 177:7	174:22 175:2, 3,
159:9 178:2	194:8	179:5, 6 188:22	8 176:19
182:2 <i>1</i> 183: <i>1</i>	body 21:20	189:11 190:20	177:22 185:16
194: <i>1</i>	50:6 75:12	191:9, 20, 22	186:7 188:8, 11
biggest 169:10	85:3, 8 87:22	192:3 195:5	200:3
177:1, 5	88:6, 8 89:6	196:5, 20	brewery 175:14,
Bill 3:8 26:17	91:18, 21	breaks 21:2, 12,	17 181:3, 19
27:6	107:19 108:6	13, 14, 17, 18	189: <i>1</i> 196:2
billion 19:10	208:10, 19 216:9	23:12, 19, 22	198:12
34:22 35:1	body's 46:12	24:18 28:13	brewing 176:6
40:5, 6, 17 41:7,	84:8, 19	31:8 54:1, 9	186:18
8 42:8 48:3	bold 18:7	85:15, 20	Brian 162:4
60:11 61:12	boldly 125:14	102:17 107:22	163:18
69:18, 20	bolstered 45:16	114: <i>19</i> 118: <i>14</i>	bridge 24:5
billions 28:18	BOLT 4:20	129:5 130:10	48:19 142:4, 7
30:19	141:10, 17	133:13 144:18	brief 160:5
bills 102:5	154: <i>14</i> 158:22	147:10, 16	162:10 172:14
129:19	159:10 173:13	161: <i>17</i> 163: <i>13</i>	briefly 39:5
BIPOC 96:2	174:2	164:9, 20	

45:14 84:8	60:19 211:17	78:10 81:5	care 13:7
briefs 138:5	burdened 86: <i>14</i>	219:8	18:19 36:1
bring 88:8	burdens 115:19		40:14, 17 46:19
bringing 112: <i>13</i>	burdensome	< C >	51:20 60:19
brings 215: <i>1</i>	57:20 147:22	C.W 66:2	65:10 82:20
broad 90:13	Bureau 47:13	calculate 173:4	109:19 111:22
148:12 188:17	118:22	calculated 173:6	113:14 114:2, 3,
broader 60:22	Bureau's 47:2	California	<i>5</i> 116: <i>1</i> 119:20
63:17 114:8	Burga 4:16	49:16 53:17	120:1 126:17
broadly 60:13	122:21 123:3, 4	70:8 145:7	136:15 165:15
broke 118:8	138:7, 12 139:5	153:16	170:12 182:9
broken 100:13	buried 194:8	call 78:8 123:4	career 82:20
brother 128: <i>11</i>	burn 108:16	194:7 213:10	careful 59:2
129:2 <i>1</i>	burns 108:14	called 9:15, 18	CARLON 5:8
brunt 127:5	155: <i>14</i>	11:13 64:20	11:19 17:10, 16
buddy 89:14	business 30:6	68:12 78:11	26:9, 12, 17
170:10, 11	44:9 59:1	80:21 81:2, 8	33:7, 13 37:14,
208:22 210:4	60:20 78:18	141:17 175:16	19 43:7 45:2, 6
211:6 214:10, 12	87:12 141:17	195:9 219:10	51:2, 6 56:14,
budget 30:20	143:22 144:1, 2,	calling 130:12	18 64:13, 16
Buenas 131:16	5, 7 146:19	camera 38:5	71:22 72:5
build 15:10	178:10 184:2	65:3 80:20, 21	77:20 78:6
116:1 128:10	187: <i>1</i> 194:2	117:11 131:15	79:10, 14 94:6,
132:8 136:2 <i>1</i>	197:5 198:22	134:2	11 98:9, 11
builder 57:5	203:17 204:7	campaign	103:14 105:9,
building 55:1	businesses	124:17	<i>14</i> 111:7, <i>10</i>
130:3 135:18	25:15 27:20	Campesinos	116:2 <i>1</i> 117: <i>3</i>
142:6	29:16 34:14	124:16	121:9 122:17,
built 126:22	52:18 59:12	candidate 73:17	20 140:7, 14, 19,
137:3 142:7	60:3, 11 61:9,	CAP 18:5 19:1,	21 141:6
built-in 153:20	20 63:15 87:13	11, 22 20:17	174:10, 19
183:10	99:19 104:15	21:1 22:4 25:22	204:19 218:12,
bulb 20:18	114:5 136:8	capacity 87:13	17, 19, 21 219:2
25:5, 7	146:20 157:16	141:22	Carlos 4:18
Buono 4:2	175:12 182:3	caption 80:3	122:21 131:17
81:20 82:1, 3, 6,	188:2 197:6, 14,	captioning 80:1	Carol 3:20
16 86:17 90:5,	20 199:4	car 121:22	64:22 65:4
6 91:15 93:12,	203:17, 21	142:4	carry 108:1
16	button 9:14, 17	cardiovascular	case 21:20
burden 13:2	26:20 64:19	88:14 89:1	30:22 112: <i>1</i>
		95:14	124:15 188:20

189: <i>3</i> 190: <i>19</i>	73:2, 20 146:6	characterization	154:15 164:22
199:6 216: <i>16</i>	154:22	216:4	clarified 21:21
cases 8:4 13:21	certainly 16:21	check 67:11	clarify 8:16
112:18 115:1	42:20 138:6	71:19 129:3	154:3 190:15
159:6 160:2	161: <i>3</i> 181: <i>1</i> , <i>14</i>	174:5 188:5	191: <i>18</i>
213:14 216:5	195:20 196:2	203:8	clarifying 15:15
casting 155:12	208:6 210:11, 22	checking 78:3	clarity 151:10
Catalina 3:10	certified 105:21	219:14	157:19 178:20
33:13, 16, 22	Cervantes 5:5	checks 49:14	180:17 195:20,
cause 18:22	205:11, 13, 14	170:10, 11	21 197:12
68:12 69:4	214:3, 7, 8, 19	Chenay 43:9	202:10
71:3 85:5	215:12, 20	44:5 103:16	class 128:3, 6
86:22 99:13	217:6, 19	child 215:2	131:7 134:7
196: <i>1</i>	218:11, 14, 16	chili 101: <i>1</i>	Classification
caused 41:1	cetera 156:9	choice 189:2	148:22
42:9 85:17	CFR 7:16	choose 15:16	classrooms
86:14 129:16	chain 146:18	137:13	101:2
159:4	chair 82:8	Christman	Clean 123:5
causes 129:10	105:17 167:17	121:9, 11 122:12	127:21 128:2
132:20	challenge 61:17	chronic 69:1, 5	clear 31:9
causing 83:7	183: <i>17</i> 184: <i>1</i> , <i>4</i>	88:20 89:1	52:22 62:14
213:20	198:8	95:13, 15 108:6	88:18 110:9
CC 80:2	challenges	112:22 113:19	113:6 118:16
cell 142:5	146:9 165:8, <i>14</i> ,	chronically	119:3 130:8, 20
Celsius 83:14, 20	15	74:11	136:11 157:18
Census 47:2	CHAMBER 3:7	CIO 43:10	178:17 179:2, 7
CENTER 3:4, 6,	27:2, 14, 17	103:17	184:6 193: <i>11</i>
9 18:5 27:20	chance 112:5	circle 194:19	198:3
33:17 34:1, 2	change 18:8	circling 189: <i>10</i>	clearly 11:15
40:10, 15 91:1	67:22 83:3, 7	circulars 198: <i>15</i>	14:16 15:3
155:7	93:1 99:6	cited 60:10	21:16 81:16
centered 12: <i>13</i>	112:4 113:7	cities 41:20	132:3 177:15
centers 28:16	117:7 125: <i>11</i>	43:21 106:11	clicking 80:1
115:13	127:1 157:2, 4	118:5, 6, 11	clients 194: <i>3</i>
Centigrade	changed 90:22	Citizen 41:4	CLIMATE 3:19
83:13	changes 22:17	city 117:14	4:1, 7, 9, 11
central 90:16	45:19 91:18	118:19 127:22	30:8 65:7, 9, 13
CEO 72:8	132:20 182:15	claims 18:20	70:1 71:7
certain 13:20	190:4	114:4	81:18 82:9, 12
39:17 49:15	changing 93:3	clarification	83:1, 3, 7, 17
	115:22		88:4 90:19, 22

93:3 98:14, 22	coffee 187:2	comes 53:10, 13	12 190:5, 11
99:2, 5 105:18	coffers 60:19	154:20 158:6	193:6, 11 196:3
106:1, 2, 4	co-founder 72:8	181:3 193:2	200:2 202:6, 11
108:17 110:19	cognitive 91:18	comfortable	203:18 217:10
112:3, 4 113:7	92:18	129:13	220:14
114:8, 14	cohort 75:8	coming 74:12	COMMERCE
115:22 116:11	cold 57:16 58:9,	134:13 187:22	3:7 27:2, 14, 17
117:5, 7, 13, 16	22 143:9 144:18	commands	commercial
120:9 123:5, 16,	colder 155:22	28:12	101: <i>1</i> 142:9
17 124:17	collaboration	commend 18: <i>11</i>	commitment
125:10 127:1,	106:20	comment 6:20	59:18 116:3
21 128:3 129:6	collaboratively	10:9 17:1 22:5,	131:12
131:3	115:7	14 25:3 33:21	committed 18:6
CLINICIANS	collapsed	34:6 63:19	99:1
3:19 4:1, 9	112:19 124:21	143:18 152:21	committee
65:6, 8, 13 71:7	colleagues 24:13	154:4 157:6, 9,	76:14 78:2
81:18 82:9	53:3 135:2	<i>15</i> 162: <i>19</i>	commodity
83:1 94:5	138:18	163:5 172:20	169:6
105:18 106:1	collected 63:17	185:7 188:8	common 85:17
110:18 205:21	college 128:18	190: <i>11</i> 196: <i>6</i>	86:4 124:19
212:8	132:19	197:9	132:6 165:22
CLINICS 5:4	color 12:11, 22	commenters	170:13 209:16
126:18 205:17,	40:2 75:5	23:14 157:13	214:21 215:4
20, 21	95:10, 11 96:1,	comments 8:2,	commonsense
clock-in 147:7	16, 21 97:9	<i>15</i> 12: <i>3</i> 16: <i>14</i>	62:1 102:15
close 8:21	101:16 131:20	23:12 24:14	135:22
34:14 96:8	Colorado 49:2 <i>1</i>	43:18 44:7, 8,	Commonwealth
117:1 220:3	70:8	14 62:10, 22	19:2
closed 6:21	Columbia	63:10 94:16	communicate
79:22	141:18	117:9 120:2 <i>1</i>	54:21
closer 185:13	coma 113: <i>1</i>	137:14 138:20	communication
closing 42:3	combination	139:17 143:16	15:7 24:4
61:17 115:16	137:15 150:18	144:8 147:19	147:7 192: <i>14</i>
clothing 107: <i>11</i>	180:8	150:17, 20	communities
COALITION	combined 87:18	151:22 152:17,	12:11 14:15
3:2 12:1, 9	197:5	20 153:8	16: <i>1</i> 69: <i>16</i>
16:22 82:10	come 6:3 125:5	158: <i>11</i> , <i>14</i>	95:5, 11 96:2
code 148:22	128:6 135:7	161:2 168: <i>12</i>	102:11 114:3
155:17	153:12 167:7	169:3 171:8, 22	116:2 117:15
codes 75:5	170:10	173:12 175:2	123:20 128:3,
		180:7 189: <i>11</i> ,	10 131:20

	1	1	1
132:19 133:7	completed	concept 72:17	14 38:18 53:2,
136:9	36:17 105:22	73:12 76:4	5, 11 54:11
community 12:9	171:15	concepts 73:9	58:13 69:4
15:9 16:12	completely	concern 23: <i>13</i>	70:15 84:14
30:6 36:20	121:2 <i>1</i> 213:2 <i>1</i>	185:5 189: <i>13</i>	87:1, 18 88:3,
47:2 65:11	completes 9:1	193:10 195:4,	14, 17 95:1, 13
94:22 115:9	compliance	15 210:11 215:4	96:9 100:10
123:10, 18, 22	15:11 28:19, 20	Concerned 40:3	108:2, 7 113:20
127:9	29:20 60:5	47:12 60:5	115:5 117:20
community-	62:13, 15	concerning	119:7 121:20
based 106:22	148:20 149:1	95:20	122:5, 9, 10
companies 76:3,	157:20 171:12,	concerns 23:16	125:12, 19
6 142:15	17 172:1, 15	24:4 57:17	130:1, 16
146:10, 18	194: <i>17</i> 199: <i>5</i>	83:2 109:16	136:12 143:12
148:18 158:4	203:15 207:13	177:8 190:7	145:13 158:12
170:6 171:10	complicated	193:7 201: <i>11</i>	168:10 186:8
199:2, 4	166:9	concise 198: <i>4</i>	208:10, 17
company 44:19	complications	conclude 16:6	211:12
75:5 76:2	86:15	72:2 140:9	conduct 107:5
128:12 174:2	comply 63:15	204:21	146:22 173: <i>1</i>
175:4 186:18	157:12 172:19	concluded 66:15	conducting 7:3
compared 102:3	176:13 177:10	219:16 220:13	confident 55:2
133:5 186:20	178:11, 13, 14	concludes 25:21	conflict 30:13
compensation	181: <i>16</i> 184: <i>1</i>	32:13 64:3	conflicting 57:20
18:19 21:9	201:13	76:20 79:11	conflicts 32:7
40:19 61:11	complying	105:11 139:18	confused 210:5
112:1 114:4	153:10	173:15 202:7	211:4 215:2
compete 85:11	components	conclusion 10:4	confusion 84:16
competent	47:1, 4 142:12	172:7 213:19	209:15, 22
14:22 55:11	175:2 <i>1</i>	conclusively	213:9 214:20
115: <i>14</i>	comprehensive	218:14	connected 81:1
complained	12:15 52:15	concrete 128:7	conscious 68:10
66:6 100:7	114: <i>17</i>	condition 88:3	consciousness
complaint 109:9	compromised	213:13	213:10
214:21	104:3	conditioned	consequences
complaints	computer 142:4	167:21 188:12	96:6 101:4
99:20 106: <i>14</i>	comunidad	conditioning	146:12 148:13
109:10	123:7	100:2	conservative
complete 7:4	concentrate 8:14	conditions 13:6	46:7
174:7	concentrations	14:10 18:13	consider 14:16
	145:7	19:19, 20 21:2,	32:11 84:8

104:1 109:8	continue 42:1	conversations	171:9, 21 172:1,
116:22 163:2 <i>1</i>	52:15, 21 70:2	19: <i>14</i>	3, 6, 7, 9 200:9
consideration	81:12 91:5	converted	costly 39:21
13:15 16:13	101:11 104:16	181: <i>13</i>	costs 18:19
50:9 97:15	125:14 127:10	converts 177: <i>11</i>	19:5, 10 28:19
considered	129:22 133:18	cook 128:5	30:20 31:20
60:14 195:7	134:19 140:11	cool 24:7 88:6	35:3, 4 40:14,
210:2 218:6	147:3 212:20	147:12 179:3	16, 18, 19 46:17
consistent 21:6	continues 83:22	188:13	60:20 114:3, 6
43:12 74:7	97:6 112:2 <i>1</i>	cooled 68:11	116:1 149:2
121:15	147:16	87:21	172:3 199:5
consistently	continuing 149:8	cooling 21:22	Council 41:5, 7
124:9	continuum	34:15 84:11	60:9
constantly 129:3	209:5	88:1, 9 107:18,	counsel 177:3
construction	contract 126:6	20 145:22	countdown 80:9
13:3 20:9 24:5	137:22	147:15 163:12	counter 109:19
29:1 47:17, 20	contractor	170:14, 20, 21	counterproductiv
96: <i>4</i> 100: <i>11</i>	11:11, 17 78:4	213:6	e 182:5
101:1, 21 119:5,	79:1, 15	coordinating	counties 47:8
<i>14</i> 124:2 128:5	contractors	126:9	country 34:19
132:12 134:9,	29:17	coordination	36:15 52:10, 14
20 135:15	contracts 146:3	138:8	54:7 55:9
197:3 205:22	contributed	copious 155: <i>13</i>	95:10 96:7, 12
consult 24:13	159:4, 7 160:2	core 20:10	97:7 118:1, 5, 7
consultants	contributing	21:10 88:7	123:11 124:20
177:3 194:12	134:8 174:4	corner 80:2	129:8 131:6, 8
consultation	control 142:18	coroner 216:7	134:11 137:3, 5
61:20	207:9, 19	correct 68:8	149:8, 15
consulting	controlled 129:7	79:10 98:3	156:13 162:7
178:15	145:21	154:10 202:18	175:8 208:8
consumer	controls 58:19	correlation	country's 134:8
142:20	107:16, 17, 18	133:2	county 156:8
contemplated	170: <i>5</i> 187: <i>11</i>	corresponding	couple 23:11
109:8	convenience	171: <i>15</i>	48:9 156:4
content 6:22	100: <i>1</i>	cost 28:10	175:4 177:1, 8
context 126: <i>4</i>	convention	31:16 41:6	186:17 187:15
165:9	109:22	42:6 58:22	205:5 207:16
contiguous	converging	59:3 60:5, 7, 8,	course 47:12
91:10	113:4	15, 17 62:12	106: <i>1</i> 138: <i>4</i>
contingent	conversation	113: <i>14</i> 148: <i>16</i>	139:3 176:2
15:18 57:7	58:6		204:22

court 10:12, 16	143:5	cuts 40:7	129:3 135:11
11:15 31:11	critically 119:15	cycle 196:20	142:5 154:20
81:16	Cross 196:12	eyele 130.20	162:21 219:17
cover 72:16	197:22	< D >	220:14
155:19	cross-purposes	dad 128:7, 22	daycare 28:16
coverage 41: <i>15</i>	198:6	129:21	days 8:18 19:6
43:12 48:18	cross-training	daily 47:7	39: <i>13</i> 66: <i>19</i>
119:20	146:6	122:10 147:8	92:7 96:14
covered 55:17	crucial 15:9	dairy 134:15	106:8 110:7
175:15 219:18	crux 176:15	damage 112:22	128:22 129:18
covering 136: <i>17</i>	culturally 14:22	danger 100:22	144:19 175:21
167:6	35:18 55:11	124:14	205:2 208:14
coworker 68:14	115:14 125:21	dangerous	210:13 212:13
coworkers 66:8,	126:3 130:13	92:22 96:17	219:22
11 67:2, 7, 10,	139:9	99:13 125:12	de 177:16
13 68:8, 17	culture 55:2	135:1 181:6	dead 67:14
214:14	123:8 167:15	dangerously	155:2, 5
cracks 126:8	cumulative	128:21	deadliest 117:16
craft 117:15	102:12	dangers 114: <i>12</i>	deadline 202:11
cramps 67:22	curious 43:11	darndest 178:12	deadly 12:18
209:8, 9	103:18	data 25:13	123:13 125:13
create 44:17	current 61:21	46:5, 6 47:14	deal 122:5
115:19 189:16	144:10 146:5	92:5 109:9, 15	dealing 204:5
195:9 207:8	148:20 158:17	156:9 158:10	dealt 99:3
creates 74:12	171:12 208:9	168: <i>14</i> 189: <i>4</i>	death 53:12
creating 14:6	Currently 17:20	200:18 201:1	66:15, 16 68:12
creative 54:19	21:5 25:13	216:22	88:17 99:14
crews 96:4	54:2 59:17	databases 204:4	106:9 113:19
135:15	70:13 75:9	datasets 215:18	124:9 125:4
crisis 14: <i>3</i> 30:8	81:14 154:12	date 220:1	207:20
95:21 120:9	158:12, 15	Dawson 3:16	deaths 18:22
123:16 127:2	167:6 170:5	51:6, 8, 9, 13	29:7, 9 35:6
129: <i>13</i> 131: <i>3</i>	186:7 206:12	56:3, 5, 15, 17	59:19 60:18
critical 12: <i>17</i>	208:22	Day 1:13 11:2	61:14 87:1, 2, 3
13:12 15:21	customer 144: <i>15</i>	12:22 13:4	91:14 92:8, 20
19:20 21:9	customers	17:13 66:17, 19	106:13 208:1
48:19 55:1, 10	112: <i>13</i> 146: <i>4</i>	67:18 68:3	212:2 216:4, 5
58:3, 12, 14	customs 198:19,	75:21 80:6	debated 114: <i>15</i>
87:7 92:19	20	92:8 110:6	debrief 63:18
93:1 119:8	cut 30:14	120:8 123:15	decade 135:8
		124:5 127:13	

decades 18: <i>15</i>
87:16 111:22
128:7
decisions 12:13
211:19
decline 92:18
declines 69:17
decrease 109:10
133:14 212:16
decreased 69:14
decreases 133:10
dedicated 27:18
179:5 188:22
deemed 169:1
deepen 127:2
deeper 63:9
defeat 31:10
define 15:14
defined 14: <i>14</i>
defining 14: <i>17</i>
definitely
153:11, 22
154:16 156:11
157: <i>1</i> 162: <i>5</i>
165:13 167:9
168:18 169:5
170:8 172:13
definitions 36:5,
9
deflating 31:20
DEFOE 2:8
23:8, 9, 10
24:15 62:7, 8
63:20 164:9, 10
166:20 168:1
189:7, 9, 19
191:17 192:2, 5,
8, 10, 13, 16
193:4, 19, 21
194:19, 22
195:11, 17

196: <i>4</i> , <i>14</i> , <i>21</i>
197:7, 18
199: <i>14</i> , <i>17</i> , <i>20</i>
degree 13:19
54:9 83: <i>13</i> 84: <i>1</i>
degrees 49:17
54:11, 13, 14
59:7 66:8
83:13, 14, 20, 21
84:2 89:15, 21,
22 91:3, 5
100:3 108:18
118:8, 9 122:2
147:20 154:6, 7
155:3, 6, 9 169:9
dehydrated
74:4, 11
dehydration
69:1 72:20
73:7 74:8 75:7,
9 84:13 D 1 4 2 01 10
Del 4:2 81:19
82:1, 3, 6, 16
86:17 90:5
91: <i>15</i> 93: <i>12</i> , <i>16</i> delay 36: <i>18</i>
127:9
Delighted
174:22 175: <i>1</i>
deliver 15:10
115:13
delivered 125:22
delivering 80:8
delivery 96:5
119:5 206:1
delta 8:8
demand 28:13
102:15 123:11
163:22
demands 117: <i>19</i>

demographics
16:3
demonstrate
110:6
denied 118:3
119: <i>11</i> 124:22
Department 2:5
6: <i>15</i> 19: <i>7</i> 66: <i>10</i> , <i>14</i> 101: <i>8</i>
160:6 213: <i>15</i>
215:6 220:4
departments
115: <i>12</i> 214:22
depend 135:20
208: <i>14</i>
Dependent 81:3
depending 166:8
deportation
35:16 125:20
depth 170: <i>3</i>
deregulation
30:16
deregulatory
32:7
derived 19:4
describe 104:2
209:4
described
115: <i>19</i>
describes 92:5
desert 112:2 deserve 118:2
120:5, 6 130:2,
5, 6 136:22
137:6
design 58:6
63: <i>13</i> 161: <i>12</i>
designated 49:9
designating
108: <i>1</i>

designed 28:8
145:21 193:12
designing 24:18
desired 182:4
desperately
130:4
Despite 7:14
112:14 134:21
143:8 209:17, 18
detail 16: <i>14</i>
153:8 169: <i>1</i>
171: <i>14</i> , <i>17</i>
172:5 200:6
detailed 143: <i>16</i>
156: <i>14</i>
details 168:17
190:10 197:13
198:7
deteriorating
91:20
determination
159:3
determine 6:22
9:21 58:17
107:5 159: <i>1</i>
178:6 207:14
determines
149:12
detriment 61:9
detrimental
95:15
devastating
52:12, 13 53:8
54:13 102:9
132:17
develop 62: <i>14</i>
106: <i>11</i> 107: <i>7</i>
195:2
developed
106:20 114:15

1 1 1 10 5	1.00 1. 2.5	10 1010/0	
developing 18:7	difficult 24:7	disabilities	disorientation
103:22	74:6 75:10	13:22 14:8	68:1 209:16, 22
development	88:6 91:19	disability 47:6	214:21
16:7 36:19	92:2, 11 132:3	68: <i>13</i> 112: <i>1</i>	disoriented
88:22	145:4 146:7, 15,	114:1	67:12 210:5
developments	16 149:9 153:3	disadvantaged	disparities
128:9	157:12 183:22	97:10	94:19 95:8
develops 193: <i>11</i>	184: <i>1</i> 197: <i>4</i>	disaggregated	display 164:2
devices 163:12	difficulties	16:3	displayed 11:10
diabetes 69:3	23:16 27:10	disagree 172:9	81:14
88:15	81:10 153:9	disagreement	disproportionate
diagnosing	dignity 16: <i>11</i>	190:18	28:5 127:4
87:16	28:1 120:5	disagrees 148:16	disproportionatel
DIAGNOSTICS	123:19 131:2	disallowed	y 13:1 20:13
3:21 72:8 77:11	133:7 137:1	112:13	40:2 95:22
dialed 26:21	dilate 88:8	discarded	101:21 132:12
27:10 111:14	diligence 177: <i>14</i>	112:12	disruption 42:8
dichotomy 133:9	diploma 106: <i>1</i>	discipline 134:15	148:12
die 67:20	direct 9:7	disciplines 18:10	disruptions
101:12 102:2	74:16 84:9	discomfort	39:15 146:15
133:4 206:15	96:5 133: <i>1</i>	113:18 132:22	distances 24:6
died 66:10, 17	144:13	discrete 209:8	distribute
67: <i>19</i> 119: <i>1</i>	direction 13:10	discuss 38:22	115:14
124:6 125:2	192:18	39:5 72:17	distributing
129:9	directly 113:10	74:15	175:19, 20
difference 72:21	117:14 162:11	discussed 22:14	ditch 66:9
108:21	Director 18:4	59:16 73:15	dive 63:9
differences	51:9, 17 94:20	147:4 161:4	divergent 43:13
145:4 153:2	98:21 123:6	164:18 171:9	diverse 29:12
156:3	131: <i>17</i>	180:8	95:1
different 14:19	Directorate	discussing 90:14	Division 106: <i>17</i>
26:19 57:9	23:10 25:2	discussion 60:6	141:19
64:18 73:11	62:9 93:11	63:1 90:16	dizziness 34:16
75:4 78:9	97:19 103:3	203:13	110:2 213:4
121:21 145:14	110:15 116:8	disease 69:3	dizzy 100:3
154:18 158:21	120:18 137:11	87:16 88:15	125:5
166:2 170:15,	150:8 152:16	89:1 95:14	doable 196: <i>18</i>
<i>16</i> 184: <i>1</i>	164: <i>11</i> 168: <i>7</i>	108:7	docket 8:3, 6
198:18 219:7	179:20 187: <i>14</i>	diseases 69:2, 6	11:5
differs 74:8	189:9 214:6	dismayed 193:16	doctrine 31:6
	215:10		

document
200:15
documentation
130:17
documented
18: <i>18</i> , <i>21</i> 91:9,
16 109:16
124:15 216:13
documenting
109:4
documents 7:10
8:5, 12 109:5
197:10
doing 11:3
60:9 86:7, 18
100:8 155:3, 11
191:12 196:19
210: <i>13</i> 211: <i>1</i>
dol.gov 8:9
Dolce 4:14
117:3, 5, 8, 10,
12 120:16, 20
121:5, 13, 19
122:19
dollars 28:18
dominate 175:6
DONALDSON
2:3 6:2, 14
12:2 16:15
17:1, 7, 11, 19,
22 18:2 22:8
26:3, 9, 13 27:3,
5, 7, 11 32:15,
21 33:4, 8, 18
36:22 37:6, 12,
15, 22 38:3, 6,
10 42:16, 22
43:5 44:22
45:3 44.22
22 51:3, 11
56:2, 7, 12, 15,
JU.2, /, 12, 1J,

22 62:3 63:22
64:5, 10, 14
71:8, <i>13</i> , <i>19</i>
72:1, 10 76:19
77:5, 13, 17, 21
78: <i>3</i> , <i>14</i> 79: <i>1</i> ,
11 82:2 90:2, 7
93:8, 18 94:3, 7,
<i>15</i> 97: <i>16</i> 98: <i>1</i> ,
6, 10, 15, 18
102:22 103:7,
12 105:7, 10, 19
110:12, 20
111:4, 8 116:5,
<i>14</i> , <i>19</i> , <i>22</i> 117:8
120:15 121:1, 7
122:15, 18
127:15, 19
131:13 133:20
134:3 137:7
139:20 140:4, 8,
16, 20 141:1, 3, 12 150:3
160: <i>12</i> 173: <i>17</i>
174:5, 11, 18
174.3, 11, 16 179:17 202:15
203:2, 6 204:16,
20 214:3
217:13 218:8,
13, 18, 20, 22
219: <i>13</i>
dose 195:6
double 41:8
doubling 101:10
doubt 188:14,
<i>16</i> 189: <i>3</i> 200: <i>22</i>
dozens 198:20
Dr 3:14 4:2, 3,
4, 6, 10 5:5
45:8 50: <i>13</i>
51:4 82:1, 3, 6,

13, 14, 16, 18 83:4 86:17 90:5, 9 91:15 93:12, 16 94:13, 17 97:21 98:8, 10, 16 105:16, *21* 110:*17* 111:3 205:13 214:3, 7, 8, 19 215:12, 20 217:6, 19 218:11, 14, 16 **draft** 87:13 108:19, 22 109:5, 16 drainage 66:9 dramatic 124:7, 8 draw 63:2 **drilling** 47:11 **drink** 68:10 **drinking** 14:17 74:7 100:11 112:12 129:4 **drinks** 147:11 **drive** 114:2 **driven** 113:7 123:8 **drivers** 47:19 96:5 **drives** 113:*13* **driving** 127:*1* **due** 13:6 15:5 40:6, 22 42:8 60:12 61:12 93:2 96:15 109:15 110:3 129:11 133:11 135:6 161:8 206:15 208:18

duly 218:5 **duration** 107:10 **duties** 21:10 109:*14* **duty** 85:15 **dying** 127:3 < E > **eager** 110:6 **earlier** 51:16 53:3 70:4, 7 92:16 107:17 162:12 172:20 193:6 early 129:2 206:9 earn 100:16 101:16 115:18 **earners** 13:1 102:6 **earning** 53:20 **Earth** 67:18 easily 29:10 194:15 210:17 **eastern** 53:17 79:6, 15 220:16 easy 63:14 181:16 199:8 203:16 **ECONOMIC** 3:11 13:8 18:*17* 36:*1* 38:9, 14, 16, 22 39:1, 6 42:21 51:22 58:20 60:4, 13 69:15 102:14 113:22 115:19 126:14 171:5 199:21 economically

31:6

economy 28:22	either 50:2	emotional 133:3	35:2 39:17, 18,
39:22 41:4, 6	75:20 150:16	emotions 132:20	21 40:18, 21
42:7 47:20	158:11 172:17	emphasis 14:21	42:6 44:11, 14
48:1, 6 86:10	180:6 202:15	emphasize	46:15 48:11
132:8 136:2 <i>1</i>	205:4 212:12	21:16 41:11	50:5 54:21
educated 207:11	elaborate	60:6	55:17 57:21
educates 82:12	138:16 171:19	employed 20: <i>14</i>	58:8 59:18
educating 48:11	elder 111:22	employee 15: <i>14</i>	62:15 69:15
65:10	elderly 69:8	73:15 107:12,	70:14, 22 86:9
education 29:10	ELDERS 4:11	13 108:4	87:8 89:7
68:18, 22 76:16	112:3 113:14	109:15 136:6	106:6, 21 107:4
87:7 106:3	116: <i>11</i>	144:21, 22	114:3 133:16
108:5 115:11	electrical 142:21	147:6 148:4, 8	139:2 151:11
147:5	electrolyte	177:15 191:20	158:22 161:12
educator 90:12	147:11	192:20 209:19	180:18 183:11
effect 49:19	electronics	employees 13:4	189: <i>17</i> 191: <i>19</i>
84:11 106:19	142:18, 20	14:1 20:9, 12	201:13 207:2, 5,
166: <i>1</i> 175: <i>15</i>	element 76:13	21:3 54:3	7
177:13	elements 151: <i>16</i>	55:19 58:13	employer's
effective 21:22	183:3	72:21 87:11	161:19
44:17 58:10, 22	elevate 123:15	107:5, 21 108:5,	employment
59:19 61:6, 18	elevated 216:8	10 109:18	92:3 107:8, 9
89:4 101:14	elevating 19:12	133:11 143:13	110:8 121:12
114:11 118:13	eliminate 177:20	144:15 145:1	EMS 216:10
138:14 160:22	eliminates	147:2, 10, 22	enact 86:5 87:8
effectively 15:1	176: <i>17</i>	150: <i>1</i> 154:7, 21	enacting 41:12
29:20 177:12	Elizabeth 4:2	161: <i>17</i> 163: <i>13</i>	114:10 115:20
effectiveness	81:19 82:6 90:5	170:6 175:11	encounters
16:9 109:4	email 8:6 81:11	178:6 188:13	215:5
effects 39:14	emboldened	189:22 190:8	encourage
53:9 83:2, 3	123:7	195:5, 12 207:9	39:18 42:3
efficient 78:15	emergency 19:7	employee's 50:6	87:12 89:11, 14,
effort 30:7, 10	21:21 22:4	employer 20:19	19, 21 133:16
efforts 18:11	35:6 50:7 67:6	35:19 54:4	encouraged 55:3
57:7 72:13	87:19 101:7	58:1 112:13, 16	encourages 52:6
83:20 127:14	102:17 108:3	163:12 166:13	ends 202:17
143:14 149:4	206:2 211:2	177:14 184:9	energy 29:1
Efrain 67:2, 15,	213:14, 18	191:1 209:18	30:12
21	214:22 215:6	employers 20:8	enforceable 50.00
eight 67:16	emerging 61:3	21:18 22:1	52:22 104:2, 11,
184:9 192:22		23:4 25:6, 13	14 118:2, 12, 20

120:3, 11	106:6 125:18	equally 12:21	43:22 61:16
123:12 126:6	130:9 136:15	101:14	73:9
130:20	enter 77:10	equipment 22:1,	estimate 148:21
enforced 32:9	218: <i>1</i>	2 100:5, 12	172:1, 6 201:3
197:13	entered 8:5, 11	107:11 131:22	estimated 29:16
enforcement	218:6	143:11 153:19	35:1 41:5 48:2
15:20 126:2 <i>1</i>	ENTERPRISE	164:18, 19	91:20 92:9
143:22 183:20	3:6 27:14, 17, 18	166: <i>15</i> 186:8	101:4 119:2, 3
enforces 119: <i>15</i>	enterprises	187: <i>17</i> 188: <i>4</i>	129:15 142:13
enforcing	20:11 60:3 76:7	208:16	estimates 19:4
115:20 117:2 <i>1</i>	entire 6:22	equitable 13:16	20:21 39:7
engineered	152:5	40:10 99:8	41:8 46:7 47:2
142:8	entirely 147: <i>17</i>	132:15	60:10 148:17
engineering	entirety 97:3	equity 13:10	171:9, 21 172:9,
107:16 187:11	entities 44:9	16:8 96: <i>15</i> 99: <i>3</i>	10
England 145:10	209:5	equivalent	et 156:8
English 15:6	entitled 62:17	159: <i>13</i>	evaluate 207:7
47:5 49:9	119: <i>17</i>	ER 46:3	evaluated
124:11	environment	escaping 170: <i>14</i>	212:22 213:11
enjoy 86:12	90:18 93:2	especially 46:8	215:3
ensues 87:22	150: <i>1</i> 163:2 <i>1</i>	53:18 54:11	evaluating
ensure 7:3	167: <i>16</i>	60:3 73:13, 16	210:17
10:13 12:12	ENVIRONMEN	85:21 89:15	evaluation
13:15 16:4	TAL 5:3 12:8	92:3 113:15	212:19
20:6 21:6	13:13 14:2	115:9 124:10	evaporating
35:12 36:1	119: <i>1</i> 123:9	126:19 145:17	88:1
52:19 54:3, 5	127:6 128:2	153: <i>15</i> 155: <i>1</i>	evaporation
55:8, 17, 21	131:19 205:15,	169: <i>11</i>	84:11 88:5
62:16 73:19	<i>17</i> , 20 215:22	essential 12:20	event 19:6
80:9 86:6	environments	16:8 59:4 87:9	213:11
88:12 115:11	73:11 147:18	96:3 100:19	events 34:19
126:10 138:2, 8	211:10	110:10 115:7	96:19 113:8
144:15 148:20	envision 156:7,	120:7	125:11
149:22 151:9	9, 16	essentially 197:4	eventually 66:10
157:19 171:11,	EPA 115:8	establish 14:5	everybody
<i>17</i> 180: <i>16</i>	EPI 38:14	42:4	104:20 174:16
189:22	43:11	established 61:6	186:22
ensures 35:13	EPI's 44:7	70:9 83:18	everybody's
58:13	episode 213: <i>10</i>	Establishing	73:22
ensuring 15:18	equal 89:9, 13	16:2 39:10	everyone's 78:15
16:10 62:13			
L.			



evidence 8:17	excuse 26:14	170:19 193:22	exposure 12:19
58:9 86:1	33:11 45:5	194: <i>11</i> 198: <i>9</i>	14:11 19:19
109:3, 6 216:7,	111:16 142:19	204:5, 10 206:7	20:10 29:6
16 219:19	145:20	214:16	39:14 40:9, 12
evidence-based	excused 37:17	experienced	85:19 86:2
62:1	51:5	43:15, 16 66:6,	88:22 91:16
evolving 114:9	executive 30:15	12 67:21 68:16	92:12, 18 97:7,
exacerbate 69:5	98:21	92:15 95:9	11 99:13
146: <i>17</i>	exempt 149: <i>17</i>	96:13	102:12 107:6
exactly 158:5	exemption 14:12	experiences	108:13 109:18
199:9	exercise 15:2	46:12 59:20	114:22 119: <i>1</i>
examination	exhaustion	experiencing	129:11 178:6
210:22	34:16 85:18	19:16 113:5	206:16 207:8, 9
examine 13: <i>12</i>	110:2 124:2 <i>1</i>	120: <i>1</i> 122:8	212:2
examining 109:8	209:7, 10, 11	146: <i>14</i>	exposure/rulema
example 49:16,	210:18	Expert 89:10	king 7:10
<i>22</i> 67: <i>1</i> 121:2 <i>1</i>	exhibit 8:11	181:4 199:8	exposures 19:13
122:1 149:16	77:12, 13	expertise 18:9	90:14
171:10 180:20	exist 147:18	34:5 90:15	express 7:19
184:7 185:9, 18	existing 21:7	177: <i>4</i> 178: <i>15</i>	34:7
186:19 191:18	168:10 171:17	experts 63:18	extend 21:3
examples 25:12,	200:7, 10	106:22 172:18	extended 15:17
<i>14</i> 47: <i>3</i> 161: <i>1</i>	expand 10:8	215:14	23:19 75:21
162:5, 7 170:9	28:19 126:15	explain 163:7	91:7
180:20 184:10	expanding	explains 163:8	extensive 36:20
200:8	138:10	explanation	109:5
excavating	expect 6:12	195:7	extensively
100:12	61:7 101: <i>11</i>	explicitly 14:13	109:15
exceed 31:16	expectations	15:14, 17 36:6	extra 84:14
118:7 176:3	193: <i>14</i> 195:8	exploration	193: <i>13</i>
exceeded 161: <i>15</i>	expected 11:9	142:22 148: <i>14</i>	extreme 12:21
exceeds 31:5	70:2 81:14	explored 73:12	14:2 18:12, 21
excess 40:17	expensive	Exploring 62:18	19:3, 5, 16, 18
92:13 93:2, 6	130: <i>11</i> 146: <i>1</i>	exponentially	20:1, 15 21:5
188:18	177:3	108:17	28:3, 4 34:8
excessive 7:21	experience	exporter 48:4	35:3 39:8, 22
132:20 133:2	40:12, 18, 20	exposed 18: <i>12</i>	40:4, 15, 16
147:2	42:1 53:5	40:15 60:22	41:10 42:2, 9,
excludes 32:3	90:13 101:17	70:17 96:21	12 43:15, 20
Excluding 20:12	109:19 111:22	100:7 109:22	46:21 47:9
	128:20 134:18	205:22 206:4	52:9 53:6, 16

	1	1	1 —
57:13 58:21	fact 99:16	families 99:11	Fasteners
59:14 60:12	104:18 115:20	102:10 114:3	141:11, 20
61:2, 4 69:9, 11,		131:7 132:18	142:8, 12, 14, 16
13, 21 70:15, 18	167:2 174: <i>14</i>	136:8, 21	143:2 164:2
71:4 84:20	177:16 179:11	family 52:4	faster 143:6
88:17 91:8, 16	200:13	65:4 90:10	fastest 99:16
92:17 95:16	facto 177:16	119:18 128:7,	106:10
96:6, 8, 19 97:6	factor 149:3	<i>14</i> 129:2 <i>1</i>	fatalities 13:2
100:10 101:18	172:4, 8	134:7, 18 135:7,	34:20 41:2
102:15 106:8	factories 146:2	13 137:4	58:15 92:6
113:8 114:12	153:18 155:13	205:15 214:22	fatality 216:17
117:17, 21	159:16, 17, 18	family's 134:10	father 134:14
118:18 119:7,	162:6 166:2	141:16	fatigue 66:7
10 121:20	factors 53:13	fan 169:1, 8, 17,	67:2 <i>1</i> 133: <i>1</i>
123:14 124:7,	54:21 91:7	18	213:4
18 125:11	95:7 208:14, 15	fans 144:19	favor 45:18
131:1 132:1, 10	factory 143:8	147:12 163:11	82:21
133:13 134:18	158:9 169: <i>11</i>	168:22 169:6, 9,	fear 35:16 46:8
135:1	Fahrenheit	14, 16, 18 170:7	49:6 125:3, 20
extremely	13:19 49:17	178:2	191:2, 8
144:18 172:21	59:7 91:4, 6	far 76:9 182:22	fearmonger 30:8
187: <i>1</i>	108:18 154:6, 7	194:8 204:3	fears 15:18
	fail 209:21	Farm 66:3	feasibility 58:17,
< F >	failed 34:15	134:15	20 168:4 187:10
face 12:18 13:6	48:10 100:13	farming 134:9	feasible 58:8
15:4 20:15	fails 31:17	farms 119:4	148:3 164:20
32:4 58:2	failures 181:7	farmworker	196: <i>10</i>
106:7 114: <i>14</i>	fair 7:5, 18	67:16, 20	feature 111: <i>13</i>
117:17 136:18	21:8 204:9	124:16, 20	February 83:11
faced 14:4	217: <i>1</i>	127:11 135:15	fed 86:11
52:12	fairly 86:4	Farmworkers	Federal 6:8, 9
face-to-face	186: <i>15</i>	15:4 66:6	19:17 20:2
210:19	fairness 137:4	101:20 119:13	27:22 29:5
facilitate 15:11	143:22	132:11	34:7 36:15
facilities 46:16	fall 126:8	fastener 141:16,	39:2, 3, 6, 20
145:6, 19, 20	falling 46:17	22 142:3, 11	41:6, 21 42:4, 5
146:7 158:16	129:19	143:5 144:12,	43:12 48:19
facility 108:10	false 133:9	13 148:3, 8	52:7 55:8
145: <i>14</i> 169: <i>7</i>	familiar 72: <i>17</i>	149: <i>17</i> , <i>21</i>	57:15 65:22
facing 60:11	76:4	152:6 153:14	70:13, 19 72:13
99:5		155:20 172:16	95:3 97:12

99:9 100:16	figure 178:16	178:15	65:5, 6, 8, 13
103:22 104:1, 8,		firm 194:2	66:3 67:17, 20
22 107:2 108:8,	0	first 11:19	68:4 70:11 71:7
19, 22 120:7, 11	filed 7:11 9:5	13:18 20:7	Florida's 47:8
123:21 126:10		23:18 31:4	Floridians
127:6	final 6:22 7:1	39:5 45:14	47:14 48:20
FEDERATION	10:4 107:3	49:2 50:5	flow 208:11
3:17 56:21 57:3		58:15 65:13	fluids 73:19
feed 136:20	finalize 42:3	66:17, 19 67:6	84:14
feedback 118: <i>15</i>		68:8, 20 81:17	fluke 83:16
164: <i>14</i> 165: <i>16</i>	123:11 130:12	82:4 87:7	focus 8:14
201:14	137:4 214:2	106:15 110:6	45:11 63:11
feel 55:2 67:3	finalized 36:18	113:4 118:9, 10	143:14 148:10,
87:7 89:10	Finally 15:20	120:11 140:17	11 181:14 194:1
95:2 150:19	36:3 41:11	161: <i>14</i> 168:8	focused 31:22
152:1 158:6	48:16 148:16	187: <i>15</i> 189: <i>11</i>	45:11 94:22
182:15 190:1, 9	164: <i>1</i>	192:2 <i>1</i> 194:22	153:15
192:6 217:9	financial 18:20	212:22 214:9	focuses 27:21
feeling 112: <i>14</i>	61:9	firsthand 134:17	focusing 65:19
190:16 192:22	financially	fit 85:13	folks 23:15
feelings 132:21	39:21 52:21	five 20:12 70:3	178:11 182:6
feels 68:6	find 145:1	102:6 108: <i>1</i>	185: <i>13</i> 193: <i>6</i>
132:2 157:10	162: <i>14</i> 183:9	128:1 167:18	196: <i>17</i> 198: <i>13</i>
feet 167:17, 18,	194: <i>15</i>	fixed 146:3	200:12
20	fine 33:19 38:6	flag 75:17	follow 9:10
fellow 170:12	78:2 <i>1</i> 168: <i>17</i>	flexibility 23:22	22:21 24:12
felt 12:21	196:7	52:18 59:11	25:9 46:9 50:5
129:13 180:10	finish 48:22	103:20 149:15	80:13 108:12
198:1	174:14	161:12 183:11	136:7 138:14
fewer 20:9, 12	finished 9:3, 11	flexible 55:13	150:13, 17
fewest 136:19	174:7	104:1 151:4	151:13, 15, 22
fictional 31:19	FINTER 2:9	165:18 180:14	152:3, 10 153:6,
field 104:12	168:5, 6, 15, 21	183:10	11, 22 154:16
124:21 197:10	169:20, 22	floor 58:7 61:6	155:18 156:11,
198:11 211:2	170:4, 18 171:2	143:8 154:21	20 158:2 160:5,
fields 101:1	187:9, 13 188:7,	191:4 FLODIDA 2:12	7 164:12
134:12, 20	11 189:5	FLORIDA 3:13,	165:20 166:19,
fifteen 119:14	firefighting 206:1	19 29:12 41:18	22 169:5 170:8, 17, 19 171:3, 21
fighting 27:21		45:9, 17, 21, 22 46:2, 21 48:2, 6,	
141.11	firepower	10, 17 50:9	203:14 217:9
	l	10, 17 30.9	

	1	1	1
followed 83:4	105: <i>1</i> 119: <i>19</i>	function 88:11	generally 7:22
128: <i>11</i> 191: <i>17</i>	founded 38:15	208:12	47:2 <i>1</i> 178:4
207:15	founder 82:8	functions 96:7	181:12 182:7
following 8:7	foundries 28:16	furnaces 143: <i>11</i>	200:3
11:6 20:5 181:2	Four 107:20	further 10:5	generating
follow-up 159:5	182:22 183:2	11:7 28:21	187: <i>17</i>
food 113: <i>14</i>	184:9 201: <i>11</i>	41:18 43:21	generation
130:5 132:7	fourth 133:21	63:1, 4 77:3	141:16 142:21
135:18	Framework	114:5 122:18	generations
footsteps 128: <i>12</i>	123:17 124:17	127:8 138:13	134:7
forbid 191: <i>11</i>	frank 203:12	146:17 148:13	Genevieve 4:21
force 127:5	FREE 3:6	157: <i>11</i> 174: <i>1</i>	141:7, 9, 15
forces 54:20	27:14, 16, 18	196: <i>3</i> 197: <i>18</i>	gentlemen
207:7	52:2 169:3	198: <i>14</i> 206:8	112:2 <i>1</i>
forecasts 20:22	182:16 217:9	Furthermore	genuine 15:11
forefront 133:19	freezers 200:20	15:12 63:4	genuinely 15: <i>13</i>
foreseeable	frequency 19:18	109:12 144:19	geographic 95:8
114:7	59:6 92:21	future 83: <i>3</i>	156:6
forging 143:10	113:8 157:8, 15,	91:4 143:14	Geographically
155:4, 7, 11	17 158:12, 17	220:7	96:10 156:6, 17
form 60:4	178:3, 5 185:6,		geometrically
formats 15:8	17	<g></g>	142:11
forth 109:1	frequent 96:19	gambling 120:8	Georgia 94:20,
161:18	127:1 144:17	gap 48:18, 19	21 97:1, 3
fortunate 216:1,	215:5 216:3	54:2 61:21	getting 65:3
9	frequently	gaps 13:12	99:15 128:21
forward 11: <i>17</i>	20:14 216:13	16:8 21:7 55:14	135:2 139:17
12:17 63:3, 20	friends 129:22	Garcia 67:2, 15,	191: <i>10</i> 198: <i>14</i>
131:8 139:17	135:13	19 133:21	give 10:15
165:5 173:11	Fronteras	Garcia-Nelson	63:18 73:21
176:20 195: <i>1</i>	124:16	4:19 134:1, 4, 5	76:20 122: <i>1</i>
202:5 218:7	frontline 117: <i>15</i>	gas 101:22	165:15 178:12
foster 39:16	127:4	132:13 142:22	181:9 191:9
44:16	fruit 67:8	gather 200:13	218:18
found 40:4, 10,	fulfill 100:17	gear 21:11	Given 30:1
16 46:1, 20	full 63:14, 18	general 48:21	47:22 81:4
47:14 66:8	66:20 85:16	74:11 144:10	87:11 95:20
67:13 160:22	129:12	182:1 195:19	114:8 124:22
216: <i>11</i>	fully 63:10	196: <i>15</i>	146:12 167:14
foundation	149:4	generalization	176:15 192:5
		188:17	

gives 8:10	134:2 137:15	194:15, 18	190:5 199: <i>16</i>
161:12 166:17	140:11, 12	googled 194: <i>14</i>	200:17 202:9
giving 9:1 68:9	152:3 153:16	gosh 170:13	greater 13:6
71:6 81:5 82:5	155:2, 4, 6, 8, 13	gotcha 189: <i>18</i>	14:10 19:19
220:6	157:3 158:2	gotten 191:5	40:12 89:9, 13
GLISA 90:22	160:16 162:11	govern 7:15	102:13 207:22
91:4	164:8 165:20	29:15	greatest 19:13
Global 5:8	166:18 172:20	governance 34:5	96:13 101:17
70:1 79:15	175:14 177:9,	governed 7:15	greatly 22:4
83:9, 19 92:17	17 178:14, 21,	governing 7:8	172:11 200:11
globe 20:19	22 182:4 184:2,	government	203:21 204:13
25:5, 7	5, 18, 19 186:19,	27:19 30:7	green 30:12
Gloria 64:16	21 189:7 194:7,	57:12 122:8	75:5
78:8	12 209:17	governments	GreenLatino
go 6:11 11:4	215:8 219:2, 4	48:14	139:19
27:8 45:4	gold 30:17	grabs 177:5	GREENLATINO
49:18 51:11	golf 8:8	Grace 3:18	S 4:15 122:20
56:22 72:11	gonna 150:22	56:18, 20	123:5, 6, 15
73:5 79:5, 12,	152:12 163:19	gradual 161:5	127:7, 22 131:7,
19 82:4, 16	179:4 182:12	163:9	<i>18</i> 134:6 137:8,
86:18 94:16	185:16 194:6	gradually 66:20	22 140:6
98:15 105:19	214:9	grandfather	Greenwald 4:12
111:5, 13 122:3	Gonzalez 3:10	134:11	111: <i>16</i> , <i>17</i> , <i>19</i> ,
137:1 140:15,	4:17 33:14, 16,	grandmother	21 116:6, 10, 13
<i>17</i> 141: <i>4</i> 156:2	18, 22 34:1	215:1	117:2
160:16 176:20	37:3, 16, 18	grant 192:11	grew 131:21
185:3 189:2	122:21 127:17,	grateful 89:18	grid 142:21
195:2 198:7	18, 20	104:8	grit 134:16
202:14 214:9	Good 12:2, 5	gravest 99:4	grocery 122: <i>3</i>
220:17	16:18 31:18	Great 18:1, 3	ground 66:4
goal 83:19	33:22 38:12	23:1, 6 24:11,	groundwork
God 191: <i>11</i>	51:8, 11 59:17	19 36:22 38:8	104:9
goes 175:15	65:2 73:17	57:2 63:8 77:1	group 57:10
183:1 220:10	84:6, 10 110:7	82:3 90:22	75:15 80:17
going 6:10	111:20 117:10	91:12 94:17	81:8, 18
52:17, 19 55:20,	134: <i>4</i> 174:2 <i>1</i>	105:5 134:10	groups 14:6
21 69:22 73:22	179: <i>3</i> 190: <i>14</i>	138:11, 19	35:12 36:5
75:11 78:8	196:21, 22	139:5 160:4, 11	105:4 180:9
82:4 86:20	198:5 202:21	162:2 <i>1</i> 170:4	214:11 216:22
87:16 117:11	Google 139:8	174: <i>16</i> 176: <i>4</i>	grove 67:8
122:9 125:4		179:10 180:2	grow 120:10

growing 60:18
99: <i>16</i> 123: <i>14</i>
206:3
Growth 40:10
guaranteed 59:5
guarantees
57:16
guardrails 195:9
guess 157:16
162:2 163:16,
17 187:20 188:2
Guidance 16:19
22:11 23:10
25:2 32:19
37:3 42:19
61:20 62:9
64:3 93:11
97:20 103:4
108:4 110:10,
16 115:15
116:9 120:19
126:20 137:12,
18 150:9
152:16 164:11
168:7 177:4
179:21 187:14
189:10 193:12
194:9, 13, 22
195:2, 6, 17, 22
197:10 203:15
214:6 215:10
guided 34:3
guideline 65:18
guidelines 6:13
62:15 79:2
104:11, 19
114:20 118:17
Gurnick 140:21
141:7, 9, 14, 15
150:10, 21
151:12, 20

152:3, 8, 10
153:11 154:16
156:11, 20
157:1 158:1, 19
159:9 160:4, 11
162:4 163:7, 18 164:4, 6 165:20
167:9 168: <i>13</i> ,
<i>18</i> 169:5, 2 <i>1</i>
170:2, <i>8</i> 171: <i>1</i> ,
<i>3</i> 172: <i>13</i> 173:9,
21 174:16
201:18 Gurnick-Long
4:21 150:6
174:15
guys 82:1
164: <i>17</i>
z II s
< H > habitus 108:6
half 74:3
hand 9:13, 17
26:20, 22 64:19,
21 78:10, 12
81:5 111:13, 15
219: <i>11</i> handful 76:2
handle 78:19
handouts 30:9
hands 128:10
happen 58:15
209:13 216:14
happens 159:8
160:3 212:21 happy 16:13
22:21 23:6
24:12 25:9
42:14 49:12
63:9, 16 76:15

138:16 139:10

	-
179:15 196:2	
199:18	
hard 10:17	
121:20 134:17	
136:20 137:4	
155:7 158:4	
162:14 185:19	
188: <i>16</i> 191:7	
197: <i>14</i> 198:22	
204:7	
hardening 85:4	
harder 183:21	
198:16	
harm 28:2	
31:18 113:22	
harms 39:1	
40:8 97:2	
100:20 102:13	
harvesting 130:4	
hazard 18:15	
107:5 109:3	
hazardous 212:2	
hazards 15:3	
20:11 21:6	
55:3 58:19	
96:9, 22 107:9	
157:5 184:20	
207:12	
HB 48:14	
head 10:18	
164:8 181:5	
204:8	
headache 213:3	
heading 192:18	
heads 177:10	
HEALTH 1:5	
6:5 12:14 13:7	
14:10 16:11	
18:4, 19 19:2	
21:5, 8 28:7	
31:13, 14 35:4,	

5 36:1 40:14, 17 46:16 51:21 52:13 53:2, 11 54:4, 6 55:3 60:19 61:10 62:18 63:5 65:10 66:14 69:13 82:10, 13 83:3 85:17 86:6, 13 89:10 94:18, 22 95:16 96:5, 22 97:8 99:1, 2, 3, 4, 7 100:15 101:17 102:7, 11, 13, 14, 19 104:19, 21 105:4 106:2, 4, 22 113:10, 14, 20 114:2, 5 115:4, 12, 22 119:18, 20 123:19 124:14 126:12, 17, 18 128:16 132:4, 7 213:13 healthcare 19:4, 5, 10 98:22 130:18 healthful 117:20 **healthier** 116:*1* **HEALTHY** 4:7 32:3 86:9 98:14, 21 110:4 113:21 133:15 136:7 195:6 hear 17:18, 19 37:21 79:4 82:1 127:17, 19 134:*3* 175:*1* 193:16

heard 23:15	16, 17, 18 20:1,	
33:19 59:20	2, 7, 15, 17, 21	
103:19 151:2	21:2, 5, 14, 15	
157:13 180:9	23:20 25:8	
203:15 208:21	28:9 29:5	
214:11 215:11,	30:13, 19 31:3,	
13	21 34:8, 10, 11,	
HEARING 1:9	12, 15, 17, 21	
6:3, 4, 16, 17, 20	35:3, 5, 19	9
7:3, 6, 7, 8, 9, 12,	36:15 38:20	
14, 16, 22 8:16,	39:1, 2, 3, 6, 9,	
19 9:20 10:7	14, 20, 22 40:4,	
11:5, 6, 11	9, 12, 15, 16	
22:22 23:14	41:1, 6, 10, 12,	
38:7 41: <i>15</i>	16, 21, 22 42:2,	
59:12, 16 79:17,	4, 5, 9, 10, 12	
20 80:7 94:2, 4	43:15, 20, 22	
140:3, 5 151:3,	44:3, 9 45:14	
14 153:12	46:13, 21 47:3,	
154: <i>1</i> 158: <i>13</i>	9 52:7, 9, 22	2
170:9 173:12	53:6, 11, 12, 16,	
180:21 193:7	21 54:10 55:7,	
201:21 205:7	18 57:5, 6, 8, 11,	
215:15 217:22	13, 15 58:8, 21	2
220:1, 9, 11, 14,	59:7, 14 60:12	
18	61:3 63:3	8
hearings 7:16	65:11, 15, 21	
86:21	66:7, 12, 18, 21	
heart 69:2, 5	67:5, 22 68:1, 2,	_
84:20, 22 85:5	5, 12, 16, 18, 21,	1
88:21 134:16	22 69:1, 9, 11,	
208:12	13, 17, 21 70:4,	
heartbeat 84:21	6, 9, 12, 15, 17,	_
heartbreaking	<i>18</i> 71:5 72: <i>13</i>	_
124:18	73:16 79:17	_
HEAT 1:10	83:15, 22 84:6,	4
6:6 12:15, 18,	9, 20 85:18, 20	
21 13:19 14:2,	86:1, 2, 15 87:2,	
11 15:3 16:1, 2	4, 8, 18, 19, 20	
18:12, 16, 21	88:22 89:9, 12,	
19:3, 5, 6, 13, 15,	13, 17 91:7, 8,	

10, 16 92:4, 5, 13, 15, 20, 22 93:2 95:3, 16, *17, 19* 96:6, *14*, 19 97:4, 6, 10, 13 99:9, 13 100:8, 10 101:6, *14, 18, 19* 102:*3*, 9 103:20 104:3 106:5, 8, 9, 18 107:6, 7, 22 108:13 109:10, 18, 22 110:2, 5 112:6, 11, 20, 21 113:5, 8, 15, 16, *17* 114:7, *10*, *12*, *17* 115:2, 2*1* 117:17, 21 118:2, 8, 13, 19, 21 119:1, 7, 10 120:1, 3, 7, 11 122:1 123:12, *14*, *21* 124:*7*, *18*, 21 125:5, 6, 11, *15*, *22* 127:2, *6*, 8 128:*15* 129:*1*, *11, 15* 130:8 131:1 132:1, 10, *15*, *17*, *20* 133:2, 5, *13*, *17* 134:*18* 135:1 136:12, *16* 143:4, 8, *11*, *12, 19* 144:*11, 16*, *22* 145:2, *3*, *15*, *17* 146:*16*, 2*1* 147:2 148:18 149:12 151:*16* 153:*14* 154:5, 8, 18 155:*1*, *11* 156:*19* 157:*4*

158:*15* 159:*4*, *7* 160:2, 17, 21 161:*13* 165:6 168:9 175:*16* 176:5, 9 177:14 178:7 179:8 181:18 183:3 184:*19* 187:*16*, *22* 191:8 195:*1* 196:9 200:9 205:22 206:7, 9, 12, 16 207:2, 8, 9, 21 208:15, 18 209:7, 8, 9, 11, *12*, *15*, *16* 210:2, *6*, *10*, *18* 211:*3* 212:1, 19, 21 213:13, 18, 20 214:1, 13, 17 heat-adjacent 19:9 heat-affected 99:17 heat-exposed 123:22 heating 83:9 84:3, 4 149:18 heat-related 13:2 18:*14* 19:*9* 20:*11* 29:7, 9 36:2 39:11, 19 40:13, 20 45:21 46:2 48:8, 12 53:12 58:11, 15 59:6 60:18 61:13 73:8 76:10, 18 86:22 88:18 89:8 90:20 95:9 97:2, 11 99:*17*, *20* 101:8

102:7 106:13,	185:15 187:5	176:21 178:2	14 22:10 26:5,
<i>14</i> 107:9 109:9	195:21 202:2	highlights 8:15	12 32:20 33:7
114:2 119:3	helping 44:11	highly 31:22	37:4, 8, 14
124:8 126: <i>14</i> ,	helpline 52:2	46:21 47:9	44:20 45:2
15 129:10	helps 39:14	142:8 146:8	50:14 51:2, 13
130:19 135:6, 9,	84:11 153:21	162:13, 18	56:14 64:2, 13
21 143:7, 15	194:15 202:1	163: <i>1</i> 182:2	71:5, 11, 22
144:12 149:20	Hendricks 66:3	198: <i>11</i>	72:12 77:4, 7,
159:2 207:17,	hey 190:15	high-risk 53:5	10, 16 78:1, 12
19 208:1 209:3	215:9	highway 24:5	79:10 93:10, 21
211:13 212:2,	Hi 17:18 23:9	142:6	94:6 97:18
16 215:16	25:1 43:9	highways 135:19	98:3, 9 103:2, 9,
216:4, 19, 21	56:20 62:8	HIIPPs 39:17	14 105:6, 9
heat-treating	72:7 82:4 90:9	44:10, 11, 17	110: <i>14</i> 111: <i>1</i> , <i>7</i>
143:10	94:13, 17	H-I-P-P 209:19	116:7, <i>16</i> , <i>21</i>
heatwaves 92:1,	103:16, 17	hire 162:22	120:17 121:3
2	105:16 117:10	199:8	122:13, 17
heavily 112:8	123:3 152:15	hired 148:7	137:10 139:22
heavy 28:15	160:19 164:10	hiring 148: <i>11</i>	140:7 150:7
47:15 100:12	171:7 189:9	historical 83:15	160: <i>14</i> 173: <i>15</i> ,
142:19	200:1 215:12, 13	historically	20 174:10
he'd 66:18	high 13:21	15:22 91:12	179:19 202:7,
held 40:2	19:13 20:10	95:12	14 203:1, 10
Hello 33:16	21:2 32:2	history 118:11	204:15, 19
45:8 82:1	47:16 58:8	120:12 144:12	214:5 217:11,
111:19 127:17	68:5 83:9 86:1,	149:20 206:11	16 218:12, 21
141:9 168:6, 13	2 89:11 97:2	hit 87:17	219:12
187:13 205:13	100:8 101:21	hold 7:20	honored 95:2
help 33:20	132:12 136:5	32:16 142:3	honoring 137:3
39:9, 10, 16	161: <i>13</i> 163:22	159:19 162:8	hooked 169: <i>19</i>
44:16 54:2	196:9	163:19	hope 13:14
62:15 70:16	higher 40:13	home 52:20	17: <i>12</i> 153:2 <i>1</i>
99:11 115:13	95:12 153:17	103:21 125:5	166: <i>17</i>
154:15 167:5	206:4 212:6	135:7 137:2	hopes 144:9
183:7 193: <i>13</i>	213:12	148:10 208:8	horrific 119:7
195:8 197: <i>11</i>	highest 46:3	homes 128:8	hospital 19:8
215:3	136:18	130:3 135:18	159:19 213:14
helped 128:10	highlight 13: <i>11</i>	Homestead	hospitality 110:1
helpful 38:1	144:6	67:17	hospitalizations
166:2 <i>1</i> 170:20	highlighted	Honor 12:5	46: <i>4</i> 114: <i>1</i>
		16:18 17:3, 10,	

hagnitalizad	hougekeening	hymanlinkad	168:11 173:14
hospitalized	housekeeping 11:8	hyperlinked 62:17	174:3
hospitals 46:16	housing 113:14		IFI's 148:21
hot 59:5 84:14	Houston 90:18	hypertension 53:8 69: <i>3</i>	157:6, 9 164:17
85:11 90:17	HR 160:6	hypothetical	ignored 147:19
121:14 122:4	HRI 45:21	185:18	ignoring 32:2
128:21 143:9	46:10, 12, 14	103.10	ill 110:1 112:14
144:18 155:4, 7,	48:2 50:5	<i></i>	Illinois 145:9
11 178:22	https://www.osha	i.e 32:3	ILLNESS 1:10
192:22 211:9	.gov/heat 7:9	ice 68:11	6:6 12:16 16:2
hotter 68:6	hub 57:6	200:19, 20	18:14, 17 19:9
83: <i>16</i> 91:2 <i>1</i>	huge 72:20	icon 80:2	20:7 34:10, 16,
99:16 100:22	159:17 170:11	idea 72:18	18, 21 35:6
128:21 155:22	177:21	73:12 74:19	38:20 44:9
208:10	human 35:3	178:11 207:6	45:15, 21 46:2
hottest 41:19	83:3 88:3	ideally 209:20	48:8, 12 52:8
43:19 45:17	100:6 113:7	ideas 18:8	55:7 58:11
67:18 68:3	120:8	139:10 204:13	59:6 65:11, 15,
83:10, 11, 12	humanity 133:7	identified 107:7	21 66:12 67:22
118:6 124:19	humid 87:2	212:5	68:16, 19, 21, 22
169:6 206:7, 10	88:3 90:17	identify 9:13	70:6 79:17
hour 166:11	humidity 68:5	10:21 36:5	86:22 87:8
hourly 49:14	87:18 91:8	214:18, 20	88:18 89:8, 12
122:10	145:13	identifying	95:3, 9, 18
hours 34:22	hundred 57:8	184:19 214:13	97:11 99:14
40:7 66:19	69:18	IFI 141:20	101:6, 8 106:19
85:15 107:17	hundreds 29:17	142:2, 15	107:7, 22 112:6
109:2 <i>1</i> 110: <i>3</i>	hurt 101:12	143:14, 15	113:17 114:17
112:17 122:5	191: <i>11</i>	144:2, 8, 10, 16	120:2 124:9
125:6 128:14	HVAC 14:16	145:5 146: <i>14</i> ,	133:12 135:6,
148:19 164:16	112:19	18 147:13	10, 21 143:19
166:11 171:11,	hydrated 87:22	148:16 149:4	146:21 151:16
<i>16</i> , <i>19</i> 173:5	hydrating 85:20	152:18, 21	160:17, 21
184:10 185:8	hydration 72:19	153:4, 9 154:4,	183:4 207:3
192:22 196: <i>13</i>	73:3, 13, 20	11 156:7, 9, 16	211:14 212:21
House 31:1	74:9, 16 75:3, 9	157:21 158:1,	214:13, 17
178:22 189:2	76:5 88:11	12, 14, 22	216:19
household 47:6	93:5 144:17	159:15 162:8	illnesses 13:2
households	213:6	163:20 164:12,	36:2 39:11
92:10	hygienist 25:16	13 167:11, 22	40:21 41:2
			60:18 61:14

68:2 70:20	60:13 88:20	impose 28:18	including 12:22
90:20 95:15	95:22 102:9, 11	29:12	18:18 19:13
99:18 126:14	106:4 132:1, 17	impossible	20:8 21:4
129:16 130:19	impairment	146:2, 7 149:9	28:12, 22 29:16
149:20 207:19	88:15	impracticable	30:5, 15 35:21
209:4 212:16	imperative	161:7	49:5 52:1
215:16 216:4, 22	43:12 54:16	impression	65:10 91:18
illustrate 65:20	84:13	212:18	100:2 107:16
imagining 31:19	implement	improve 22:18	108:13 110:9
immediate	39:17 41:13	38:17 52:19	126:1, 6, 16
21:20 114:11	44:3 58:8, 18	105:1	136:14 137:20
124:14 153:12,	59:18 89:20	improved 49:1	144:17 145:13
13 170:10	108:2 118:20	213:5	148: <i>13</i> 161: <i>16</i>
213:7, 14, 19	120:12 133:17	improvements	208:14
immediately	145:5 153:4	183:2	inclusion 107:3
162:15 201:20	implementation	improving 18:7	income 47:4
213:11	14:20 22:6	94:22 208:10, 11	53:19 69:15
immigrant	61:18 109:10	inaction 60:21	inconsistent 58:2
45:12 128:6	implemented	inadequate 30:1	incorporate
immigrants	65:17	incidence	62:11 200:9
13:5 46:11	implementing	108:17 212:16	incorrect 154:10
49:6 124:11	38:22 39:3, 20	incidences 99:21	increase 21:14
immigration	41:21 42:9	incident 181: <i>19</i>	42:12 61:12
36: <i>3</i> 119: <i>16</i>	61:22 130:8	incidents 109: <i>11</i>	83:19, 21 85:3
126:12 130:19	implements	113:2	87:3 92:21
immune 85:8	161: <i>13</i>	include 36:6	96: <i>18</i> 169: <i>14</i>
impact 39:22	implications	53:6 54:8, 19	increased 18:19
53:1, 9 73:7	96:15	55:18 108:8	19:4 24:1
74:16 76:17	importance	114:18 125:16	40:18 84:10
113:22	22:14 39:2	139:5 147:5	88:16 91:3
impacted 53:5	41:11 54:17	165:6 175:22	95:15 163:12,
101:19 119:6	137:20 138:2 <i>1</i>	195:6, 15 206:21	13 211:13, 16
123:16 132:10	important 22:2	included 19: <i>16</i>	increases 86:2
impacting 45:22	44:2 49:2 73:4	161:6 176:8	96:13 101:7
102:14 113:10	76:13 97:8	207:2 209:2	108:17 132:15
impacts 12:21	108:8, 14 115:3	includes 35:5	increasing
18: <i>17</i> 19: <i>3</i>	207:18 209:1	42:7 54:17	12:18 19:18
20:13 35:5	210:9 218:3	104:10 108:5	59:6 61:8 75:6
40:1, 4 41:3	220:12	123: <i>19</i> 149: <i>14</i>	92:21 99:18
47:7 48:5	importantly	196:9	102:13 106:8
52:13 58:7	90:15 108:4		

113:7 133:9
149:10 208:11
increasingly
34:12 97:8
213:20
incredibly 146: <i>3</i>
incremental
28:19
independent
18:6 175:3
177:22 199:4
index 13:19
31:21 59:7
66:7 68:6 89:9,
<i>13</i> 91:7 154:5,
8 158:15
Indiana 145:8
indicate 26:20
64:19 78:10
81:6 111:13
219:9
indicated 26:10
93:5
indicates 88:21 indicators 84:21
213: <i>12</i>
indigenous
22:16 35:21
95:22 96:1
126:2 136:14
individual 72:19
74:9 76:1
107:19 108:6
149:16 155:19
158:6
individually
80:3
individuals
13:22 53:10
57:7 73:5, 13,

14 74:16 75:18
94:5 148:11
INDOOR 1:11
6:7 14:12
19: <i>14</i> 34:9
35:8 36:14
38:21 49:11, 13,
22 51:15 54:12
65:16 70:17
79: <i>18</i> 95: <i>4</i>
99:19 123:13
143:12, 20
144:11 146:1,
16 149:12
156: <i>18</i> 168:9
206:22
induced 69:17
industrial 25:16
74: <i>4</i> 106: <i>18</i>
131:2 <i>1</i> 141: <i>11</i> ,
20 145:11
industries 20:10
35:8 43: <i>13</i>
47: <i>17</i> 97:2
99:19 104:15
124:12 129:18
134:8 135:19
143:15 145:9
149:17, 21 197:2
industry 16:3
31:15 57:18
58:18 61:19
103: <i>19</i> 106: <i>21</i>
143:6 144: <i>12</i>
146:2 148: <i>3</i> , <i>1</i> 2,
22 149:16, 20
152:6 153: <i>15</i>
155:20 158:8
161:8 163: <i>3</i>
165: <i>3</i> , <i>21</i>
169: <i>15</i> 170: <i>11</i> ,

<i>16</i> 172:2, <i>16</i> , <i>21</i>
173:6 175:6
176: <i>6</i> 196: <i>10</i> ,
11 198:15
inequities 13:7
infants 53:9
infections 85:9
inflammation
85:2
Inflation 30:9
113: <i>13</i>
inform 156:10
INFORMAL
1:9 6:4 7:14
79:16
information
6:19, 21 7:7
10:10 15:5
108:9 136:4
138: <i>1</i> , <i>7</i> , <i>13</i>
158: <i>17</i> 166: <i>21</i>
167:5 168: <i>16</i>
186: <i>14</i> 187: <i>4</i>
193:14 195:14
197:19 200:11,
21 201:5
202:20 205:1
informed 16:4
19:14 123:18
infrastructure
128:9 142:7, 22
inherent 153:20
initial 13:19
23:20 54:10
90:21 92:9
110:7 210:2
initially 90:18
injured 112:20
206:15
injuries 29:8, 9
39:11 40:7, 13,

20 41:1 59:19
61: <i>13</i> 73:8
76:10 90:15
99:13, 18 114:2
119:3 126:16
129:16 143:7,
<i>15</i> 181: <i>3</i>
207:17, 19
213:21 215:16
INJURY 1:10
6:6 12:16 20:7
34:10, 16, 18, 21
38:20 52:8
65:15, 21 79:17
87:4, 9 89:1
95:3, 9, 18
101:6 102:9
112:6 113:15
114:17 132:16,
17 133:12
135:9 143:19
151:16 159:1, 5,
10, 12 177:15,
16 181:18
183:4 207:2
injustice 127:7
innovate 44:11
innovation
39:16 42:13
44:10, 14, 16
innovative 39:18
input 36:20
44:15, 19 49:5
55:1 107:13
144:1 203:22
inquire 98:6
inside 75:12
inspections
15:22
inspectors 29:19

inspired 166:22	138:6, 22	investigation
170:18	158:13, 18	66:13
Installing 145:22	165: <i>13</i> 180:2 <i>1</i>	invite 31:10
instance 62: <i>14</i>	186:7, 13 201:5	137:22
156:8 159:2	interests 27:19	involved 65:
NSTITUTE	30:9	216:6
3: <i>11</i> , <i>13</i> 18: <i>6</i>	interfere 89:5	involving 85
38:9, <i>14</i> 42:2 <i>1</i>	INTERFERENC	Iowa 41:20
45:9 141: <i>11</i> , 20	E 172:12	Irene 4:16
institute's 50:9	interferes 88:5	122:21 123:
nstruction	intermittent	Irina 123:4
30:22	92:1	irritability
nstructions	intern 216: <i>1</i>	132:22
80:13	internal 155:15	isolate 187: <i>1</i>
nsufficient	181:4	isolated 113:
14:2 <i>1</i>	internet's 134:2	issue 18: <i>10</i>
nsulate 28:9	interpret 154: <i>11</i>	45:16 46:1,
32:1	interpreted	16 48:16 52
nsurance 60:22	193:15	90:20 131:2
61: <i>10</i> , <i>11</i>	interpreters	135: <i>16</i> , <i>17</i>
nsured 60: <i>16</i> ,	49:9	149:14 162:
17	interrupt 170: <i>1</i>	166: <i>3</i> 169: <i>1</i> 1
ntegrated 59:1	interrupted	197:1 216:3
50: <i>14</i> 91: <i>1</i>	157:3	issued 19:22
ntend 9:10	intervention	32:12
ntended 76:20	213:16	issues 38:4
intends 193: <i>15</i>	interventions	45:12 69:12
ntense 96: <i>19</i>	16:5 93:4 99:10	75:22 76:11
113:5	intimate 133: <i>3</i>	90:13 100:6
ntensive 166: <i>10</i>	introduce 11:12	144:13, 16, 2
intent 9:5	introduced	180:13 201:
intention 7:12	76:11	it'd 214: <i>19</i>
intentionally	introducing	item 201:10
28:8	81:15	it'll 166: <i>12</i>
interagency	introduction	169: <i>14</i>
138:8	86:19	its 14:9 22:
nterest 26:10	intrusive 29:5,	36:18 65:11
86:7, 8, 10, 12	11	83:10 84:21
176:4 220:12	investigated	117:19 143:
interested 6:18	212:3	144:8 145: <i>1</i> .
7:5 24:8 25:14		

investigation	16 195:6	
66:13	_ I \	
invite 31:10 137:22	<j> include: 170.15</j>	
involved 65:9	jackets 170: <i>15</i> janitors 100: <i>9</i>	
216:6	January 57:10	
involving 85:22	66:1 83:10	
Iowa 41:20	143:16	
Irene 4:16	JENNIFER	
122:2 <i>1</i> 123:4	2:17 17:3 26:5	
Irina 123:4	33:1 37:8 43:2	
irritability	50:18 56:9	
132:22	64:7 71:15 77:7	
isolate 187: <i>16</i>	jeopardizing	
isolated 113:2	126:12	
issue 18: <i>10</i>	Jill 3:5 17:16	
45:16 46:1, 15,	18:3	
16 48:16 52:7	Joanne 4:10	
90:20 131:2, 12	105:14, 16	
135: <i>16</i> , <i>17</i>	job 19: <i>16</i>	
149: <i>14</i> 162: <i>12</i>	21:10 30:11	
166: <i>3</i> 169: <i>10</i>	35:15, 16 58:11,	
197: <i>1</i> 216: <i>3</i>	16 59:12 66:2	
issued 19:22	67:19 73:9	
32:12	74:20 75:2	
issues 38:4	86:10 90:15	
45:12 69:12	92:7 96:7	
75:22 76:11, 18	102:3 107:5	
90:13 100:6	109:3, 14, 18	
144: <i>13</i> , <i>16</i> , 22	110:6, 7 125:8,	
180: <i>13</i> 201: <i>11</i>	20 133:5 161:9	
it'd 214: <i>19</i>	208:5, 7	
item 201:10	jobs 20:14	
it'll 166: <i>12</i>	28:20 29:3	
169: <i>14</i>	47:19 109:22	
its 14:9 22:6	119:6 124:1, 4	
36:18 65:11	133:16 136:20	
83:10 84:21	146:6 158:9	
117:19 143:14	205:22	
144:8 145: <i>15</i> ,	Joe 191:6, 8, 11	

joined 26:19	14, 19, 22 117:8	51:6, 8	74:3, 10 75:5, 8
64:18 78:8, 9	120:15 121:1, 7	keen 177:18	86:12 103:21
111:12 219:7, 14	122:15, 18	keep 7:22 66:5	104:15 112:16
joining 23:8	127:15, 19	74:6 117:11	122:7 128:18
24:22 33:5	131:13 133:20	118:1 125:7	129:12 131:3, 4,
72:10 220:11	134:3 137:7	131:6 132:8	22 132:1 138:7,
joke 160:7	139:20 140:4, 8,	133:15 134:2	8 140:11
JOO-HYUNG	16, 20 141:1, 3,	137:5 140:12	158: <i>14</i> , <i>15</i>
2:13 171:6, 7	12 150:3	170:6	161:15 162:2
199:22 200:1	160:12 173:17	keeping 135:17	163:11 164:21
Joshua 111: <i>10</i>	174:5, 11, 18	200:22	165:12 167:15
219:6	179:17 202:15	kettle 175:16	173:10 176:5,
Judge 2:3 6:2,	203:2, 6 204:16,	187:22	22 177:5, 13
15 7:2 11:19	20 214:3	key 47:19 144:6	178:14 180:12,
12:2 16:15	217:13 218:8,	Khadijah 4:6	18 181:1, 5, 10,
17:1, 7, 11, 19,	13, 18, 20, 22	94:11, 13, 17	14, 19, 21 182:5,
22 18:2 22:8	219:13	kick 23:7	9, 22 183:13
26:3, 9, 13 27:3,	Judges 2:4	161:16	185:7, 17, 22
5, 7, 11 32:15,	judgment 29:18	kidney 69:3	186:3, 5, 10, 16,
21 33:4, 8, 18	judicial 32:8	89:1 112:22	19 187:21
36:22 37:6, 12,	July 1:14 67:1,	kidneys 88:21	188:3, 14, 22
15, 22 38:3, 6,	17	kill 29:3	189:2 190:2, 15,
10 42:16, 22	Junck 4:3	killer 70:5	22 191:2, 12
43:5 44:22	81:20 82:3, 14,	kind 55:1	192:1, 13, 19, 20,
45:3 50:11, 16,	18 91:15 93:12,	134:15 136:5	22 194:4, 5, 6, 8,
22 51:3, 11	17	138:15 139:8	9 196:17, 20, 21
56:2, 7, 12, 15,	June 118:9	151:22 153:2 <i>1</i>	197:2, 4, 11
22 62:3 63:22	JUSTICE 3:2	166:17 173:3	198:2, 5, 9, 11,
64:5, 10, 14	12:1, 8, 9 13:13	179:7 182:7	15 199:6, 8, 9
71:8, 13, 19	14:3 16:11	195: <i>14</i> 196: <i>4</i>	201:17 203:4
72:1, 10 76:19	45:12 51:20	209:5	204:3, 5
77:5, 13, 17, 21	94:19 123:5, 17	kinds 74:12	knowledge
78:3, 14 79:1,	124:16, 17	100:9 216:14	55:14 61:21
11 82:2 90:2, 7	127:21 128:2	kitchens 54:12	197:13
93:8, 18 94:3, 7,	131:2, 19	101: <i>1</i> 128: <i>14</i>	known 67:20
15 97:16 98:1,	justify 30:8	knew 191:5	68:15 84:16, 21
6, 10, 15, 18		know 24:2	114:22
102:22 103:7,	< K >	46:10, 12 50:3	knows 83:6
12 105:7, 10, 19	Kaiser 119: <i>18</i>	52:17 53:4	
110:12, 20	Kameron 3:16	54:11 55:16	< L >
111:4, 8 116:5,		63:12 70:13	

Labor 2:5, 15	8 55:12 87:11	laws 57:19	48:15 51:9, 17,
6:16 19:15	126:1, 2 130:15	119:18	18 52:2 126:8
21:8 35:1	136:14	lawyer 178:8, 10	legally 31:4
47:13 60:11	large 36:13	lawyering 12:10	59:22
66:10 69:11, 17	48:4 52:22	lawyers 193:16	legislation 48:10
70:9 117:15	76:7 88:10	194:12	legislature 48:10
118:22 121:20	119:12, 21	lay 104:9	length 171:9
127:5 128:17	143:11 146:10	layer 57:19	lengthy 96:20
144:20 146:5	175:4, 5, 19	layers 58:2	lens 13:13
166:10 171:16	186:17 199:5	laying 128:7	Leovy 4:10
220:4	largely 114:7	layperson	105:14, 16, 21
laborers 12:22	larger 47:21	214:20	110:17 111:3
13:4 135:16	113:10 114:14	lead 18:8 84:12,	
Labor's 66:14	largest 188:21	15, 22 85:2	level 29:11
lack 14:15 15:6	Larry 4:3	88:19 212:1	39:4 44:2 76:1
41:5 42:5 46:9	81:20 82:18	leader 57:4	104:12 156:8
61:1 74:1, 2	86:18 87:17	99:3	208:14
87:13 95:18	88:2	leaders 123:7	levels 15:6
97:13 110:3	Las 105:22	leadership	27:22 70:3
119:20, 22	108:15	114:10	72:20 74:9
127:5 161:8	lasting 102:12	leading 18:21	75:6 99:13
lacking 36:15	113:5	70:4 86:22	126:3 145:13
39:2	lastly 44:6 55:5,	95:8 181:20	LEVIN 2:17
laid 105:2	16	leads 46:2 85:7	17:3 26:5 33:1
Lake 127:22	late 32:11	146:9	37:8 43:2
Lakes 90:22	67:10 115:6	leave 36:1 52:4	50:18 56:9
91:12	latest 46:6	74:17 104:3	64:7 71:15
landscapers	Latine 101:15,	126:16 130:18	77:7, 16 78:21
29:17	19 132:10 133:4	136:15 169:8	liabilities
landscaping	Latino 40:5	190:10 208:18	189: <i>16</i> 190: <i>7</i>
47:18 101:22	123:7, 10, 17, 20	leaving 16:12	liability 177:12
132:13	124:4, 17 125:9	85:8 100:3	191: <i>13</i>
language 13:8	127:3, 9 131:19	208:7	liberation 123:9
21:21 22:15	135:13, 16	led 19:3 52:12	life 47:7 61:10
35:18 80:4	Latinos 124:10	left 67:9 74:21	100:16 112:4
108:10 124:11	Latinx 13:5	112:12	113:19 125:9
125:21 136:13	launch 80:10, 14	left-hand 80:2	136:22 211:4
138:21 189:21	launched 80:12	leg 66:7 67:21	lifting 28:15
190:4	Law 2:3, 4	LEGAL 3:6	lightheaded
languages 15:8	6:15 51:19	27:20 34:4	100:3 190:16
35:20, 21 49:6,	121:12		liked 201:13

	1	1	1
limit 7:21	literature 63:4,	logistics 79:19	135:5 173:1, 3
39:15 83:21	16, 17 212:3	lone 210:17	210:22
84:2	216:18	long 24:6 53:6,	
limitations 75:12	little 6:11	8 82:20 102:12,	
limited 7:2	33:19, 20 166:6	18 112:9 114: <i>1</i>	122:7 153:20
13:7 15:5	171:14 181:2	125:6 128:14	165:22 173:11
20:15 27:19	193:16 197:15	173:22 194:11	175:18 178:9
47:5	198:2 215:2	201:19 206:18	181: <i>11</i> 183: <i>17</i>
limiting 83:19	live 40:11 65:5	longer 21: <i>13</i>	194:16 210:22
85:19	95:1, 11 96:10	74:10 113:5, 12	lots 73:10
limits 101:3	99:15 112:2	look 44:7	love 150:12
109:7	121:17 122:6	63:20 69:21	loved 51:21
LINDA 2:16	128:10	73:13 74:20	low 12:10 13:1
93:21 98:3	lived 134:22	109:9 139:16	20:13 31:22
103:9 111: <i>1</i>	lives 18:7	154:19 162:3	38:18 40:8, 10
116:16 121:3	70:16 76:9	173:11 177:4	53:19 60:15
139:22 173:20	115:17 120:8	182:9 193:22	69:11 84:14
203:10 217:16	126:20 129: <i>11</i>	202:5 212:14	147:21
Lindsey 3:20	130:11 131:10	looked 161:22	lower 14:5
64:22 65:2, 4	135:5 136: <i>1</i>	191: <i>4</i> 216: <i>19</i>	21:12 29:2
71:11, 17 72:2, 4	living 115:18	Looking 47:13	59:8, 9 80:2
line 21:14	lo 83:16	75:10 166:1	89:12
155:12 219:7	loads 28:15	187:21	lowest 101:16
lines 24:19	lobby 30:12	looks 78:13, 16	102:5
61:8 118:19	local 29:11	105:10 177:11	low-income 13:5
155:1	48:7, 14, 15	Lopez 67:2, 15,	Lu 91:8
linguistically	115:12 118:13	19	Lunch 79:13
14:22 130:14	localities 41:20	lose 40:5, 6	Luther 3:22
link 79:8 88:21	43:22	loses 48:2	72:5, 7, 12 77:1,
140:18	localized 118:18	208:19	11, 19, 22 78:1
linked 20:18	located 145:6	losing 42:7	lying 67:14
Lisa 82:22	location 16:4	146:11	
83:4 86:16	49:21 145:16	loss 35:16 41:3	< M >
list 26:19 61:5	158:7 159: <i>16</i>	125:20 213:10	ma'am 134: <i>1</i>
64:18 111:12	locations 24:6	losses 41:8	Machine 148:6
181:20	145: <i>12</i> 169: <i>15</i>	69:19 74:5, 6	155:3 161:9
listed 138:9	logistical 165:7,	lost 18:18	162:13, 22 166:8
listening 83:6	13	34:22 35:1	machinery 166:6
literacy 15:5, 8	logistically	60:11 102:4	machines
108:11 126:3	166:1, 4	114:4 129:10	100:12 143:10
literally 153:19			

153:18 162:17	mandates	Marcus 5:5	mean 73:22
163:3 172:22	108:21 149:6	205:10, 13	129:19 145:12
maded 144:8	mandating	Margaret 3:12	154:6 165:12
maintain 74:9	107:13, 15, 20	37:19 38:8, 13	166:20 168:13
88:12 104:21	147:15	43:10 44:21	169:22 171:18
maintained	mandatory	45:17 48:6	177:1 183:8, 16
130:3	28:13 70:18, 21	marginalized	185:22 186:16
maintaining	71:3 114:18	13:17 14:15	191:7 192:17
135:19 136:12	manner 61:15	15:22 119:10	193:1 196:22
major 18:10	63:13 137:19	margins 146: <i>3</i>	198:18 210:15
31:5 61:2	Mann-Lev 4:8	172:21	213:1
108:21 114:22	98:11, 13, 16, 17,	MARIAM 5:8	meaning 47:15
201:11	20, 21 103:1, 5,	79:14	meaningful
majority 20:11	<i>17</i> 104:5 105:5,	marked 77:12	15:13 41:9
101:18 122:7	13	market 142: <i>12</i>	46:9 125:15
132:9	manually 80:14	144:20	means 8:19
makers 18:8	manufacture	Maryland 35:7	24:17 41:17
200:19	149: <i>19</i>	material 200:10	60:17 74:22
making 49:8	manufactured	202:12	84:5 98:1
54:18 68:5	143:2	materials 15:7	106:6 107:20
101:19 129:4	manufacturer	21:16 22:15, 19	178:11 184:3
130:2 131:3	144:20 145:15	138:21 147:7	meant 7:17
136:3 166:9	155:8	203:16, 20	measure 135:22
179:2, 6 218: <i>1</i>	manufacturers	maternal 95:21	measured 188:1
man 68:20	143: <i>5</i> 144: <i>14</i>	matter 29:15	measurement
112:18, 20	145:5 148:9	113:18 131:2	20:21 62:19
manage 57:13	153:4, 14	177:13 195:19	measurements
managed 146: <i>10</i>	156:13 157:12	220:12	25:5, 8
management	manufacturing	matters 11:8	measures 15:3
54:22 62:18	29:1 54:13	219:20	49:19 50:6
63:5 100:13	141:17 143:6	Matutes 4:18	107:1 137:21
112:1 154:19	145:19, 20	122:22 131:16,	154:8
211:3	146:13 147:18	17	mechanism
mandate 15:7	149:17, 21	maximum	183:20
31:8 108:9	155:21 158:7	149:15 208:3	mechanisms
109:13 125:22	169:7 173:3	McGinley 3:8	89:5 142:18
mandated 23:17,	197:5	26:17 27:2, 4, 6,	median 175:10
18 68:18	marathon 84:17	8, 9, 12, 13	medical 35:22
109:14 118:14	Marc 5:2	32:15 33:9, 12	50:7 69:4
149:12 165:7,	174:19, 21 194:7	MD 105:17	87:19 90:11, 17
10 167:13 196:8			102:5 114:2

126: <i>16</i> 130: <i>17</i> 136: <i>15</i> 143: <i>1</i>
159:3 208:17,
<i>18</i> 211:7, 8, <i>12</i> ,
18, 19, 22 212:5,
14, 19 213:7, 16, 18 214:15, 16
215:14 216:16
medically 13:21
212:22
medication
108:7 medications
89:3, <i>4</i> 211: <i>13</i>
medicine 90:11,
16 106:1
132:19 205:15,
16 206:14 210:20 212:9
214:22 215:22
216:2, 6
medium 60:3
medium-sized 27:20
meet 84:1
125:7 172:17
meeting 165:9
meets 131:10
Meisei 4: <i>17</i> 122: <i>21</i> 127: <i>18</i> ,
$\begin{vmatrix} 122.21 & 127.10, \\ 20 & \end{vmatrix}$
member 64: <i>1</i>
65:5 94: <i>4</i> 95: <i>5</i>
141:19 142:15
144:2 146:9, <i>18</i> 158: <i>16</i> , 22
170:6 175:10
197:6 208:2 <i>1</i>
members 16:17
26:10 51:1 56:13 64:11
56:13 64:11

83:2 98:6
111:6 121:8
122:16 123:10
134:19 135:7,
<i>13</i> 140: <i>4</i> 142: <i>2</i>
144:16 145:5, 6
146:14 153:4, 9
154:11, 12
158:12 159:15
160:20 162: <i>1</i>
168:9, 11, 22
175:4, 8, 9, 18
176:8, 22 177:2,
9 178:21 179:4,
13 181:10
182:9 186: <i>1</i> , <i>16</i> ,
17, 18, 22
187: <i>15</i> 188: <i>1</i> ,
19, 21 190:18
194:18 199:11,
12 200:7, 15, 19 204:12, 17
218:10
membership
167: <i>5</i>
mental 68:1
84:16 213:9
215:3
mention 45:18
156:12
mentioned 69:2,
6, 8 70:4, 7, 11
88:2 151: <i>1</i>
152:19, 21, 22
155:1, 20
160:20 162:5
166:5 167: <i>1</i>
168:8, 22
171:10, 22
180:5, 12, 18

188:8 200:3
201:16
met 112:9
144:15
Metalworking
149:2 <i>1</i>
Meteorological
70:1
methods 25:14
187: <i>16</i>
MEXICO 4:7
66:2 98:14, 22
99:15 100:21
101:2, 4 102:19
103:2 <i>1</i> 104:6 131: <i>18</i> 132:9
MiCCA 82:9,
22 83:5 93:14
Michael 3:22
72:5, 7
MICHIGAN
4:1 81:18 82:8,
9, 11, 22 90:11
91:2 92:10
94:5 145:8
midday 67:1
129: <i>1</i>
middle 38:18
129:3
Midwest 52:11
90:19 91:11
92:14
Midwestern
92:1
migrant 12:22
125:19 126:9, 10
miles 49:21
159:18
military 142:9,
20

million 28:14
39:8 46:20
53:16 76:8
97: <i>1</i> 101: <i>5</i>
162:17 163:2
millions 12: <i>17</i>
29:16 42:11
96:20 117:22
120:4 129:8
132:6
mind 82:14, 15,
16 140:16
170:10, 14
195:12 206:13
mine 97:13
minimal 124:12
minimize 62:12
minimum 59:14,
22 120:13
mining 62:19 143:1
Minnesota 70:8
minor 49:3
minute 50:1
140:15
140:15
140: <i>15</i> minutes 6: <i>11</i>
140:15 minutes 6:11 22:3 67:13
140:15 minutes 6:11 22:3 67:13 80:17 140:17
140:15 minutes 6:11 22:3 67:13 80:17 140:17 180:19 207:16
140:15 minutes 6:11 22:3 67:13 80:17 140:17 180:19 207:16 213:6
140:15 minutes 6:11 22:3 67:13 80:17 140:17 180:19 207:16 213:6 mirror 107:1
140:15 minutes 6:11 22:3 67:13 80:17 140:17 180:19 207:16 213:6 mirror 107:1 miscarriage 53:7 misreads 31:12 missed 135:9
140:15 minutes 6:11 22:3 67:13 80:17 140:17 180:19 207:16 213:6 mirror 107:1 miscarriage 53:7 misreads 31:12 missed 135:9 missing 129:18
minutes 6:11 22:3 67:13 80:17 140:17 180:19 207:16 213:6 mirror 107:1 miscarriage 53:7 misreads 31:12 missed 135:9 missing 129:18 mission 117:19
minutes 6:11 22:3 67:13 80:17 140:17 180:19 207:16 213:6 mirror 107:1 miscarriage 53:7 misreads 31:12 missed 135:9 missing 129:18 mission 117:19 mistakes 181:20
minutes 6:11 22:3 67:13 80:17 140:17 180:19 207:16 213:6 mirror 107:1 miscarriage 53:7 misreads 31:12 missed 135:9 missing 129:18 mission 117:19 mistakes 181:20 misters 147:15
minutes 6:11 22:3 67:13 80:17 140:17 180:19 207:16 213:6 mirror 107:1 miscarriage 53:7 misreads 31:12 missed 135:9 missing 129:18 mission 117:19 mistakes 181:20 misters 147:15 mitigate 41:9
minutes 6:11 22:3 67:13 80:17 140:17 180:19 207:16 213:6 mirror 107:1 miscarriage 53:7 misreads 31:12 missed 135:9 missing 129:18 mission 117:19 mistakes 181:20 misters 147:15

mitigating	176:1	MX3 3:21 72:8	131:18 206:5
mitigating 39: <i>12</i> 107: <i>15</i>	morbidity 93:6	76:6 77:11	nationally 105:2
mixed 130:17	morning 12:2, 5	myopically	nation's 106:10
Mm-hmm	16:18, 22 33:22	31:22	nature 7:13, 14
188:10 191:17	38:12 51:8, 11	myriad 48:20	92:1 146:12
192:4 195:10	65:2 78:16, 17	myriau +0.20	151:18 164:18
196:14 201:3	79:12 134:4	< N >	166:6 183:5
mobile 126:18	192:21 220:15	NAICS 155:17	nausea 110:2
mocked 112:10,	morning's 78:5	name 6:14	213:4
16	mortality 92:5	11:14, 20 12:7	nauseated 125:5
model 103:20	93:6 95:21	17:17 18:3	nauseous 100:3
200:14	mother 134:13	26:18, 19, 22	near 70:2
modest 29:4	motors 169:19	33:14, 22 37:20	nearby 46:16
modifications	move 11:17	38:12 43:8	neared 66:7
20:5	73:18 74:13	45:7 51:7, 8	nearly 41:7
modified 109:14	81:21 86:20	56:19 64:17, 19	119:13 124:1
161:19	94:9 114:16	65:1, 4 72:6	135:8
modify 171:16	123:1 131:8	78:9 80:21	necessary 16:7
mom 128:14	165:5 189:7	81:8, 11, 20	28:6 55:8, 10
129:22	195: <i>1</i>	82:5 90:3, 9	58:19 61:18
mom-and-pop	moved 67:7	94:12, 17 98:12,	88:11 142:3
187:2	MOVEMENT	20 103:15	144:11 149:13
moment 131: <i>11</i>	4:13 117:6	105:15, 16	necessity 113:13
194:20 195:22	120:22	111:11, 12, 17	need 22:1 29:5
monitor 29:20	moves 63: <i>3</i>	117:4, 12	32:2 39:13
89:8 108:2	moving 218:7	121:10, 11	45:14 54:4
143:12 158:12	multinationals	122:22 123:3	61:21 74:18
168:9	175:5	127:20 131:17	101: <i>14</i> 104: <i>11</i>
monitoring	multiple 49:5	134:5 137:17	112:6 118:19
89:11 102:17	86: <i>3</i> 181:2 <i>1</i>	141:8, 9, 15	121:17 123:20
144:22 154:6	204:5 215:13	174:20 199:7	125:13 130:4
157:4, 9, 15, 19	multi-tiered	205:11, 13 219:7	140:12 148:19
158:18 168:11	14:7	nation 43:19	162:15 163:22
178:3 185:6, 8,	Municipal	46:2 99:17	164:22 169: <i>17</i>
<i>16</i> 186:8 210: <i>10</i>	100:4 212:14	120:5 133:6	171: <i>11</i> , <i>15</i>
monitors 107:19	Murali 3:3	National 20:18	191:20 194:12
month 100:2	11:20, 22 12:5,	34:4 51:18	203:8 208:5
122:10, 11	7 16:21 17:9,	57:20 58:5	211:22
months 16: <i>1</i>	12, 14	114:8 118:20	needed 29:20
83:10 106:15	muted 79:21	121:12 123:12	101:11 104:20
	mutual 115: <i>11</i>		114:13 147:1

165:2 167:6	NEW 4:7 14:1	non-union 21: <i>4</i>	nuts 142:2
171:16 177:6, 7,	58:13 62:16	norms 83:15	
15 180:19	66:2 69:4 83:9	North 52:11	<0>
183:13, 18	87:4 89:6, 15,	141:22 148:22	objective 177:19
184:3 190:13	19 92:7 98:14,	notable 46:1	190:12 191:16
191:2, 3, 9	22 99:15	note 43:18	observation
192:16	100:21 101:2, 4	44: <i>14</i> 61: <i>1</i>	89:14 163:13
needs 54:4	102:19 103:21	139:6 193:8	176: <i>14</i> 181:2
65:21 133:18	104:6 114:2 <i>1</i>	noted 43:17	182: <i>1</i> , 7 210: <i>1</i>
144:15 167:16	131:18 132:9	59:21 91:12	observations
190:12	145:10 147:22	121: <i>14</i> 197:9	182:15
negative 155:5	148: <i>3</i> 149: <i>14</i>	206:8 218:5	observing
neglect 49: <i>13</i>	166:8 208:1, 7	notes 18:14	161: <i>16</i> 176: <i>5</i>
neighbors	210:3	132:19 201:18,	obvious 84:12
129:22 135:13	newly 66:3	19	175: <i>14</i>
Nelson 122:22	news 66:10	Notice 6:7 7:11	obviously 45:22
133:22	night 112:15	9:5 211:11	102: <i>13</i> 193: <i>1</i>
nervous 84:19	nightmare	noticed 91: <i>14</i>	occasional
85:2, 22	28:17 29:18	notification	109:21
network 34:4	nine 106:15	80:16	OCCUPATIONA
205:19	NIOSH 21:14	November	L 1:5 5:3 6:4
neurological	nodding 10: <i>17</i>	106: <i>17</i>	18:15 28:7
86:4	non-citizen	NPRM 25:3	29:7 31:12
neurologist	216: <i>19</i>	157:8 164: <i>13</i>	66:14 88:18, 22
85:21	non-English	number 9:20	90:14 97:4
neurology 82:19	49:10	18:12 46:3	99:9 106:5, 14,
NEVADA 4:9	non-Latine	53:13 55:6	18, 21 129:11
53:17 59:17	133:5	81:11 91:13	132:4 205:15,
70:9 104:4	non-medical	96: <i>14</i> , <i>15</i> 124: <i>7</i>	17, 19 206:14
105:17, 22	214:17	150:16 151:3	212:8 215:22
106:1, 10, 12, 17	nonmembers	154:5 160: <i>14</i>	216:2
107:1 108:4, 12,	182:10	177:8, 10	occupations
15, 20, 22 109:1,	nonpartisan	179:22 186: <i>1</i>	40:1 47:15
12 110:18	18:6 38:15	201:2 203:7	occur 74:6
145:8 186:18	45:10	211:12	85:10 91:11
Nevada's	nonprofit 34:2	numbers 106:8	92:18 99:12
103:20 109:8	38:15 45:10	129:12, 20	208:13
never 32:10	83:1 94:22	nurse 65:4	occurred 92:8
67:4 152:4	non-regulatory	111:22 113:17	occurring 92:20
194:4, 6	194:9	Nursing 216:2, 6	occurs 84:20

88:1
o'clock 79:15
odd 188:15
offered 163: <i>14</i>
offering 130:8
offers 20:6
108:19
Office 2:4, 15
17:2, 4 26:4, 6
32:22 33:2
37:7, 9 43:1, 2
50:17, 18 51:10
17 56:7, 9 64:5
7 71:13, 15
77:6, 8 78:19
93:19, 20, 22
98:2, 4 103:8,
10 110:21
111:2 116:15,
17 121:2, 4
139:21 140:1
148:6 162:20
173:18, 21
203:8, 11 216:1
6 217:14, 17
officers 207:14
offices 214:22
official 215:17
officials 117:14
off-road 142: <i>19</i>
offset 30:20
oftentimes
119:4 176:3
209:4
Oh 133:21
159:9 169:22
170:13 185:2
202:15 218:21
Ohio 141: <i>18</i>
145:8

oil 101:22
132:13 142:22
Okay 17:7, 11,
21 23:1 26:13
33:4, 8 37:18
38:2, 5, 8 51:3
64:14 77:5
79:1 82:1, 3
90:7 94:7
98:18 122:18
139:14 140:10
150:21, 22
152:12 156:22
157:3 163:6
164:1, 8 168:3,
21 170:2 171:5
173:7 182:14
183: <i>3</i> 184: <i>15</i> ,
<i>16</i> 186:6 187:7,
<i>12</i> 188:7 189:5,
6, 19 194:7, 19,
21 199:19
200:22 201:6,
15 202:21
204:20 215:7
218:20
old 67:2 68:20
older 113:11, 19
115:4, 10 145:20
old's 66:16
onboarding
147:5
once 46:11, 12
63:12 80:18
onerous 146: <i>15</i> ,
<i>16</i> 149:6
ones 129: <i>13</i>
153:12 170:10
one's 51:21
one-size-fits-all

145:2
one-time 109: <i>3</i>
ongoing 114: <i>1</i>
147:5 179:9
onset 69:4
onsite 159: <i>3</i>
200:20
on-site 20:20
25:4 49:9
76:10 159:18
opened 11: <i>11</i>
operate 199:10
operating
145:22 146:3
operation 149:7
167: <i>4</i>
operational
146:12
operations
143:9 147:3
149:9 167:8
185: <i>14</i>
operator 155:10
162: <i>16</i> , <i>22</i>
167: <i>16</i> 169:8
operators 148:6
161:9 162: <i>13</i> ,
<i>15</i> 163:22
167: <i>14</i> 169: <i>9</i> , <i>16</i>
opinion 7:19
206:16
opportunities
81:3 108:20
opportunity 7:6,
18 9:2, 4 12:6
22:5 24:13
27:4, 15 32:14
34:6 42:14
51:14 65:14
66:18 71:6
72:14 73:21

111:20 117:18
120:10 128:19
141: <i>14</i> 188: <i>4</i>
202:19
opposed 20:21
195:17
opposite 157:13
option 10:20
49:4 135:10
161:11, 21
163:16
optional 120:6
126:20
options 163:21
oral 6:18 8:13
9:1
orange 75:6
ORDER 3:1
6:3 9:22 11:10
78:18 81:14
100:14 219:3, 15
orders 30:16
ordinances
118:13
organ 34:17
organization
12:10 23:3, 20
34:3 45:11
51:19 54:8
65:9 70:1
98:22 106:2
127:16 131:18
157:10 165:8, 16
organizational
9:8
organizations
7:11 15:10
55:6 57:8, 11
62:20 106:22
115.0
115:9

organizer 117:6,	115:8 116:5	OSHA'S 1:9	outdoors 68:3
13	117:18 118:1,	7:7, 15 13:9, 18	69:9 131:22
organizes 106:2	<i>19</i> 119: <i>15</i>	15:13 16:6	134:19 188:13
organizing	120:12, 15	18:11 25:21	outlined 16:8
127:10	123:11 125:13	28:4 29:19	42:10 99:10
organs 88: <i>13</i>	127:7 130:12	30:1, 11, 13, 20,	outreach 15:1,
origin 208:9	133:18 136:10	22 31:5, 21	10, 22 115:11
OSA 149:11	137:8, 18, 20	38:19 39:7	outside 28:14
OSHA 1:5 2:7	138:2, 22	49:1 50:5	47:17 59:5
6:21 9:1, 3, 10,	143:14 144:1, 9	58:17 64:3	75:11 169:10
16 12:14 13:11	147:13 148:5,	72:13 79:15, 16	177: <i>1</i> , <i>3</i> 189: <i>3</i>
14:4, 14, 16	<i>17</i> , <i>21</i> 149: <i>11</i> ,	87:4 93:11	outstanding
15:6, 21 16:9,	<i>12, 16</i> 150:5	94:2 97:19	104:9
17, 19, 20 17:14	151: <i>4</i> , <i>8</i> 153: <i>1</i>	103:22 104:1	outweighs 125:8
21:1, 12 22:9,	156:5, 7, 9	107:3 112:6	ovens 128:16
11, 17 23:11	157:7, 8, 18	114:9 135:21	143:11
25:20 28:8, 11	158:5 160: <i>13</i> ,	139:18 149:4	overdue 102:18
29:12, 21 30:3,	19 161:2, 6, 10	171:9 172:1, 9	206:18
10, 18, 21 31:7,	164: <i>11</i> , <i>14</i>	174:4 179:20	overheated
9, 10, 12, 15, 17,	165:5 168:6	212:10 214:1	132:2 191:6
22 32:17, 18	171:8 172:10	218:2, 3	overheating
36:22 37:2, 4	173:2, 8, 16, 17	ought 190:19,	190: <i>1</i> , <i>9</i> 191:2 <i>1</i>
38:12 42:3, 17,	176:16 180:15	21 191:15	192:6
18, 19 44:3	181:8, <i>21</i> 184:8	ounces 184:9	overlap 179:7
47:12 48:17	187:13 189:10	outcome 35:2	209:9
49:4 50:12, 14	191:12, 18	outcomes 95:16	overlooks 14:3
52:6, 15 54:1, 8	193:10, 11	OUTDOOR	overly 86:14
55:15, 16 56:1,	195:5 197:9	1:10 6:6 19:14	147:21
3, 4 57:22 60:1	198:10 200:1	28:14 34:8	overreach 27:21
62:3, 5, 6, 9, 14	202:8 203:19	35:8 36:13	28:17 32:6
64:1, 3 70:16	205:3 206:16	38:21 40:1, 4	overrepresented
71:8, 10 73:8	207:14 210:4	47:15, 19 49:12,	123:22
76:14, 21 77:2	211:10, 21	22 51:16 65:16,	oversight 124:13
78:18 87:12	212:4 214:4	19 70:16, 20	overstep 152:5
89:7, 18 92:5	216:2 217:7, 11,	79:18 95:4	overthought
93:9 97:11	<i>13</i> 218:7	99:19 118:2, 15,	168:18
99:21 100:16	OSHAEvents	21 119:13, 21	owner 178:10
103:1 104:8, 17	8:7, 8	120:4 123:13	184:2 198:22
106:9 108:12	OSHAEvents_DS	135:15 143:19	owners 198: <i>12</i>
109:5, 8, 16	G@dol.gov 8:9	175:22 178:3	
110:12 114:16		206:22 212:15	< P >

p.m 79:6
220:18
pace 66:5
package 198:5
paid 21:1, 6
28:13 31:8
36: <i>1</i> 52: <i>4</i>
53:22 54:9
57:16 126:16
130: <i>17</i> 133: <i>13</i> 163: <i>1</i>
pain 66:7 67:21
palatable 162: <i>1</i> Paloma 4: <i>12</i>
111: <i>16</i> , <i>19</i> , <i>21</i>
pamphlets 147:9
PANEL 2:7
8:22 9:3, 7, 11
13:15 16:17
38:12 64:1
93:15 103:1
137:12 139:15,
19 144:3, 7
146:19, 20
147:4 150:5, 15
panelist 80:17,
19 81:8
panelists 11:13
17:15 140:10
147:9
panels 143:22
panel's 51: <i>14</i>
144:5 147:14, 19
paper 62:17
63:2
paragraph 185:6
Paris 83: <i>17</i>
Parkland 66:3
part 7:16 8:3,
13 108:15
113:9 139:7

1.41.10	142.5
141: <i>10</i>	145:5
162: <i>12</i>	163:19
166:9, <i>1</i>	0
170: <i>11</i>	189: <i>13</i>
196: <i>10</i>	197:9
207:3 2	209: <i>1</i>
210:9, 2	0 211:6,
8, 10 21	8:3
partially	84:17
participa	ant
71:2 <i>1</i>	

PARTICIPANTS 2:1 3:1 8:17 9:7, 12, 21, 22 71:6 94:1 147:4 217:22 220:10 participate 35:15 150:13 participated 143:21 144:3 146:19 220:5 participating 26:15 33:10 94:2 150:11 152:13 220:8 participation 15:12 37:16 45:4 54:18 64:9 93:13 94:9 97:21 98:5 103:5 110:17 120:21 121:6 139:16 140:3 218:15 particular 95:19 112:15 113:20 115:1 161:9 176:6 182:3

205:6

particularly
13:16 16:1
22:2, 16 25:14
95:20 97:9
125:18 175:22
176:15 177:18
parties 6:18 7:5
partner 15:9
115:8 126:17
133:3
partners 124: <i>15</i>
parts 47:21
100:14 169:12
party 83:18
pass 48:10
90:1, 2 120:11
passed 48:13
125: <i>1</i> 182:8
191:8 216: <i>11</i>
passes 132: <i>14</i>
patchwork
57:19 58:2
pathological
91:17
pathologist
87:15
pathology 82:7
216:8
pathophysiology
87:17
patience 199: <i>15</i>
patient 82:20
patients 65:11
109: <i>21</i>
Patricia 4:19
122:22 134:5
pattern 113:10
pause 37:12
paved 128:17
pavement

pay 40:6 46:18 148:10
paycheck 100:16
paying 60:20
peak 16:1
peeking 176:10
pending 51:3
Pennsylvania
145:10
people 7:11
14:19 19:15
30:5 45:15
46:8, 18 47:13
48:8 53:4, 16
69:7 73:20
74:9 75:1, 3, 14, 16, 17 83:15
84:13 88:14
96:1 99:8
100:18, 19
101:5, 12, 16
122:8 124:4, 6
129:17 130:2
133:8 135:9, 17
136:20 137:5
182: <i>10</i> 191: <i>5</i>
211: <i>1</i>
pepper 66:5
percent 29:7, 8
47: <i>5</i> , <i>16</i> 58: <i>14</i>
92:6, 7, 10
101:20 102:5, 8
119:13, 14, 19
132:11 141:22
142:14 146:11
186:22 188: <i>1</i> ,
19 194:17
199:11, 12
207:22

108:14, 16

percentage	personal 100:4	physician 82:6,	145:15 146:22
36:13 200:19	107:18 128:20	19 90:10	148:18, 20
201:2	194:10 208:15,	105:17, 22	160:2 <i>1</i> 161:2
percentages	16	109:20 159:2,	168:9, 11, 15
36:13	personally	11, 12, 13 205:14	171:10, 12, 17
perennial 204:2	131:22 163:20	physicians	179:12 200:4, 7,
Perfect 134: <i>4</i>	167:21	159:18 206:14	10
202:21	persons 9:5	physiologic 84:9	planting 130:4
perform 68:8	13:22 17:8	208:13	plants 66:5
88:10 96:7	perspective	physiological	142:10
148:8	83:17 105:4	91:9, 17 95:8	plaques 85:3, 5
performance	112:5 159:6	picking 67:8	plasma 208:11
62:19 63:6	160: <i>1</i>	piece 21:4	play 166: <i>14</i>
110:7	pertaining 23:11	piecemeal 42:1	178:9 193: <i>3</i>
performance-	pertinent 6:19	pioneering 76:3	played 73:4
based 59:15		place 13:6	playing 104:12
151:8, 19	PETROPOULOS	14:10 143:12	plays 165:22
180:16 183:6, 7	2:11 24:21	145:1 146:22	pleasant 17:12
184: <i>14</i>	25:1, 11, 18	148:19 159:12	please 9:17
performance-	152:13, 15	160:22 168:9	10:15, 21 11:14,
oriented 151:5	154:2 156:1, 15,	171: <i>11</i> 179: <i>13</i>	20 17:17 26:20,
180:14	22 157:2	200:4, 8	21, 22 33:14
perfusion 88:13	158:10, 20	places 34:14	37:20 43:8
perils 48:11	159:22 160:8	40:11, 12 107:8	45:7 51:7
period 6:20	178:1 184:19,	145:10 169:13	56:19 64:19, 20,
8:18 10:9	22 185:4, 11, 15	placing 66:4	22 72:6 73:6
22:22 109:13	186:6 187:4	211:17	78:10, 11 80:13
162:16 202:17,	215:8, 9, 13	plan 20:8	81:11, 16, 20
19 208:18	217:4	30:14 48:17	90:4 94:12
periodic 14:13	phenomenon	55:19 107:8, 9,	98:12 103:15
periods 14:18	88:19 143:4	14, 21 108:2	105:15, 19
109:17 118:14	Phoenix 117: <i>13</i>	151:17 160:17	111:12, 14, 17
148:5	118:4, 6, 11	161: <i>13</i> 179:8	117:4, 8 121:10
Perkison 212: <i>13</i>	121:14, 17, 18	183: <i>4</i> 200: <i>13</i> ,	122:22 137:4
permanent	122:6	14 205:1 207:6,	141:7 174:20
68:13 113:21	phone 81:11	9, 10, 13, 14	182:15 205:11
208:9	142:5	plane 142:4	219:7, 10
permits 9:5	phones 9:15, 18	planning 59:2	pleasure 116: <i>13</i>
person 108:1	81:1	plans 21:15	plurality 119:12,
133:21 148:9	physical 101: <i>3</i>	44:18 87:9, 10	21
	121:18 133:2	130:8 143:12	

plus 47:16 70:3	poses 42:
155:6	positions
pocket 46:19	position's
point 8:20 51:5	positive 1
58:1 67:18	positively
166:16 191:5	possibility
201:22 208:21	possible
210:8 220:2	63: <i>15</i> 89
pointed 183:12	106:5 12
201: <i>11</i>	131:5, 9
points 31:9	200:8 21
125: <i>16</i> 138: <i>17</i> ,	possibly
18 144:6	possibly post 22:2
police 30:2	109:9 15
policies 28:3	153:11, 22
38: <i>17</i> 49: <i>18</i>	170:8 17
61:10, 11 118:18	189:14 1
POLICY 3:11,	postal 20
13 18:4, 6, 8, 9	postar 20
19:12 28:5	6:20 10:5
33: <i>17</i> 34: <i>1</i>	16:14 62
38:9, 13, 14	63:9 137
42:21 45:9, 11	138:5 13
50:9 52:1 57:5,	150:18 1
7, 11 94:21	153:8 15
117:16	158:11 1
politically 31:7	160:5 16
pool 110:5	162:9 16
poorly 128:15	166:19 1
population	169:3, 6
47: <i>11</i> 74: <i>11</i>	171:3 17
95:20 106:12	180:7 19
populations	196:7 20
13: <i>17</i> 19: <i>12</i>	20 203:18
36: <i>12</i> 69: <i>7</i>	205:1 21
95:1 97:10	potential
115:10 119:9	195: <i>4</i>
portion 135:14	potentially
pose 29:18	91: <i>19</i> 15
posed 157:7	189:15 2
poscu 157./	poverty
	poverty 2

poses 42:6
positions 53:20
position's 109:18
positive 118: <i>15</i>
positively 76:17
possibility 53:7
possible 10:3
63:15 89:20
106:5 127:8
131:5, 9 138:22
200:8 214:14
possibly 110:3
post 22:21
109:9 151: <i>13</i>
153:11, 22
170:8 173:11
189: <i>14</i> 190: <i>11</i>
postal 206:1
post-hearing
6:20 10:9
16: <i>14</i> 62:22
63:9 137: <i>14</i>
138:5 139:17
150:18 152:20
153:8 156: <i>12</i>
158:11 159:20
160:5 161:2
162:9 165:2 <i>1</i>
166: <i>19</i> 168: <i>11</i>
169: <i>3</i> , <i>6</i> 170: <i>17</i>
171: <i>3</i> 172: <i>14</i>
180:7 190:5
196:7 202:6, 11,
20 203:18
205:1 217:10
potential 144:22
195:4
potentially
91:19 156:17
189: <i>15</i> 220:8
poverty 47:4

power 51:19 123:8 142:10, 20 powerful 113:4 powering 120:5 powertrain 142:17 Poydock 3:12 37:19, 21 38:2, 4, 8, 9, 12, 13 42:20 43:6, 15 44:13 45:3 **PPE** 155:14 170:13, 20, 22 208:15 practical 24:17 29:15 136:3 practice 58:12 85:11 104:16 107:17 194:11 210:21 practiced 82:7 90:10 **practices** 107:*15* 186:4 197:10 practicing 198:10 practitioner 65:5 94:18 210:20 preaching 181:12 precedent 83:8 preconception 90:21 **prediction** 70:1 preempted 41:20 43:21 **preempts** 48:15 preexisting 88:14 **prefer** 178:17

pregnant 13:22 53:1, 4 69:8, 10 88:15 95:17 **premiums** 40:*19* preparation 78:15 **prepare** 57:12 218:1 prepared 106:7 preparedness 57:5 preparing 130:5 prescriptive 147:17 151:2, 18 157:10 158:4 180:11 181:12 183:5 184:*8*, *13* presence 26:21 64:20 78:11 111:14 219:9 PRESENT 5:7 17:8, 19 77:18 83:2 93:19 94:3 204:17 presentation 76:21 77:22 140:9 214:11 presented 77:11 presenters 180:6, 9 presenting 8:14 preserving 190:8 President 30:14 32:7 president's 30:15, 21 **PRESIDING** 2:2 6:16 7:2 press 9:17 81:5

pressing 9:14
pressure 125:7
pressures 176: <i>16</i>
pre-submitted
8:12
pretend 31:17
preterm 53:7
69:11
pretty 164:20
186: <i>1</i> 199:8
prevalent 88:4
201:4
prevent 39:11
44:9 68:18
70:20 75:22
93:6 135:22
207:19
preventable
29:10 66:16, 17
68:22 70:6
84:18 86:14
99:4, 7 100:19
106:9 115:20
125:3 213:2 <i>1</i>
preventative
154:8
prevented 73:2
85:19 87:3
114:7 212: <i>4</i>
preventing
58:11
PREVENTION
1:10 6:6 12:16
20:7 38:20
52:8 65:12, 16,
21 79:18 87:4,
9 95:4 107:7
112:7 114:17
120:6 135:22
143:19 145:15
146:2 <i>1</i> 148: <i>18</i>

151: <i>17</i> 160: <i>17</i> ,
<i>21</i> 183:4 207: <i>3</i>
preventive 90:16
previous 72:22
101:13 143:17
149:5 180:5
previously 71:1
91: <i>11</i> 150: <i>12</i>
prices 29:3
pride 134:20
primary 109:19
principle 199: <i>11</i>
prior 30:4
priorities 32:8
123:18
prioritize 15:21
16:11 30:3
private 61:7
128:9 194: <i>11</i>
privilege 129:6
proactive 58:4
61:15 73:2, 17,
22 75:18 76:5
proactively
48:11 72:20
probably 68: <i>15</i>
74:17 138:14
170:2 185:2 <i>1</i>
186: <i>15</i> 187:2,
22 188:20
194: <i>17</i> 196: <i>16</i> ,
<i>18</i> 201:2 <i>1</i>
206:17 211:5
215:4 217:2
problem 84: <i>16</i>
86: <i>4</i> 176: <i>6</i> , <i>15</i>
177:2 <i>1</i> 182: <i>12</i>
204:2
problems 84:12
85:10, 22 86:14

41:3 42:9, 12
48:4 52:19
55:21 60:12
69:14, 17, 19
114:4 133:14
products 86:11
143:1 145:11
professional
34:4 85:10
159: <i>3</i> 214: <i>16</i>
professionals
28:20 82:11
89:10 99:1
106:3 163:4
205:20 214:15,
18 215:14
proffered 77:14
proficiency 15:6
profits 133:8
profound 48:5
profusely 209:11
program 59:11
123:6 134: <i>12</i>
194: <i>17</i> 207: <i>3</i>
programs 147:1,
5 179:9 181:5
212:5
PROGRESS
3:4 18:5 40:16
87:20 209:11
progression 209:13
PROGRESSIVE
3:9 33:17 34:2
Project 121:12
142:6, 7
Projections 91:4
projects 128:9
prolonged 84:9
85:1, 7, 18, 20
promise 117:22

	I	1	1
promote 11:12	15 31:3, 4, 6, 13	132:4, 6 137:21	136:11 137:1
99:2	34:6 35:11	144:14 147:2	144:21
promoted 80:16,	38:20 39:7, 9,	149:4 155:14	protective 21:11
18 81:8	12, 15 44:8	206:19	49:19 70:12
promoting 44:1	45:18 49:1	protected 15:13	89:5 100:5
prompt 213:2	51:15 59:8	28:2, 3 43:17	107:11, 18
promptly 52:6	65:15, 20 70:19	127:12 138:3	151:10 165:19
promulgate	89:7 97:11	protecting 24:2	180:17 208:16
57:22 58:4	99:11 102:14	43:20 48:7	protocols 57:17
191: <i>19</i>	104:6 105:2	59:14 72:21	110:9, 10
promulgated	107:2 109:7	73:4, 10 116:3	114:21 159:11
32:10 59:17	118:12 135:21	123: <i>19</i> 131: <i>1</i>	proud 128:6
61:7 63:12	143: <i>18</i> 144: <i>1</i> , <i>4</i> ,	199:3 218:4	134:6
promulgating	9 147:16, 19, 20	protection	proven 93:5
182:6 193: <i>13</i>	148:2, 17, 21	13:16 20:6	provide 8:5, 6
promulgation	149:6, <i>11</i> 151: <i>1</i>	21:3, 7 44:4	10:13 20:4
57:14 61:19	153:1 161:10	55:10 58:3	21:1 22:2
pronounced	164: <i>15</i> 165: <i>1</i> ,	104:17 105:3	24:14 27:15
31:1	10 171:12	123:21 130:8	35:19 39:7
proof 29:18	180:10 189:21	132:15 133:9,	44:3, 16 52:18
216:15	196:6, 9 206:19	17 208:3 212:11	59:22 63:1
proper 68:13	208:2 211:11	protections	70:14 80:18
75:2 124:22	214:1	15:17 16:10	84:11 87:12
proportion 29:4	proposing 12:15	20:16 34:8	105:3 115:14
proposal 13:18	54:2 89:18	35:13, 14 36:6	126:18 138:1
15:13 21:1	prosperity 30:16	39:8, 10 41:6	144:1, 21 153:7
28:5, 8, 11 30:3,	protect 13:21	42:2 45:15	157:18 158:11
4 42:11 109:5,	18:11 19:12	48:19 52:17	164:15 167:5, 9
16 144:10	20:1 30:11	58:21 59:5, 13,	168:16, 19, 20
149: <i>14</i> 152: <i>18</i>	38:17 39:19	22 62:1, 13	169: <i>1</i> , <i>3</i> 171: <i>14</i>
157:10 161:7	42:11 44:12	70:14, 21, 22	172:5, 10 184:9,
163:16 201:12	52:8, 18 55:20	95:19 97:14	11 185:9
proposals 19:12	57:15 58:7, 19	101:11 102:16	193:13 197:11
147:21	70:10 71:4	104:2, 14 114:9	200:6, 8, 14
propose 38:17	74:1 82:21	115:3 118:3	provided 10:8
proposed 6:5, 7,	93:2 99:2, 8	119:12, 16, 17,	79:8 92:19
19 7:19 13:9,	100:18 102:19	22 124:12	148: <i>17</i> , <i>21</i>
<i>13</i> 14:7 16:6	104:20 106:12	125:17 126:5, 9,	158:15 164:13
18:13 20:3, 5,	108:20 112:4	11 127:6 128:3	182:21 185:12,
17 21:19 22:5	114:11 115:22	130:1, 7, 15, 20	18 190:20
28:4, 18 29:14,	120:3 123:12		

212:6 213:8	published 6:8	questionnaire	173:10, 15, 18,
provides 35:22	62:20	212:10, 14	22 174:1, 8, 13
providing 52:21	punctuation 8:7	questionnaires	179:15, 18, 22
54:6 70:18, 22	purely 59:15	212:9	187:10, 15
93:4 151:10	159:16	questions 9:2, 4,	193:8 199: <i>15</i> ,
180:17	purport 214: <i>1</i>	6, 7, 11, 12, 17,	21 201:22
provision 108:9	purpose 6:17	21 10:1, 2, 3, 14,	202:7 203:3, 9,
157:19 165:7	pursuing 83:20	16 16:14, 16, 20	14 205:4 214:4,
189: <i>14</i> , <i>15</i> , <i>21</i>	push 125:9	17:5 22:9, 12	7 217:15, 17
190: <i>4</i> 191: <i>19</i>	pushed 101: <i>3</i>	23:11 25:21	218:11 219:20
provisions	112:15	26:4, 7 31:2, 5	220:7
62:12 106:12	put 83:17	32:16, 20, 22	quick 121:14
126:6, 15	132:7 176:7, 18	33:2 37:1, 4, 7,	170:18
161: <i>14</i> , <i>16</i>	putting 21:10	9, 13 42:15, 17,	quickly 155:18
165:18 172:8	133:18	19, 22 43:3, 5,	207:14 208:19
195: <i>5</i> 206: <i>19</i>		11 45:1 50:12,	209:14
proximity 96:8	< Q >	<i>15, 16, 19</i> 51: <i>1</i> ,	quintessential
public 6:4 11:9	question 9:16	3 52:3 56:3, 6,	175:12
17:8 18:4	10:6, 7, 18, 22	8, 10, 13 62:4	quite 115:3
26:10 33:5	11:1 17:2, 9	63:22 64:4, 6, 8	158:3
38: <i>17</i> 41: <i>4</i>	22:13, 17, 20	71:9, 12, 16, 20	quotas 125:7
51:1 56:13	24:12, 16 25:6	76:22 77:3, 5, 9,	quote 28:20
60:19 64:11	26:11 30:2, 17	<i>18</i> 81: <i>4</i> 93: <i>9</i> ,	66:11 69:16
79:20 81:13	62:6 63:8, 10	14, 19 94:1	153:3, 5 154:5,
94:4, 18 98:7	64:11 81:7, 9	97:17, 20 98:1,	9 157:19, 20
99:1, 3, 4, 7	94:5 104:6	7 103:1, 4, 7, 11,	178:3 214:15
103:13 104:19	110:20 121:14	13 105:7	
105:3, 8 111:6	122:13 138:12	110:13, 16, 21	< R >
116:20 121:8	151:13 154:2	111:3, 5 116:6,	racial 96: <i>15</i>
122:16 128:9	156:16 157:5	9, 14, 18, 19	127:6
140:5 143:18	158:21 159:5, 9,	120:16, 19	radiant 108:13
144:8 174:6, 8	21, 22 160:4	121:1, 5, 7	187: <i>16</i> , <i>21</i>
204:17 218:10	162:9 164:9, 14	122:16 137:9,	radical 130:10
public_hearing@	166:22 170:5,	12 139:18	raids 49:7
abtassoc.com	<i>19</i> 171:2 <i>1</i>	140:2, 5 150:5,	rail 143:1
81:12	185:3 188:7	16 151:5	raise 9:17
publicist 30:12	197:8 200:18	152:17 153:6	26:20, 22 29:2
publicity 30:4	202:10 204:18	156:4 157:7	64:19, 21 78:10,
publicly 16:2	206:13	160:10, 11, 12,	12 81:5 111:13,
60:17 220:5	questioning 10:1	15, 17 164:13	15 219:11
		168:4, 8 171:6	

raised 23:14	real 18:8 32:4	received 7:5	reconcile 30:21
24:4 57:18	126:2 <i>1</i> 130:6	68:18 193:6, 9	198:17, 21
raise-hand 219:8	170:18	218:5	reconvene
raises 155:15	realities 14:4	receiving 11:9	140:21
raising 9:13	reality 113:2	173:11 202:6	reconvened
23:16 193:7	115:21 121:19	recess 140:15	220:15
rallied 57:10	124:8 129:7	recognize 12:20	record 6:2, 22
ramp-up 162: <i>16</i>	181: <i>11</i> , <i>16</i>	15:2 20:2 67:5	7:4 8:3, 11, 13,
range 85:13	realize 211: <i>16</i>	68:19 91:20	20 10:14 11:11,
99:18	realizing 24:16	115:2, 5, 21	15, 16, 21 17:17
ranging 28:15	really 53:21	178:9 198:8	23:9 27:1
205:22	55:1, 17 72:14	209:21 210:7	33:15 35:5
rapid 84:20	73:1 74:12	211:17	37:20 43:8
92:17	75:11 76:3, 13	recognized	45:7 51:7
rapidly 87:20,	135:5 163:15	18:15 57:4	56:19 65:1
21 91:16 93:3	178:2 202:4	68:15 210:19	70:3 72:6
106:8	204:7 209:5	211:10, 22	77:10, 14 79:12
rare 8:4	216: <i>15</i> 218: <i>3</i>	recommend	81:17, 21 83:9,
Rarely 84:22	reason 46:22	20:4 21:12	11, 12 90:4
rash 209:8	177: <i>17</i> 191: <i>1</i>	23:4 35:10	94:12 95:2
rate 21:4 84:21	192:5 199:3	52:14 65:17	98:12 103:15
rates 40:13	reasonable 14:9	115:8 139:2	105:15 106:13
95:13	32:11 86:5	recommendation	111:18 117:4
ratio 47:4	136:6 178:6	54:14 86:5	118:9, 10
reach 69:20	191:22 214:19	104:10 105:2	121:10 140:18
145:22	reasonableness		141:5, 8 143:7
reached 182: <i>12</i>	193:2	recommendations	174:20 197:19
219:15	reasonable-	13:14 16:10	205:12 217:21
reaches 49:18	person 190:22	19:17 21:15	218:2, 6 220:2,
89:9	reasonably 28:6	24:8 144:5	17
reaching 83: <i>13</i>	58:18 107:8	147:14 151:7	recorded 10:12
118:9 210:6	175:4	165:17 180:15	106:13 118:10
reacting 154:22	reasons 44:2	203:19	206:10
read 129: <i>19</i>	45:13 48:9	recommended	recording
140:16 175:2	recall 78:7	25:4 45:19	168:14 201:20
194:4 209:20	196: <i>13</i> 216: <i>3</i>	157:18 206:17	recordkeeping
readily 203:16	219:4	recommending	147:15 159:6
reading 178:4	receive 6:17	23:19 63:13	160: <i>1</i>
181: <i>15</i>	80:15 195:3	recommends	recover 39:13
ready 58:13		20:17 54:8	92:12
75:16			



	1	1	1
recreation	regional 126:4	rejoining 79:7,	remo
47:18, 20	145:4 153:2	16	renal
rectal 216:10	156:3	related 18: <i>17</i>	rende
red 28:17	regions 124:20	28:10 35:6	rent
29:11 30:14	149: <i>15</i>	66:12 70:5	repai
75:6 136:2	Register 6:8, 10	95:18 106:4	repea
reduce 21:20	registered	109:11 129:16	repea
39:12 50:6	111:2 <i>1</i>	156:16, 18	repea
97:8 107:15	registry 16:3	157:5 186:6	185:.
115:22	regs 194:4	200:10	repea
reduced 46:14	198: <i>13</i>	Relations 106:18	repet
69:15 76:10	regular 110:3	relationship	repla
reducing 59:19	164:2 <i>1</i> 186: <i>1</i>	57:5	148:
61: <i>13</i>	regularly 118:7	relatively 186:21	repla
Reduction	211:9 212:9	relax 180:3	162:
30:10 40:22	regulate 89:6	release 66:11	repoi
refer 173:4	182:2	released 19:11	46:10
reference 103:19	regulated 198: <i>11</i>	relevant 15:5, 8	69: <i>1</i> 0
referring 162: <i>19</i>	regulating 29:5	125:21 219:20	119:
reflect 129:12	regulation 34:5	reliable 14:16	130:
reflection 167:22	48:7 65:18	relying 43: <i>13</i>	repoi
REFORM 3:9	106:5, 20 107:2	109:2 139:7	99:2
33:17 34:2	148: <i>15</i> 198: <i>7</i>	remain 106:7	112:
refreshers 147:1	regulations	113:16	206:
reg 138:10	70:12 108:8	remainder 79:3	repoi
195:18	198: <i>1</i> , <i>2</i> , <i>3</i>	remaining	13, 10
regarding 22:13	regulations.gov	113:12	81: <i>1</i> 0
52:3, 7 65:21	11:6 205:6	remains 113: <i>1</i>	repoi
106: <i>4</i> 148: <i>1</i>	regulators 59:20	remember	119:
159:4	regulatory 28:3,	10:15, 21 11:13	repoi
regardless	17 30:20 32:6	155:10 181:17	repre
28:10 36:3	124:12 138:2	198:18	36:12
55:18 119:16	143:22 183:20	remind 10:11,	repre
130:19 136:16	194: <i>13</i>	<i>19</i> 11: <i>4</i> 115: <i>16</i>	101:2
165:14 208:8	rehydrate 75:20	219:17	216:2
regards 44:13	rehydration	reminder 79:21	repre
regime 29:5	74:8	reminders 147:8	15: <i>1</i> .
region 91:6	reinsurer 61:2	remote 24:5	174:
96:11, 12 149:8	reiterate 45:14	remotely 210:14,	repre
156:8 208:9	rejoin 79:3	16, 17	9:1
			103:

ove 14:19 al 88:*15* ler 107:8 129:19 iring 112:*19* eal 30:18 eat 90:3 eated 46:14 :5 eatedly 36:10 etition 7:21 ace 100:14 14 acements 14 rt 19:3, 22 0 55:3 6, 22 11 125:19 16 rted 35:7 21 100:6 9 118:16 6 212:3 rter 10:12, 6 11:16 6 rting 15:21 19 129:14 rts 19:*11* esent 27:16 2 175:13 esentation 22 132:13 :21 esentative 5 54:20 resentatives 15:16 19

represented	107:4 136:10	143:17 156:14	result 28:16
81:19 122:21	213:16, 19	164:17 206:2	69:14 90:12
representing	214:12	responses 10:15,	132:21 144:13
65:7 123:10	research 19:6	16 20:20 84:9	182:4
196: <i>11</i>	34:3 38:16	117:16 164:12	results 75:5
represents	40:9 42:5	199: <i>17</i>	88:20 91:17
122:7 141:21	45:10 50:1	responsibility	retail 54:12
175:3	82:20 88:21	100:17, 18	175:21 179:1, 2,
reprisal 15:19	94:21 95:11	117:19 137:2	5 188:9, 19
request 24:17	108: <i>15</i> 133: <i>1</i>	192:10	197:5
77:9 114:18	researcher 94:19	responsible 19:7	retailers 175:19
138:13 143:18	researchers	34:18	retaliation
191:22 192:2, 11	19: <i>1</i> 41: <i>4</i>	rest 17:12	35:16 46:9
require 14: <i>13</i>	reside 206:13	21:13 23:12	49:7 100:6
21:9, 12, 22	resident 127:22	24:18 28:13	125:17, 20
99:7 129:5	208:9	31:8 48:5 54:1,	130:15 136:11
142:16 149:18	residents 46:20	9 57:16 58:9,	147:11
154:8 164:15	47:9	22 59:10 67:10	retaliations
210:4	resilience 47:2	73:10 74:20	35:14
required 20:8	57:6 106:11	75:13, 20, 21	retired 82:6, 19
59:22 80:4	resilient 116:1	93:5 97:3	87:15
87:10 89:7	resort 110:5	100:21 102:16	return 52:20
96:8 158:5	resources 29:20,	107:22 114:19	136:22 159: <i>13</i>
193: <i>17</i> 211: <i>3</i>	22 30:2 32:10	118:14 130:9	returning 14:1
212:10	100:6 115:14	133: <i>13</i> 136: <i>4</i>	89:16 114:21
requirement	176:7, 9, 22	147:16 164:9,	147:22 208: <i>1</i>
14:9 44:11	respect 120:5	16 165:7, 10, 17	210:3
49:15 164:15	130:6	167:7, 19 177:5,	review 6:21
165: <i>1</i>	respects 131: <i>10</i>	7 180:19	32:8 36:20
requirements	respiratory	183:13, 18	63:16 87:16
22:18 44:18	212:10, 11	189:8, 11, 13	171:16
57:20 59:9	respond 57:13	190:2 195:4	revisit 205:4
109:14 114:20	115:2 159:20	196:5, 8 207:18	rhythms 84:22
148:2 149:7	162:9 218:2	213:6	right 13:10
157:11 196:5	219: <i>19</i>	restaurant 128:5	16: <i>15</i> 21: <i>17</i>
requires 21:19	responded 125:1	resting 66:20	26:3, 13 32:21
28:8 35:19	responding	restore 30:14	37:6, 12 42:22
68:22 88:10	162:8 220:6, 7	restoring 30:17	43:5 45:3
134:15	response 10:18	restrictions 10:1	50:16, 22 56:2
requiring 39:17	102:17 108:3	restroom 50:2	62:3 63:22
48:15 87:8			64:5 71:19

72:1 75:4, 15	107:6, 16	23:6 24:11	181:
76:19 77:13, 17,	108:14 109:19	25:9, 17, 22	8, 13
21 78:3, 14	113:20 114:22	26:2, 7, 14, 16	196:
79:11 94:16	115:12, 17	rotating 146:6	RUL
97:16 98:15	124:5 128:17	rough 201:3	1:9
102:22 103:12	132:7, 16	roughly 74:3	8:4,
105:10, 19	136:18 190:1, 9	188:18	42:4
110:12, 20	191:2 <i>1</i> 192:6	routes 119:5	143:
111:4, 8 114:12	207:7, 22	rule 6:5, 19 7:1,	174:
116:9, 22	208:15 211:13,	19 13:13 20:3	178:
117:11 120:10,	16 212:6	21:19 22:6	218:
13, 15 133:10	risking 51:21	28:4, 12, 18	rules
137:7 138:4	54:5	29:2, 14, 15	17
140:4, 8, 16	risks 18: <i>16</i>	30:2, 3, 13, 19	49:8
141:3, 6 150:3	20:15 39:12	31:3, 4, 6, 13, 14,	82:2
174:12 177:21	61:1, 8 97:8	18 32:6, 12	104:
180:4 184:12,	101:13, 17	34:7 35:11, 13,	15
17 190:13, 17	108:6 114:13	17, 22 36:4, 9,	144:
192:9, 18 193:5	120:9 134:21	11, 17 38:20	181:
196: <i>14</i> , <i>21</i>	211: <i>17</i>	39:7, 9, 12, 16	184:
198:6, 17, 19	road 197:3	44:8 45:19	rule'
201:8, 17 218:8,	roads 130: <i>3</i>	48:19 49:1, 12	Ruli
13 219:13	132:8	50:8 51:15	rulin
right-hand	robust 15:17	52:7, 15 54:17	19, 2
80:11	16:10 52:7	55:8, 15 56:1	run
rights 15:2	role 7:2 73:4	57:22 58:5	153:
52:3 102:18	80:19 104:17	60:6, 7, 8, 15	163:
138:9	148:6 159:17	61:16, 19 62:11	runn
rise 83:7 87:22	Romps 91:8	63:3, 12 65:15,	runn
91:5	roofers 96: <i>4</i>	17, 20, 22	132:
rises 88:7 129:1	roofing 112:20	100:17 102:15	137:
rising 18:11	room 30:19	103:20, 22	169:
20:20 96:22	35:6 167:21	104:1, 6, 10	182:
risk 13:6 14:4,	179:6	107:3 108:13	runs
11 19:13 28:6,	rooms 179:5	130:12 131:8	rupt
10 30:1 32:4	188:22	135:21 136:1, 2,	rura
53:12 61:12	rooted 134:10	10 137:2, 5	22:3
74:12 86:3	rose 106:14	144:2, 4 147:19	126:
88:16 95:15	Rosenthal 3:5	148:17 149:6,	rusti
97:2, 10 100:15	17:16, 18, 21	11 165:6	RYA
101:5 102:13	18:1, 3, 4 22:20	175:15 176:16	16: <i>1</i>

25 10 20 22 10	1 14 04 10		1.60 14 167 20
25:19, 20 32:18	salt 84:18	SCIENTISTS	162:14 167:20
37:2 42:18	127:22	3:17 19:15	178:1 179:6
50:14 56:4	sat 67:8	40:3 56:21 57:4	secondary 14:5
62:5 64:2	save 70:16	sclerosis 86:4	secretaries
71:10 77:2	130:11 136:1	scope 28:11	100:10
137:16, 17	211:3	45:20 129:12	sector 60:22
160:16, 19	saved 61:13, 14	206:21	61:7
	76:9	scorching 125:2	sectors 28:21,
<s></s>	saves 131:9	scratching 177:9	22 149:16
sacrifices 128:18	saving 59:3	screen 11:10	sector's 60:20
sad 181:11, 16	126:20	80:11, 13, 16	secure 58:4
safe 14:14	saw 53:15	81:15 219:9	123:8
54:19 104:13	134:17 176:10	screening 211:8	security 51:22
106:7 107:9	182:22	212:5, 9, 14	sedentary 14:12
117:20 136:5, 8	saying 172:2	screenings	see 26:18 32:16
149:22 170:6	193:5	126:18 211:22	37:12 40:22
safeguard 21:7	says 141:4	screws 142:2	42:16 44:10
safeguarding	191:20 192:2 <i>1</i>	scrupulous	49:4, 12, 15, 20
12:17	194:5 215:2	218:2	50:5, 8, 12 56:2,
safeguards	SBREFA 150:12	SCSJ 12:9 16:9	12 61:10 64:17
136:19	scale 199:2, 4	searchable 204:4	71:19 72:16
safely 35:15	scenarios 30:22	season 29:19	74:13, 21, 22
52:20 137:2	schedule 7:7	seasonal 35:9	75:1, 3, 15
SAFETY 1:5	8:1 9:20 11:18	36:7 126:5, 7	76:22 77:18
6:5 12:14 15:3,	78:17 161:6, 19	130:21 136:18	78:4, 8 80:12
19 21:9, 15	165: <i>11</i>	137:21	101:3, 7, 11
28:7 29:4	scheduled 23:17,	SEAWAY 4:20	111:5, 11
30:11 31:12, 13,	19 24:1 161:17	141:10, 17, 18	129:20, 21, 22
16, 19 35:19	165:6, 17 190:2	144: <i>14</i> 146:8	131:14 133:21
55:2, 18 62:18,	196:8 219:16	154:13, 17	169:20 177:19,
20 63:5 66:14	scheduling 24:18	158:3, 21	21 179:12
86:6 96:6 97:5	Schneider 59:21	159:10 167:10,	183:2 184:22
108: <i>1</i> 113: <i>11</i>	scholars 34:4	11, 13, 22	189:4 192:22
118:21 119:18	school 90:17	169: <i>11</i> 173: <i>13</i>	196:4 201:18
123:19 125:8,	100:8	174:2	205:21 206:11
22 130:9 131:2	science 30:15,	Second 14:12	209:15 219:14
132:4 147:8	<i>17</i> 62:20 91: <i>1</i>	20:17 31:12	seeing 10:17
149:10 176:8	113:6	67:19 86:20	154:21
179:8, 9 200:3,	science-based	113:11 124:11	seen 52:9
10, 13, 14	99:10 102:16	159:21, 22	53:12, 18 55:8
	scientific 58:9	161:10, 11, 21	

	1	1	1
80:11 118:10	123:18 148:10	15 170:19	95:11
135:2 177:17	166:15 202:11	195: <i>13</i>	shrinking 28:21
seizures 84:15	206:6	sharing 220:12	shutdown 34:17
select 80:3	sets 145:2	Shelley 4:8	sick 52:5
self-select 110:8	setting 31:22	98:11, 13, 21	117:11 135:11
send 81: <i>11</i>	65:20 83:9	shelves 132:8	136:15 206:15
148:9	117:2 <i>1</i>	shift 74:20	side 80:11
Senior 33:16	SETTINGS	112:15 128:16,	sierra 8:8
34:1 38:13	1:11 6:7 20:14	22 144:17	186:18
45:9 115: <i>13</i>	38:21 51:16	shifting 107: <i>17</i>	sight 83:8
sense 132:6	65:16 79:18	shifts 74:4	sign 57:11
163:15	95:4 143:20	110:3	159:11, 13
sensible 114:7	setup 109:22	SHIN 2:13	signatories
sensitive 32:1	166:8, 9 167: <i>14</i>	171:6, 7 173:7	57:13
126:3 139:9	seven 41:15	199:22 200:1, 6,	significance
167:3	76:8	17 201:2, 4, 7	217:2
sent 7:10	severe 127:2	ship 142:10	significant 15:4
sentence 125:4	132:16	shipbuilding	18:16 31:7
154:5	severity 107:10	143:1	40:14 47:6, 10
separate 209:4	113:8	shoestring	91:13, 17
September 8:19	sewer 142:21	182:11	113:22 135:14
202:17 220:1	shade 24:7	shop 187:2	significantly
series 19: <i>11</i>	57:16 58:10, 22	short 141:4	46:13 59:7 76:9
serious 28:2	59:10 73:10	198:7	signs 67:5
29:8 34:16	75:13 93:4	shortages 146:5,	
35:4 68:2	102:17 107:16	15	12 107:22
96:22 213:13	114:19 118:17	shoulder 40:8	210:1, 18 212:20
Service 20:18	136:4 207:18	should've 191: <i>3</i> ,	silence 125:10
206:6	shaded 14: <i>17</i>	4	silica 212: <i>1</i>
service-heavy	118:14	show 31:16	similar 103:22
47:22	shady 67:7 68:9	70:2 74:18	128:13 183:19
services 22:4	shaking 10: <i>17</i>	136:20 169:18	193:8 195:4
50:7 86:12	shallow 66:9	showing 31: <i>14</i> ,	Similarly 49:7
115:13 199:7	share 23:21	17 107:22	57:22 172:5
serving 115: <i>10</i>	24:9 25:12	112:11 202:16	simple 58:21
session 77:15	80:4 83:2	shown 69:10	59:10 72:18
78:17 79:6, 9	112:5 127:4	108:16 118:12	130:10 136:3
174:9	135:4 139:10	212:15	simply 86:19
sessions 79:3	158: <i>19</i> 161: <i>1</i>	shows 42:5	115:17, 18
set 28:12 52:16	162:5, 7 168:10,	50:1 91:2, 4	119:5 122:2, 4,
104:18 109:1			

5 145:1 148:9
181:9
Sin 124:16
single 13:18
14:3 124:5
142:9 154:20
172:16, 22
175:17
sit 75:19
167:19 180:3
site 25:8 44:18
59:12 74:20
76: <i>1</i> 159: <i>1</i>
197:3 210:12
sites 24:4
72:21 74:13
75:2 101:1
154:12 156:18
situation 88:20
161:20 196:2
situations 24:9
73:1 85:17
167:1, 12 188:12
six 124:1
six-plus 163: <i>1</i>
size 55:18
159: <i>16</i>
skilled 146: <i>13</i>
162: <i>13</i>
skin 88:2, 9
slide 72:16
73:6, 18 74:14,
17, 18 80:5
slides 77:10
slideshow 76:21
slight 133:8
slightly 49:2
slowly 11:15
81:16 114:9
small 25:15
27:19 29:16
21.19 23.10

30:1 60:3
87: <i>13</i> 143:2 <i>1</i>
144:1, 2, 4, 7
146:7, 19, 20
157:16 158:4
172:21 175:3, 7,
12 176:12, 18
177:22 178:10
179:5 182:3
184:2 186:20
187: <i>1</i> 188:2, <i>3</i> ,
8 194:2 197:14,
20 198:22
199:3 200:3
201:10 203:14,
17, 20 204:7
210:20
smaller 20:12
175:5
smokers 188: <i>15</i>
SOCIAL 3:2
DOCHIL 3.2
12:1, 9 47:1, 3
12:1, 9 47:1, 3 sodium 84:15 soft 147:8
12:1, 9 47:1, 3 sodium 84:15
12:1, 9 47:1, 3 sodium 84:15 soft 147:8
12:1, 9 47:1, 3 sodium 84:15 soft 147:8 softy 147:8
12:1, 9 47:1, 3 sodium 84:15 soft 147:8 softy 147:8 sold 172:16
12:1, 9 47:1, 3 sodium 84:15 soft 147:8 softy 147:8 sold 172:16 solicit 44:15 SOLICITOR 2:15 17:4 26:4,
12:1, 9 47:1, 3 sodium 84:15 soft 147:8 softy 147:8 sold 172:16 solicit 44:15 SOLICITOR
12:1, 9 47:1, 3 sodium 84:15 soft 147:8 softy 147:8 sold 172:16 solicit 44:15 SOLICITOR 2:15 17:4 26:4, 6 37:9 43:1, 3 50:17, 19 56:7,
12:1, 9 47:1, 3 sodium 84:15 soft 147:8 softy 147:8 sold 172:16 solicit 44:15 SOLICITOR 2:15 17:4 26:4, 6 37:9 43:1, 3 50:17, 19 56:7, 10 64:6, 8
12:1, 9 47:1, 3 sodium 84:15 soft 147:8 softy 147:8 sold 172:16 solicit 44:15 SOLICITOR 2:15 17:4 26:4, 6 37:9 43:1, 3 50:17, 19 56:7, 10 64:6, 8 71:14, 16 77:8
12:1, 9 47:1, 3 sodium 84:15 soft 147:8 softy 147:8 sold 172:16 solicit 44:15 SOLICITOR 2:15 17:4 26:4, 6 37:9 43:1, 3 50:17, 19 56:7, 10 64:6, 8 71:14, 16 77:8 98:2 103:8
12:1, 9 47:1, 3 sodium 84:15 soft 147:8 softy 147:8 sold 172:16 solicit 44:15 SOLICITOR 2:15 17:4 26:4, 6 37:9 43:1, 3 50:17, 19 56:7, 10 64:6, 8 71:14, 16 77:8 98:2 103:8 116:15 217:14
12:1, 9 47:1, 3 sodium 84:15 soft 147:8 softy 147:8 sold 172:16 solicit 44:15 SOLICITOR 2:15 17:4 26:4, 6 37:9 43:1, 3 50:17, 19 56:7, 10 64:6, 8 71:14, 16 77:8 98:2 103:8 116:15 217:14 Solicitors 203:8
12:1, 9 47:1, 3 sodium 84:15 soft 147:8 softy 147:8 sold 172:16 solicit 44:15 SOLICITOR 2:15 17:4 26:4, 6 37:9 43:1, 3 50:17, 19 56:7, 10 64:6, 8 71:14, 16 77:8 98:2 103:8 116:15 217:14 Solicitors 203:8 Solicitor's 17:2
12:1, 9 47:1, 3 sodium 84:15 soft 147:8 softy 147:8 sold 172:16 solicit 44:15 SOLICITOR 2:15 17:4 26:4, 6 37:9 43:1, 3 50:17, 19 56:7, 10 64:6, 8 71:14, 16 77:8 98:2 103:8 116:15 217:14 Solicitors 203:8 Solicitor's 17:2 32:22 33:1
12:1, 9 47:1, 3 sodium 84:15 soft 147:8 softy 147:8 sold 172:16 solicit 44:15 SOLICITOR 2:15 17:4 26:4, 6 37:9 43:1, 3 50:17, 19 56:7, 10 64:6, 8 71:14, 16 77:8 98:2 103:8 116:15 217:14 Solicitors 203:8 Solicitor's 17:2 32:22 33:1 37:7 77:6
12:1, 9 47:1, 3 sodium 84:15 soft 147:8 softy 147:8 sold 172:16 solicit 44:15 SOLICITOR 2:15 17:4 26:4, 6 37:9 43:1, 3 50:17, 19 56:7, 10 64:6, 8 71:14, 16 77:8 98:2 103:8 116:15 217:14 Solicitors 203:8 Solicitor's 17:2 32:22 33:1

110:21 111:2
116:17 121:2, 4
139:20 140: <i>1</i>
173:18, 21
203:11 217:17
solution 76:7
99:10
solutions 54:19
76:16 82:12, 13
99:2, 8 114: <i>14</i>
solved 61:22
somebody 75:11
181:8
somebody's
181: <i>15</i>
someone's 69: <i>13</i>
son 128:5
soon 89:20
sooner 213:8
sophisticated
142:11 187:20
188: <i>4</i>
Sorini 5:2
174: <i>19</i> , <i>21</i>
179:18 180:1, 2,
4, 22 182:17, 19,
21 183:7, 14, 16
184: <i>12</i> , <i>15</i> , <i>17</i> ,
21 185:2, 10, 12,
<i>19</i> 186:9, <i>12</i> , <i>15</i>
187:8, 12, 19
188: <i>10</i> , <i>14</i>
189: <i>18</i> 190: <i>10</i>
191:22 192:4, 7,
9, 12, 15, 17
193:18, 20, 22
194:2 <i>1</i> 195: <i>10</i> ,
<i>16</i> , <i>19</i> 196: <i>13</i> ,
<i>15</i> , <i>22</i> 197: <i>17</i> ,
<i>21</i> 198: <i>1</i>
199: <i>16</i> , <i>18</i>

200:5, 12, 22 201:3, 6, 8, 10, 15 202:2, 5, 9, 21 203:5, 12 204:1, 11, 18 205:8, 9 **sorry** 24:15 157:3 159:21 169:22 170:2 193:17 202:12, *13* 218:2*1* **sort** 140:13 161:*19* 162:*1* 163:10, 14, 15 165:13 167:3 175:19 183:12 188:19 189:16, 21 190:12, 14, *19*, *21* 193:*1* 195:6, 8 199:2 **sorting** 173:5 **sorts** 191:*14* **sought** 213:7 **sound** 30:15 **sounded** 164:19 189:12 sounds 204:22 source 175:16 **South** 12:12 13:3 52:11 53:19 67:20 131:22 145:11 southeast 96:11, 20 97:4 **SOUTHERN** 3:2 12:1, 8 16:22 51:9, 17 96:12, 18 106:12 southwest 112:2 206:6

space 24.7	cnooking 11.0	specify 22.1	106.10 107.1
space 24:7 76:3 129:7	speaking 11:9 47:6 80:15	specify 22: <i>1</i> 157:8	106: <i>19</i> 107: <i>1</i> 108: <i>12</i> , <i>21</i> , <i>22</i>
179:2 188:9, 19	81:14, 18 82:21		109:1, 12 112:7
spaces 128:15	94:13 128:4	specifying 70: <i>13</i> spent 87: <i>15</i>	113:16 114:10,
188:12	134:5 141:10	128:1, 7 134:7,	18 118:2, 21
Spanish 35:21	152:5 166:4	120.1, / 134./,	120:3, 7, 11
80:5 126: <i>1</i>	205:18 210:15	spikes 34:11, 12	123:12 125:15
136:14		1 -	136:6 142:13
	211: <i>1</i> 219: <i>1</i> , <i>3</i> ,	spoke 212: <i>12</i> spoken 35:20	144:11 145:2
speak 7:18 11:15 32:14	speaks 200:18	87:11 118:16	146:16 148:21
33:19 37:22		126:1	
44:8 45:18	special 30:9		149: <i>12</i> 151: <i>1</i> , <i>5</i> , 9 153:2 157: <i>18</i>
51:15 57:3	specialized	spot 67:7 68:9 spread 199:5	171:13 172:18
	146: <i>12</i> 147: <i>6</i>	spur 42:13 44:9	
65:3, 14 71:6 72:15 81:16	162:18	stability 18:20	177:11, 12, 17, 19, 20 178:3, 12
95:2 111:21		staff 25:16	180:11, 14, 16
	specializing 205:14		· · · · ·
124: <i>11</i> , <i>13</i> 127: <i>15</i> 130: <i>15</i>	SPECIALS	34:5 146:6 staffs 188:3	183:1, 19 186:4
136:12 141:15	4:20 141:17		188:21 190:12,
154:13 159:15	154:14 158:22	stage 54:18 210:6	14, 22 193:2 195:1 206:17,
175:1 213:21			· · · · · · · · · · · · · · · · · · ·
speaker 8:22	specific 7:17 20:2 24:3, 17	staggering 29:21 stakeholders	19, 21, 22 207:4 208:2 209:2, 3
9:3 11:12, 19	· · · · · · · · · · · · · · · · · · ·	149: <i>14</i> 150: <i>12</i>	· · · · · · · · · · · · · · · · · · ·
17:16 26:17	44: <i>18</i> 70: <i>9</i> , <i>18</i> 86: <i>5</i> 104: <i>11</i>		211:9 212: <i>11</i> , 19 214: <i>1</i> , 2
33:13 37:19	109:2 126:6	stakes 66: <i>4</i> stand 61:22	Standards
45:6 51:6	137:21 142:6	stand 01.22 standard 12:16	16: <i>19</i> 21:8
56:18 64:16, 22	149:22 152:17	13:9 16:6	22:11 23:10
72:5, 22 81:15	153:6, 9 155:17	18:14 19:17, 20	25:2 32:19
90:3 94:11	157:5 190:3	20:2, 4, 5 21:6	37:3 41:13, 18,
98:11 101:13	202:10	30:17 31:13, 14	21 42:18 43:22
105:14 111:10,	specifically 14:5	34:8 36:15	58:17 62:9, 16
16 117:3	36:5 130:16	39:1, 2, 3, 6, 20	64:3 70:9, 12
122:20 131:15	151:13 154:17	41:12, 17, 22	87:5 89:7, 19
141:7 174:19	158:7 159:9	42:4, 5, 10 44:3	93:11 97:5, 19
205:10	172:15 176:8	52:22 54:1	103:3 104:18
speakers 8:22	187:21 207:1	55:13 57:15	110:15 114:8
49:10 70:7	213:1, 3 216:5	59:9, 15 60:1	115:21 116:8
80:22 81:4	specificity 32:2	70:13, 19 72:13	117:21 118:12
91:15 137:19	specifics 170:17	95:3 97:12	120:18 123:21
220:13	180:22	99:9, 11 101:15	120.76 123.27
440.13	100.22	104:2, 4, 22	18 150:8
	<u> </u>	104.4, 4, 42	10 130.0

152:16 164:11	121:10 122:22	status 36: <i>3</i>	130:13 136:10
168:7 179:20	131:17 141:8	38:16 68:1	137:5
187:14 189:10	156:8 174:20	75:9 91:20	strengthened
212:1 214:6	175:9 205:11	119:16 126:13	87:6 125:17
215:10	207:1 217:21	130:17, 20 215:4	stress 25:8
star 9:14, 18	stated 27:16	stay 86:9 136:4,	39:19 55:7
26:21 64:20	53:3 86:19, 21	8 140:18 189:2	87:19 101:6
78:11 111:15	157:14 161:5	steadily 84:3	115:2 132:22
219:10	state-level 41:16	steel 28:15	136:16 210:10
start 22:12	97:13	155:12 169:12	213:20
74:4 80:22	statement 62:11	steering 142:17	stressed 138:20
89:21 129:2	174: <i>14</i>	step 12:17 13:9	146:2 <i>1</i> 147:9
150:22 176:5	statements 8:18	49:2 87:7	stressful 91:10
192:2	76:20 131:14	steps 73:2, 3	stretched 146: <i>17</i>
started 45:20	174:7 204:21	130:10 136:3	stretches 167:2
66:2	218:1, 5 219:19	144:13 149:22	strict 177:12
starting 89:15	state-of-the-art	Steve 82:13	stroke 34:17
92:7 128:12	186:2 <i>1</i>	90:1	53:12 67:5
208:6	States 2:4	Steven 4:4	68:2, 12 85:18
starts 59:6	18:13, 22 19:22	81:19 83:4 90:9	86:1, 3 87:20
128:22	29:12 34:12	stomach 67:14	112: <i>11</i> 120: <i>1</i>
state 11:14, 20	36:14 39:1	stood 67:12	209:7, 12, 15, 17
17:17 20:3	40:17 41:12, 16,	stop 75:21	210:6, 19 211:3
26:22 27:3, 22	17, 19, 22 43:16,	92:20 118:19	213:13, 18
29:11, 13 33:14	19, 21 45:17	125:6 172:22	strokes 85:6
35:7 37:20	59:21 69:18	store 100:1	strong 20:4
43:8, 14 44:1	70:5, 8, 10 71:1	121:22 122:3	34:7 39:3
45:7, 11, 22	91:10 92:15	132:8	41:12 42:10
46:1 47:19	95:21 96:11, 12,	stored 200:20	51:15 52:15
48:3, 7, 13, 17	14, 16 97:13	stories 127:10	56:1 57:14
51:7 56:19	99:17 100:21	story 112:8	61:16 62:13
57:19 62:18	143:2 145:7	124:19 134:10	63:12 82:21
64:22 70:11	157:9 166:3	stoves 128:16	86:1 99:9
72:6 81:20	172:17 205:21	strain 114:5	101:14 104:21,
82:11 94:12	215:6	strategies 52:1	22 113:16
97:1, 6 98:12	state's 106:6	58:10 97:7	114:10 115:20
99:21 101:4, 18	Station 141:18	strategy 57:12	120:12 123:12
103:15, 21	Statistics 47:14	strength 41:14	stronger 86:6
105:15 106:3	118:22 129:20	strengthen	strongest 36:18
108:2 <i>1</i> 111: <i>17</i>	135:3, 12	35:11 36:11	106:5 127:8
115:8 117:4			131:9

		1	
strongly 22:6	substantially	sun 100:7	182:8 184: <i>3</i> , <i>21</i>
42:3 89:11	213:5	125:2 129:1	185:22 186:5
133:16 148:16	subtly 209:14	SUNRISE 4:13	189:1 192:19
213:22	successful	117:6 120:22	201:6 203:3
structural 95:7	187:18	supercharging	214:8
142:8, 17	successfully	125:11	surface 88:2, 9
structure 151:8	25:7 59:1	supervision	surpassed 83:22
180:15	sudden 88:16	92:19 93:4	surprised 216: <i>18</i>
structured 166:2	114:22	supervisor	surprising 88:13
Struggling 66:5	suffer 102:6	68:14 89:14	surveillance
106:11	112:21 113:21	147:6 210:12, 16	211:7 215:14, 18
stuck 216:10	126:15	supervisors	surveys 186: <i>1</i>
Studies 69:10	suffered 110:5	46:10 68:17	survive 32:8
study 40:3, 15	suffering 36:2	112:10 115:2	survived 67:15
60:10	130:18 136:1	210:9	susceptibility
stuff 178:5	sufficient 20:3	supplies 135:18	84:6
182:3 204:4, 7	157:17 178:5	supply 146:18	susceptible 85:9
stunt 30:5	sufficiently	support 21:18	suspenders
sub 194:13	151:10 180:17	34:7 36:1	178:20
subcontractors	suggest 190:5	38:19 51:15	sweat 74:5, 7
48:16	suggested 138:7	56:1 57:14	84:11 88:1, 5
subject 148: <i>14</i>	148:5, 19 185:7	66:5 72:12	sweating 84:10
176: <i>11</i>	suggestion	76: <i>15</i> 106: <i>4</i>	87:22 208:11
subjective	195:3, 14	107:2 109:14	209:10
190:13	suggestions 79:2	115:11 126:14	sweltering 67:16
submarine	87:5 138:2, 10,	128:13 130:13	swiftly 114:16
142:10	16 176:21	214:1, 10	Swiss 61:2
submission 8:16	193:9 203:19	supporting	sympathetic
submit 7:6	204:12	109:6 135:19	84:19 85:2, 7
8:17 10:10	suggests 109:12	supports 21:1	symptom 68: <i>1</i>
137:14 150:20	suitable 161:22	22:6 149:4	symptoms 15:2
180:7 182:18	163:10	suppression 85:8	66:12 67:22
202:19 205:1	suite 63:14	Supreme 31: <i>11</i>	68:19 89:8, 12
217:10 219:18	sum 32:6	Sure 27:6 33:8	92:9 112:11
submitted 8:2,	summer 19:9	50:22 55:13	115:3, 5 125:10
15 62:10 77:14	29:19 68:4	64:10 67:3	209:6, 16, 21
120:21 143:16	96:17 122:11	75:19 83:6	210:2, 7, 10, 18
152:18 200:2	206:11	90:5 129:4	212:20 213:3, 5,
substance 108:7	summers 67:16	130:2 136:3	8 214:17
substantial 42:6	118:7	152:7 174:6	syncopal 213: <i>11</i>
		176:14, 17	

syncope 110:5	talk 54:3 147:8	technologies	ten 30:18
209:7	157:4 184:19	58:21	107:4 124:1, 2
system 14:7	189:7 207:16	teenager 134:17	140:15, 17
23:17 60:19	209:3	telemedicine	141:1 149:3
62:19 84:20	talked 191:4	210:2 <i>1</i>	163:2 167:17,
85:2, 8, 22	196:16 197:15	telephone 81:1	20 172:4, 8
89:15 112:19	talking 47:11	tell 75:10	215:5
114:5 148:22	49:11 65:8	113:17 128:20	tend 85:12
204:3 208:22	121:15 150:22	134:22	184:4
210:4 211:6	173:2 180:19	temp 216:12	tens 34:18
214:10, 12	196:12 197:22	Tempe 118: <i>11</i>	tents 24:6
systemic 13:7	talks 147:9	temperate 90:19	term 114:1
99:8	tank 38:15	temperature	terms 23:12, 18
systems 14:16	tape 28:17	13:20 14:17	36:9 48:15
34:15 63:5, 14	29:11 30:14	20:19 21:13, 20	102:4 165:1
86:13 145:22	136:2	25:5, 7 49:16,	218:4
	tardes 131:17	17 50:6 68:6, 7	terrible 99:12
< T >	target 84:1	83:9, 19 88:7	Terrific 86: <i>17</i>
tables 130:5	targeted 15:20	89:6 107:19	test 152:2
tablets 84:18	16:5 49:7	109:1, 6, 7	testified 52:14
tackling 57:8	targeting 61:20	145:2 <i>1</i> 146: <i>1</i>	137:20
tailor 44:18	task 54:20	147:20 155:4,	testifier 71:9
59:11	tasks 148:4, 7	16 216:8	110:22
tailored 14:6	161:9 171: <i>15</i>	temperatures	testifiers 11:18
take 6:10	taxpayers 46:18	14:14 20:20	33:5 93:9
21:17 22:3	teachers 100:9	52:10, 12 68:4	94:10 137:8
39:13 50:3	teaching 82:20	70:2 83:7	testify 11:13
54:5 73:20	team 146:8, 11	87:22 89:4	12:6 42:14
75:18 84:14	154:19	91:3, 5, 22	55:22 81:2 82:5
134:20 135:11	teams 18:9	96:18, 22 100:2	testifying 27:13
144:4, 14 145:3	technical 27:10	108:18 118:7	38:19 180:10
149:22 153:1	61:17 81:10	122:2 136:5	testimonies
156:5 164:20	181:5 185:13	153:17 176:2	151:3
166:10 167:19	196: <i>17</i>	206:5	TESTIMONY
188:13 189:22	technically 192:9	temporarily 86:2	3:1 6:18 8:10,
190:8 207:16 taken 13:14	techniques	temporary 35:9	13 9:1 10:4, 14, 22 11:9 16:16,
41:10 43:19	170: <i>16</i>	36:6 46:11	22 17:6 23:15
75:19 119:9	technological	126:5, 7 130:21	25:3, 22 26:8
takes 91:21	58:20 168:4	136:17 137:21	27:15 32:13
J1.21	187:10	207:1	33:3, 10 37:11
	107.10	201.1	33.3, 10 37.11

20.11.21.42.21	10.12.16.42.4	100.4 100.10	210.12.211.6
38:11, 21 42:21	42:13, 16 43:4,	162:4 163:18	210:13 211:6
43:4, 10, 18	10 44:5, 20, 22	164:4, 6, 7	216:14
50:9, 21 51:12	45:3, 13 50:8,	166:20 168:1,	think 33:20
56:6, 11, 16	11, 13, 20 51:4,	21 172:13	38:15 60:15
57:1 64:15	13 55:22 56:1,	173:7, 9, 17, 20	63:11 72:22
65:19 71:18	5, 10, 15, 17	174:1, 4, 16, 18	76:14 87:9
72:2, 11 80:8,	57:2 62:1, 3	179:17, 19	121:16 132:3
18, 22 81:5, 13,	63:20 64:8, 14	187:5, 8 189:5	138:14 139:6
22 93:13 97:22	65:14 71:5, 8,	196:2 <i>1</i> 197:7	163:8 167:18
103:18 105:11	10, 17 72:2, 4,	199:14 200:17	169:6 173:2 <i>1</i>
110:18 111:9	10, 12 76:19	201:7 202:9, 21	174:13 176:12,
116: <i>11</i> 117: <i>1</i>	77:16, 17, 21	203:1, 2, 10, 12	13, 21 177:8
121:13 123:2	78:1 82:5, 18	204:16 205:3, 8,	179:3 182:1, 10
141:13 150:11,	86:15, 17 89:22	9 214:2, 3, 5	184:4 186:2
18 152:22	90:7 93:6, 8, 10,	215:7 217:4, 7,	187:1 188:20
156:2 171:8, 22	12, 15, 16, 17, 21	11, 13, 16, 19, 22	190: <i>11</i> , <i>17</i>
173:13 200:2	94:1, 7, 8, 15	218:8, 13, 14, 16	191: <i>1</i> , <i>15</i> , <i>17</i>
202:5 217:8	97:14, 16, 18, 21,	219:13 220:5, 8,	192:9, 17, 19
220:6	22 98:4, 10, 17,	11	195:20, 22
testing 72:19	<i>18</i> , <i>20</i> 102:20	thankful 140:2	196:8, <i>15</i> 197: <i>1</i>
76:5	103:2, 5, 9, 11,	Thanks 23:1	202:16 203:21
tests 76:8	<i>17</i> 104:5 105:5,	42:20 121:12	204:1, 9 206:20
Texas 41:18	6, 7, 11, 13, 21	130:6 141: <i>1</i>	209:1 214:19
53:18 72:9	110:11, 12, 14,	thermometer	217:1 219:5
90:18 131:22	<i>17</i> , <i>19</i> 111: <i>1</i> , <i>3</i> ,	187: <i>3</i> 216: <i>11</i>	Third 14:21
text 36:10	9, 20 116:2, 5, 7,	thing 50:4	21:1 31:21
62:17 138:11	10, 12, 16, 18	84:10 120:13	47:8 74:10
texts 138:2	117:1, 8 120:14,	133:10 163:14	83:12 141:16
Thank 11:19	15, 17, 20, 22	192:2 <i>1</i> 194: <i>14</i>	thought 57:4
12:2, 4, 5, 6	121:3, 5 122:11,	208:21 211:21	83:15 153:13
16:12, 15, 21	12, 13, 15, 18	things 11:3	190:16 196:1, 17
17:1, 5, 11, 14,	127:13 131:11,	22:12 23:7	thoughtful 62:12
22 18:1, 3 22:6,	<i>13</i> , <i>16</i> 133: <i>19</i> ,	53:6 74:12	thoughts 23:21
8, 20 24:11, 15,	20 134:1 137:6,	105: <i>1</i> 138:9	195: <i>13</i> 197: <i>18</i>
19 25:10, 17, 18,	10, 17 138:12,	155:15, 19	211:7
22 26:2, 3, 7, 14,	19 139:12, 14,	166: <i>13</i> 173: <i>4</i>	thousand 129:9
16 27:4, 7, 11,	15, 19, 22	178:19 181:22	135:5
15 32:13, 15, 21	140:20 141: <i>14</i>	183:17 186:2	thousands 29:17
33:3, 9, 12, 18	150:1, 3, 7, 10,	188:22 191: <i>14</i>	34:18, 20 123:10
36:20, 22 37:3,	<i>15</i> 154:2 156: <i>1</i> ,	193: <i>15</i> 197: <i>1</i>	threat 123: <i>14</i>
10, 15 38:10	15 160:8, 10, 11		

threatened 100:5 112:10 threatening 125:10 threats 18:20 61:3, 4 117:17
threatening 125:10 threats 18:20 61:3, 4 117:17
125:10 threats 18:20 61:3, 4 117:17
125:10 threats 18:20 61:3, 4 117:17
threats 18:20 61:3, 4 117:17
61: <i>3</i> , <i>4</i> 117: <i>17</i>
three 9:14, 18
26:22 46:22
50:1 64:21
76:11 78:12
87:16 92:7
93:9 102:2
104:7 107:15
111:15 117:14
124:1 133:4
168:7 219:10
threshold 14:3
54:10 59:8
89:10, 13 109:6
thresholds
14: <i>14</i> 21: <i>13</i>
176:3
thrive 136:9
tier 14:5
TIFFANY 2:8
23:8, 9 62:7, 8
164:9, <i>10</i> 189:7,
9
tight 146: <i>3</i>
till 78:19
time 9:4 10:1,
2, 17 16:13, 21
17:6 26:8 33:3,
11 37:5, 10
42:20 43:4
42.20 43.4 44:1 45:5
47: <i>16</i> 50: <i>3</i> , <i>4</i> ,
47.10 50.5, 4, 15, 20 52:5
•
55:22 56:11 57:3 62:2 68:4
70:6 71:12, 17
10.0 /1.12, 1/

75:14, 20, 21
77:3 78:6, 13,
15 79:6, 16
80:9, 18 81:7
82:5 84:7
88:21 89:22
90:3 94:8
97: <i>14</i> 102:2 <i>1</i>
116:2, 3, 10, 18
118:9, 10 125:1
127:3, 14 129:5,
17 131:11
132:14 133:11,
19 137:6
139:16 145:16
147:10 148:5
150:2 167:2, 3
172:22 173:2, 3,
9, 12 176:18
179:14 202:4
204:22 206:7
208:5, 18
209:10 217:7,
19 218: <i>1</i>
219:12 220:6, 16
timely 7:11
timer 80:9, 10
86:20 141:4
times 7:21
36:10 86:21
102:2, <i>6</i> 113: <i>13</i>
133:4 144:17
164:2 <i>1</i> 181:7
timing 81: <i>3</i>
today 6:3, 12,
16 7:3 8:13, 22
10:3 11:11
12:3, 7 17:6
26:1, 8 27:10,
16 32:14 33:3
37:11 38:19

45:13 50:10, 21
52:14 56:6, 11
57:3 64:9 65:7,
8, 14 68:21
71:18 72:15
74: <i>15</i> , <i>19</i> 75: <i>1</i>
74.13, 19 73.1 76.2 77.10
76:2 77:18
79:9 80:15
82:5 83:6
90: <i>14</i> 93: <i>13</i> , <i>15</i> 94:2 97: <i>20</i> , <i>22</i>
98:5 99:5
103:5 110:16,
<i>19</i> 114: <i>14</i>
116: <i>11</i> , <i>18</i>
117:18 118:4,
<i>13</i> 120: <i>19</i>
121: <i>13</i> 123:9
128:4 134:6, 18
137: <i>14</i> , <i>19</i>
138: <i>5</i> 139: <i>16</i>
141: <i>11</i> , <i>15</i>
143:3 150:2, 11,
<i>17, 19</i> 152: <i>14</i>
155:8 173: <i>13</i>
174: <i>3</i> 180: <i>1</i> , <i>6</i> ,
9 188:18
196: <i>11</i> 197: <i>16</i>
202:5 203:13
205:18 217:8,
11 218:5 220:5,
9
today's 10:7
79:20 140:3
217:22
told 67:2
112:11
tolerate 46:13
tomorrow
220: <i>15</i>
44 0. 13

tools 23:3
62:15 63:14
139: <i>1</i>
top 47:19
102:7 215:5
topic 153:7
158:21 194:20
topics 157:2, 4
tort 183:19
191: <i>13</i>
total 57:14
83:12 92:8
touched 45:15
48:6 214:9
touching 48:22
205:3
tow 169:19
towers 24:5
track 84:1
trade 141:2 <i>1</i>
tragedies 99:12
115: <i>18</i>
tragic 181:18
train 55:7
162: <i>16</i>
trained 67:4
82:7 214:18
training 15:1, 7,
10 21:16 22:13,
<i>15</i> , <i>18</i> , <i>19</i> 35: <i>18</i> ,
20 55:11
102: <i>17</i> 115: <i>1</i> ,
<i>13</i> 125:21, 22
126:2 130: <i>14</i>
136: <i>13</i> 138:2 <i>1</i>
147: <i>1</i> , <i>4</i> , <i>6</i>
149:2 172: <i>3</i> , <i>6</i>
173:1 179:8, 9
200:4, 7 209:18
200:4, 7 209:18 211:15 215:22

	1 400 10 400 10	14064001	1 242 24 24 5 7 0
trainings 53:22	139:12 160:16,	119:6 129:1	212:21 216:7, 9
130:9 146:22	19 163:6, 8	183:9	
transcribed	164:1, 5, 7	Tsoukalas 3:14	<u></u>
10:12	tremendous	45:6, 8 50:13	U.S 41:3, 6
transcript 11:4	101:7 105:3	51:4	47:13 87:1
201:21 205:5	trend 206:3	TTP 194:5	118:22 120:12
transformational	trends 113:4	Tuesday 1:14	129:9 142:12
12:15	tricky 139:7	turn 11:12, 17	216:20
transformative	tried 187: <i>17</i>	31:20 38:5	ultimately 46:17
31:8	trigger 13:19,	39:14 44:15	unable 10:5
transit 96:5	20 14:5, 7	62:6 76:21	unacclimatized
Translate 139:8	23:20 32:3	80:19, 20 81:15	14:2 73:14
translated 80:1	49:15, 18 54:10	84:15 85:3	208:3
87:11	59:8, 9 73:16	137:15 152:13	unaware 109: <i>3</i>
translation 23:3	147:20 161:13,	184:18 215:8	unbearable
80:4, 6 139:1	<i>15</i> 196: <i>10</i>	turned 131:14	122:3 125:6
translations	210:3 212:19	Turning 17:7	uncomfortable
23:5 139:3, 9	triggers 20:17,	153:17	135: <i>1</i>
transparent	19 31:21 32:1	turnover 41:1	uncommon
15:20	89:21 109:2	two 11:6 36:10	211:2 <i>1</i>
transportation	145:3 153:1, 3,	41:19 43:11	undercount
124:3 213:14	7, 10 154:11, 14,	45:13, 18 47:18	124:8
treat 153:14	19 156:4, 6, 17	91:21 106:10	undercounted
155:12	Trosclair	107:13 112:22	215:17
treated 28:1	111:10 219:6	113:4 124:2	undercounting
110: <i>1</i>	trouble 65:3	137:15 151:5	217:2
treating 145:17	truck 142:4, 19	163:16 164:16	underestimate
155: <i>1</i>	true 46:11	177:11 178:19	172:2
treatment 65:12	47:21 48:12	180:8, 22 185:8	underlying 69:5
68:13 213:19	122:6	196:13 207:15	underreported
treats 144:18	Trump's 30:14	type 149:7	124:9
TREMAIN 2:12	32:7	206:9	understand
16:18, 19 22:10,	trust 15:11 55:2	types 76:16	19:2 60:2 79:5
11 23:1, 7	trusted 15:9	162:6 166: <i>13</i>	108:5 119:8, 20
24:21 25:20	57:6	typically 85:15	136: <i>14</i> 158: <i>5</i>
32:18 37:2	truth 101:15	159:7 160:3	165:2 167:6
42:18 50:13, 14	try 10:15 169:4	166:7, 13	172: <i>19</i> 192: <i>14</i>
56:4 62:5 64:2	178:11 198:20	169: <i>16</i> 173:6	understandable
71:10 77:2	trying 38:5	182:11 185:16	108:10
78:22 137:16,	55:6 115:18	209:3 211:3	understanding
17 138:19			15:3 74:2

utility 142:6

76:16 79:8
90:13 193:17
understatement
84:4
Understood
27:11 134:3
163: <i>18</i>
undertaken
13:11
undocumented
119: <i>11</i> , <i>17</i> , <i>19</i>
125:18 126:11
undue 7:21
unenforceable
29:14
unenforced
65:18
unexpected
88:17
unfair 101:15
189:16 190:7
unfortunate
73:1, 5
Unfortunately 26:18 64:17
73:19 83:21
84:5 97:3
104:14 111:11
144:3
uniform 13:18
20:4 28:12
45:14 52:7
uninsured 60:16
unintended 35:2
Union 40:3
unions 165:22
unique 149:22
204:10
United 2:4
18:13, 22 36:14
39:1 40:17

41:19, 22 43:16
69:18 70:5
91:10 92:14
95:21 96:11, 12,
<i>14</i> 100:2 <i>1</i>
143:2 145:6
166:3 172:17
205:21 215:6
University 19:2
91:2 108:15
unknown 54:21
159:7 160:2
unleashing
30:16
unmute 80:19,
20 81:1, 9
unmuted 82:14
unnecessary 109: <i>17</i> 136: <i>1</i>
unpredictability 91:22
unpredictable
91:22 92: <i>16</i>
unprotected
113: <i>16</i>
unquote 214:15
unreasonable
32:5
unresponsive
66:9
unsafe 19: <i>19</i>
87:19 125:19
130:16 136:12
unsuccessful
187: <i>18</i>
updating 46:5
uphold 136:21
uplift 123:20
uplifting 127: <i>10</i>
uploaded 11:5

205.5
205:5
Upper 90:19
uptick 133:8
urban 53:20
urge 14:4 36:8
102: <i>19</i> 104: <i>21</i>
114:16 131:5, 8
136:10 149:11,
13
urged 214:2
urgent 112:6
123:20
urgently 114:13
urges 16:9
21:2 127:7
143: <i>14</i>
urging 19:22
125: <i>14</i>
use 10:9 21:22
23:4 25:4, 13
26:20, 21 64:19,
20 78:10, 11, 15
79:8 108:7
109:6 111:13,
<i>14</i> 139:2 142:5
143:2 154:12,
18 168:22
169: <i>1</i> 170: <i>13</i>
173:2 176:18
187: <i>15</i> 195: <i>11</i>
208:22 212:9
219:8, 10
useful 195:14
uses 51:19 89:6
154: <i>14</i> 163: <i>11</i>
usual 196:20
usually 181:10
188: <i>17</i>
Utah 127:22
128:8

utilization 19:4 utilize 203:17 < V > **vacation** 208:19 vacations 148:1 **vacuum** 60:7 valuable 211:8 **value** 133:7 **valued** 146:8 **values** 137:*3* variation 109:7 **varies** 58:1 169:15 **varieties** 155:21 variety 18:9 51:22 144:16 147:18 150:13 162:6 211:12 various 95:7, 13 145:12 164:2 198:15 vary 41:14 158:9 **varying** 14:18 156:6, 17 vast 101:18 132:9 **vastly** 28:5 **Vegas** 105:22 108:16 **vehicle** 213:*15* vehicles 24:6 142:16, 20 ventilated 128:15 **verbal** 10:15 verbalize 10:19 verification

14:13	vulnerabilities	151:15, 21	217:21
veritable 29:18	13:8	152:7, 9, 12	wanting 79:3
versed 209:19	vulnerability	160:14 164:8	wants 65:13
version 36:18	47:1, 3	168:3 171:5	181: <i>15</i>
41:16 131:9	vulnerable	173:8 179:19,	warehouse 13:4
165:10	13:17, 21 14:6,	20 180:3, 5	warehousing
versus 60:8	19 21:5 28:9	182:14, 18, 20	124:3
169:2 170:2 <i>1</i>	31:4 35:11	183:3, 9, 15	warm 28:14
186:11	36:5, 12 46:21	184:7, 13, 16, 18	87:1 89:4
vertigo 110:2	47:9 53:2, 10,	186:10, 13	143:9 176: <i>1</i>
vessels 88:8	11 61:9 69:7	187:7, 9 189:6	warming 92:17
vests 107:18	73:16 95:17	199:19, 21	106:10
video 17:20	113:15 115:10	201:9, 16 202:4,	warms 88:4
124:17 147:7	119:9 126:7	13 205:10	warnings 53:16
view 183:22	130:22	214:5, 6, 9	Washington
194:10		215:7 217:6	29:13 40:10
viewers 80:5	< W >	wanna 152:4	waste 100:4
violated 177:18	wage 13:1	201:10	watch 201:20
181:8	20:14 38:18	want 27:14	watching 127:9
violation 191: <i>11</i> ,	40:8, 11 60:15	31:1 48:22	water 14:17
13	102:6	53:15 56:5	49:20 50:2
violations	wages 29:2	60:2 97:21	57:16 58:9, 22
181:22	101:17 102:4	103:4 115:16	59:10 67:9
violence 133:3	wait 122:15	133:6 152:1, 4	68:9, 11 73:9
Virginia 19:1	127:12, 13 185:1	154:3 156:1	75:13 100:5, 11
virtually 23:8	waiting 118:1	157:2 173:9	102:16 107:20
24:22 152:14	walk 50:2	178:20 179:12	112:12 114:19
visa 66:2	167:20	182:8 185:2	118:14, 17
visits 19:8 35:6	walked 191:4	188:15 198:6	125:1 129:4
46:3 101:8	walking 121:22	207:16 217:7,	130:9 136:4
vital 88:13	122:2	21 219:17 220:4	'
95:4 96:7 97:12	walks 192:20	wanted 23:7, 11	147:11 184:9
voices 12:13	wandered 67:13	63:2 72:16	207:18
123: <i>16</i> volume 6:9	WANGDAHL	74: <i>15</i> 137:22 150: <i>15</i> 160:22	wave 92:4 96:14 112:21
33:20 88:10, 12	2:10 93:10, 11 97:18, 19 103:2,	164:11, 22	206:12
voluntary 65:22	3 110:14, 15	165:3 174:15	waves 91:10
126:20	116:7, 8 120:17,	185:4, 11	92:15, 22 113:6
volunteers 112:3	18 137:10, 11	189:11, 19	127:2 206:7
vomiting 213:4	139:14, 15	190:3 194:22	way 59:2 61:22
, 0111111115 213.7	150:7, 8, 22	170.0 171.22	75:4, 8 76:15

104.16.120.17		1 22 210 12	
104:16 128:17	94:15 141:3, 12	22 219:13	whatsoever
136:21 164:19	152:19, 20 161:3	wellbeing 12:14	211:20
170:3 176:16	well 6:18 10:19,	well-being	White 31: <i>1</i>
183:16, 22	20 18:17, 21	97:12 102:14	whole-body
189: <i>14</i> 194: <i>14</i>	22:8 23:15	132:5	21:22
197:9	25:4 28:4	went 100:1	who've 9:15, 18
ways 23:21	34:19 38:7	106:19 170:3	Wickerson 3:18
39:18 49:1	46:17 47:22	we're 6:3	56:18, 20 57:2
104:22 114:11	50:11 51:4	25:14 38:7	63:8 64:12, 14
	· · · · · · · · · · · · · · · · · · ·		
		/	
		1	_
113:9 143:4	101:16 103:11	151:7, 9 160:16	WILES 2:16
144:18 145:12	111:8, 22 116:5	164:8 165: <i>13</i>	93:21 98:3, 4
206:5	131:13 138:18	168: <i>14</i> 169: <i>11</i>	103:9 111: <i>1</i>
weather-related	139:4, 6, 11	172:15 176:14,	116: <i>16</i> 121: <i>3</i>
18:22 87:1	144:3 146:20	17 177:18	139:22 173:20
webcam 211:2	150:4 152:11,	179:4 183:9	203:10 204:9,
Webex 9:14, 17	22 156:21	184:5 189:7	12 217:16
11:10 79:22	161: <i>14</i> 163:7	192:18 193:13	William 27:12
80:8, 12 81:6	166: <i>1</i> 167: <i>12</i>	200:22 201:5,	willing 79:2
219:8	170:18, 20	17 215:8 217:2	willingness 74:3
website 7:9	171: <i>1</i> 172: <i>11</i>	219:3, 16	window 80:13
176:10	174:5, 12 177:7,	west 90:11	120:10
week 53:15	<i>15</i> 183:9 184:2	wet 20:18 25:5,	winter 155:2, 5
58:15 92:15	186:6, 10	7	wisdom 123:8
122:10 161:14	188:18 191:3, 8	We've 23:15	wish 8:4 9:12,
212:13	192:2 194:5, 19	53:11, 18 55:8	16, 21 13:11
weeks 11:6	197:2 <i>1</i> 199: <i>14</i>	63:17 76:8	17:20
52:10 91:21	200:21 201:14,	79:9 83:22	withdraw 144:9
103:18 201:22	<i>19</i> 203: <i>3</i> 204: <i>3</i> ,	103:19 118:10	149: <i>11</i>
205:5	21 206:14	135:2 151:2	withdrawn
weighs 112:8	207:17 208:16,	157:13 180:9	32:13
weight 69:12	20 209:14, 19	182:8, <i>21</i> 193:6,	withhold 151:12
welcome 10:9	210:4 211:6	9 214:11	witness 8:10
16:7 56:22	213:1 216:20,	215:10, 13	9:6, 11, 13 10:6
		· ·	17:5 33:2 37:1,
206:5 weather-related 18:22 87:1 webcam 211:2 Webex 9:14, 17 11:10 79:22 80:8, 12 81:6 219:8 website 7:9 176:10 week 53:15 58:15 92:15 122:10 161:14 212:13 weeks 11:6 52:10 91:21 103:18 201:22 205:5 weighs 112:8 weight 69:12 welcome 10:9	131:13 138:18 139:4, 6, 11 144:3 146:20 150:4 152:11, 22 156:21 161:14 163:7 166:1 167:12 170:18, 20 171:1 172:11 174:5, 12 177:7, 15 183:9 184:2 186:6, 10 188:18 191:3, 8 192:2 194:5, 19 197:21 199:14 200:21 201:14, 19 203:3 204:3, 21 206:14 207:17 208:16, 20 209:14, 19 210:4 211:6	168:14 169:11 172:15 176:14, 17 177:18 179:4 183:9 184:5 189:7 192:18 193:13 200:22 201:5, 17 215:8 217:2 219:3, 16 west 90:11 wet 20:18 25:5, 7 We've 23:15 53:11, 18 55:8 63:17 76:8 79:9 83:22 103:19 118:10 135:2 151:2 157:13 180:9 182:8, 21 193:6, 9 214:11 215:10, 13	103:9 111:1 116:16 121:3 139:22 173:20 203:10 204:9, 12 217:16 William 27:12 willing 79:2 willingness 74:3 window 80:13 120:10 winter 155:2, 5 wisdom 123:8 wish 8:4 9:12, 16, 21 13:11 17:20 withdraw 144:9 149:11 withdrawn 32:13 withhold 151:12 witness 8:10 9:6, 11, 13 10:6

10 43:4 50:20	115:7 121:18	17 211:4, 18, 19	16, 18, 20, 21
56:11 64:8	123:15 124:11	213:3 216:11	97:1, 9, 12
77:9 90:8	125:4 128:13,	workers 12:18,	99:11 100:1, 4,
110:13 140:22	19 129:5, 6, 17	22 13:1, 3, 16,	7, 8, 9, 11, 18, 22
160:15 173:19	130:1 132:15	20 14:1, 10	101:2, 5, 16, 19,
214:4	133:11 134:9,	15:1, 15, 18	21 102:2, 3, 10,
witnesses 7:20	10, 12, 15, 19, 21	16:12 18:12, 16,	16, 20 104:3, 13
8:4 9:8 10:5	135:9 137:1, 4	20 19:14, 19	108:20 110:6
17:8 137:9	141:16 143:20	20:1, 6, 13 21:2,	112:1 113:3, 11,
140:6 219:17	145: <i>1</i> 148: <i>1</i>	4, 17 22:16	21 114:4, 12, 22
witness's 10:4	149:13 150:1	24:2 28:1, 2, 9,	115:1, 4, 22
women 69:9, 10	153:19 154:12	14, 15, 16 29:2	117:22 118:2,
88:16 95:22	156:18 158:13	32:2, 3 34:9	15, 16, 22 119:4,
96: <i>1</i>	159: <i>1</i> , <i>13</i>	35:2, 9, 14 36:2,	11, 13, 14, 17, 21
wonder 62:22	162:20 163:20	7, 14, 16 38:18	120:4 121:16
161: <i>10</i> 196: <i>6</i>	170:6 192:2 <i>1</i>	39:8, 13, 19, 21	122:4, 9 123:13
wonderful 73:9	206:16 211:9	40:1, 2, 4, 5, 6, 8,	124:1, 2, 3
wondering	218:4	11, 15, 19, 20	125:5, 9, 18, 19
151:7 154:10,	workday 66:21	41:22 42:6, 11	126:5, 7, 9, 11,
13 157:20	85:16	43:17, 20 44:4,	15 127:3, 12
161:20 163:10	worked 19: <i>1</i>	12, 15 46:11	129:8, 9, 10, 16
wooden 66:4	55:5 104:7	48:18 49:5, 13,	130:14, 18, 21
worded 189: <i>15</i>	109:21 117:14	22 50:2 51:20	131:1, 10 132:1,
words 7:13	128:8, 14	52:2, 9, 13, 18,	5, 7, 10, 12, 18
word's 170:14	134:13, 16	20 53:1, 19	133:4, 5, 18
WORK 1:11	worker 15:12,	55:2, 7, 9, 12, 20	135:5, 6, 14
6:7 12:12 24:4	18 18:18, 19	57:15 58:2, 7,	136:3, 7, 11, 13,
25:8 29:6, 8	21:7, 16 35:13	19 59:4, 14	18 137:22
34:14, 22 38:21	39:9, 15 40:19,	60:15, 18 61:11	138:3, 8 148:14
40:21 44:18	22 42:8 45:12	62:14 65:10, 19	149:5 164:20
47:15 49:21	54:17, 19, 20	67:3 69:8	205:21 206:4,
54:12 55:15	66:1, 4, 9 73:20	70:10, 17, 20	15, 20, 22 207:1,
65:16 66:2, 17	92:8 94:19	71:4 73:10	10, 21 208:1, 4,
72:21 74:5, 13	104:17, 20	74:4 75:1	16 210:3, 10, 11
75:8, 15, 16, 21	106:9 109:10	82:22 84:6	211:9, 11, 12, 15,
76:1 79:18	112:9 115:12	85:13, 15 86:7,	17 212:5, 7, 15,
85:14 92:12	119:3 125:17	8, 9, 15 87:21	17, 20, 22 213:9
95:2, 4, 5 97:2	128:5 133:9, 17	89:16 91:19	214:13, 14
99:15 100:8, 19	146:13 149:10	92:2, 3, 6, 12	215:16 216:20
104:8 107:17	166:12 170:12	93:2 95:10, 14,	218:4
112:2, 3, 4	190:16 210:5,	17 96:3, 4, 6, 10,	workflows 59:2

workforce 31:9	works 59:11		117:14 128:1
35:20 74:21	131:4 164:19	< Y >	134:14 181:17
76:10, 18 106:7	166:7 186:10	yard 100:9	yellow 75:6
113:12 116:4	204:3	yards 67:14	Yep 182:17, 19
126: <i>1</i> 146: <i>14</i>	workspaces	Yeah 43:15	185:10 192:15
148:13 165:19	49:11, 12	44:13 138:12,	195:16 200:12
207:8	World 69:22	13 139:5, 6, 7	203:5
working 38:16	72:22 76:6, 8	140:19 152:3	yesterday 59:21
46:8 47:13, 16	83:22 84:3	155:8 160:7	118:8 122: <i>1</i>
48:7, 20 53:4,	142:13	166:17, 20	young 85:13
21 54:6 66:19,	worldwide	180:22 182:2 <i>1</i>	110:4 113:21
20 68:3 69:9,	142: <i>14</i>	183: <i>14</i> 185:2,	youth 117:5, 6,
10 73:15 75:1	worry 11: <i>1</i>	14 186:9, 12, 15	12
84:13 100:4, 10	Worse 48:13	187:19 189:18	YouTube 80:5
107:21 108:2	131:3 132:16	190:10 192:7,	201:17, 20 205:4
117:20 121:20	135:2	12, 17 193:18	Yuma 124:19
125:7 128: <i>1</i> , <i>3</i> ,	worsen 69:1	195:19 196:15,	127:11
6 131:7, 19, 21	97:6	18, 22 197:17	
134:7, 14	worsening 84:7	199:17 200:5,	< Z >
154:2 <i>1</i> 169: <i>16</i>	86:3 213:8	22 202:2	zero 169:9
208:17 210:11	worsens 120:9	204:11 209:20	ZOE 2:11
211:4	worst 30:22	216:17 217:1	24:21 25:1
workload	writing 55:19	year 34:19	152:13, 15
107:10 208:15	87:10 138:15	40:6, 18 41:7	184:18 215:8, 9
workplace	184:22 185:3	42:8 45:20	zoned 95:12
20:15 39:16	written 8:2, 15,	46:6 48:13	zones 119:5
42:13 52:4	16 20:7 22:14	60:10 61:13	zoom 181: <i>1</i>
53:14 54:18	24:14 25:3	66:16 67:2	
55:4 58:14	44:7 62:10	68:3, 20 83:8,	
93:1 95:18, 19	107:13 138:15	12 92:17 101:9,	
99:21 119:15	150:17 151:22	10 128:22	
126:11, 18	152:17 154:3	129:17 131:4	
136:6 207:18	157:9 171:8, 22	145: <i>16</i> 149: <i>1</i>	
workplaces	183:2 <i>1</i> 185:7	175:11 206:3, 10	
12:19 14:15	189:12 191:10	years 34:13	
20:13 53:21	207:6, 13 209:18	48:13 52:10	
55:21 104:12	wrong 31:3	55:6 70:3	
118:4 119:22	90:21 188:5	76:11 82:7	
Work-related	202:18	90:12 99:22	
34:10	wrote 176:11	104:7 112:22	