August 4, 2021

James Frederick  
Acting Assistant Secretary of Labor for Occupational Safety and Health  
U.S. Department of Labor  
200 Constitution Avenue NW  
Washington, DC 20210  

Sent via email  

Dear Mr. Frederick:

Public Citizen, Farmworker Justice, United Farm Workers, UFW Foundation, Union of Concerned Scientists, Former Chief of CalOSHA Ellen Widess, and more than 110 organizations and individuals hereby petition the Occupational Safety and Health Administration (OSHA) to issue an Emergency Temporary Standard (ETS) on occupational heat pursuant to section 6(c) of the Occupational Safety and Health (OSH) Act, 29 U.S.C. § 655(c). This petition incorporates the petition submitted on July 17, 2018 by Public Citizen, Farmworker Justice, United Farm Workers, former OSHA directors Drs. Eula Bingham and David Michaels, former CalOSHA director Ellen Widess, U.C. Davis heat illness prevention expert Dr. Marc Schenker, 131 other organizations and 89 other individuals requesting OSHA to initiate a rulemaking process to protect outdoor and indoor U.S. workers from occupational exposure to excessive heat. The groups submitting this petition for an ETS urge that any emergency federal standard promulgated must include robust requirements for rest, shade, hydration, acclimatization, monitoring, training, and whistleblower protections.¹

Since our petition in 2018, the grave danger that occupational heat poses for U.S. workers has intensified and recent state developments, as well as new research, provide further compelling evidence that a standard is necessary to protect workers from such danger. While we welcomed the announcement in the Unified Agenda (RIN 1218-AD39) that OSHA intends to examine this issue, the urgent threat millions of workers are facing in the midst of record-breaking and deadly heatwaves requires more immediate action.

To issue an ETS under section 6(c), OSHA must determine that workers are being exposed to a grave danger and that adequate evidence exists that an ETS is necessary to protect workers from such danger. We believe these conditions exist for the following reasons:

1) Two states have found a need to issue emergency temporary standards.

This summer, both Oregon and Washington adopted emergency temporary heat standards. These actions were taken in direct response to the fatal Pacific Northwest heat wave in June 2021. As Andrew Stolffi, director of the Oregon Department of Consumer and Business Services, which includes Oregon OSHA, said, “In the face of an unprecedented heat wave in the Pacific Northwest – and tragic consequences – it is absolutely critical that we continue to build up our defenses against the effects of climate change, including extreme heat events.” He went on to note that “the risks of working in high heat are not going away this, or any, summer.” Speaking about the heat standard that Washington already had in place prior to issuing the new emergency temporary heat standard Gov. Jay Inslee said, “The real impacts of climate change have changed conditions since those rules were first written and we are responding.”

The fact that state regulators are determining that extreme heat is exposing workers to grave danger, and that emergency temporary standards are necessary to protect worker health and safety in these states, should inform OSHA’s determination of the necessity of a federal ETS. This is particularly true considering that Oregon and Washington are certainly not the only states that will face emergency heat conditions in the months ahead—indeed, in July intense heat waves have engulfed the Northern Rockies, High Plains, Gulf Coast, and Mid-Atlantic with stifling triple-digit temperatures. June and July have seen extreme heat in states across the country including Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, North Carolina, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Washington and Wyoming.

2) The new normal of fatal heat waves and record-breaking summers poses a grave danger to workers.

Each year since the submission of our 2018 petition, the accelerating climate crisis has made extreme heat more deadly for more workers across the United States. Climate change is increasing the frequency, intensity and duration of heat waves, hitting urban areas particularly hard. Research shows that extreme

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4 Id.
temperatures are often higher in low-income neighborhoods and neighborhoods with higher Black, Hispanic and Asian populations.\(^9\)

The summer of 2020 saw new heat records set throughout the nation, both record high temperatures and a record number of days at extreme high temperatures,\(^10\) and the summer of 2021 is already shattering these previously unimaginable milestones.\(^11\) Last month was the hottest June in the country’s recorded history,\(^12\) with July on track to continue this trend. At least 67 weather stations from Washington State through New Mexico have recorded their hottest temperatures ever this summer,\(^13\) and California’s Death Valley recently hit the highest reliably recorded temperature on earth.\(^14\)

Catastrophic heat of this kind is deadly. Nearly 800 people are believed to have died in this summer’s Pacific Northwest heat wave.\(^15\) Sadly, this count includes multiple workers who succumbed to heat stroke on the job,\(^16\) —some of those workers labored on farms and in warehouses—and it is no wonder. When workers are forced to labor in extreme temperatures without basic protections, some will die.

It is important to note that extreme outdoor heat also takes a toll on indoor workers. The recent heat wave in the Pacific Northwest strained the ability of ventilation and air-conditioning and power outages made climate control systems useless.\(^17\) As the public didn’t want to use ovens in their own homes, demands on restaurants increased and workers were put under additional strain.\(^18\) Public transportation systems were derailed by the heat, preventing some workers from getting to work and adding to the workload of those that did.\(^19\) A study of California workers’ compensation claims from 2001 to 2018 showed a 10 percent increase in injuries of workers in indoor jobs, such as manufacturing and warehousing, on days when the outdoor temperature was between 95 and 100 degrees.\(^20\)

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12 June 2021 was the hottest June on record for U.S., NOAA (July 9, 2021), https://bit.ly/36EOwLe.


14 Id.

15 Kim Malcolm, John Ryan & Paige Browning, Nearly 800 believed to have died in Northwest heat wave, KUOW NPR (July 12, 2021), https://bit.ly/3kmRdX.


19 Id.

While high temperatures have always been a fatal occupational hazard, the problem is rapidly intensifying. A study of heat-related deaths among construction workers in the U.S. between 1992 and 2016 showed a clear correlation between annual construction worker deaths and increasing mean summer temperatures.\(^{21}\) With new research finding that 37% of heat-related deaths globally are linked to climate change,\(^{22}\) it is clear that occupational heat conditions will grow more and more hazardous as the climate crisis continues to escalate. Even OSHA has stated that “workplace exposure to heat is a significant hazard and will become more critical as the impacts of climate change progress over time.”\(^{23}\)

Given our new normal of deadly, record-breaking heat waves every summer,\(^{24}\) increasing extreme heat days,\(^{25}\) and the tragic death tolls they produce, there is substantial and compelling evidence that occupational heat exposure poses a grave danger to workers pursuant to section 6(c)(1)(A) of the OSH Act.

3) New research has shown that the number of workplace injuries tied to heat has been vastly undercounted.

Newly published research suggests that high temperatures cause many times more outdoor and indoor workplace injuries than official records capture. In fact, records of heat-related injuries and illnesses from OSHA and the Bureau of Labor Statistics (BLS) only reflect heat illnesses, not the injuries that are caused by the effects of heat stress. Heat stress can cause dizziness and problems with balance, reduced cognitive and decision-making capability, muscle fatigue, heavy sweating and other symptoms that can lead to serious or even fatal injuries on the job.\(^{26}\) While the National Institute of Occupational Safety and Health (NIOSH) warns of injuries caused by the effects of heat stress,\(^{27}\) OSHA’s guidance on record-keeping and

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22 A. M. Vicedo-Cabrera, N. Scovronick & A. Gasparriini, The burden of heat-related mortality attributable to recent human-induced climate change, NATURE CLIMATE CHANGE 11 492-500 (2021), https://go.nature.com/3xE5dSK.
required reporting of workplace illnesses and injuries resulting from heat-related hazards only references illnesses caused by excessive heat “such as heat illness, heat stroke, kidney injury and rhabdomyolysis.”

The guidance makes no mention of injuries that may result from heat stress.

An analysis of more than 11 million workers’ compensation injury claims in California from 2001 through 2018 found that hotter temperatures have likely caused about 20,000 additional injuries per year in the state on days when the temperature exceeded 85 degrees Fahrenheit—an extraordinary 300 times the annual number of medically diagnosed, heat-related illnesses recorded by CalOSHA. This also dwarfs BLS estimates of workplace heat illnesses and injuries for the entire country of 4,000 or fewer per year. Indeed, if California’s workers suffer approximately 20,000 heat-related injuries per year, it is reasonable to extrapolate that the number suffered by all U.S. workers is likely in the range of 170,000 heat-related injuries per year, meaning the danger of heat stress is literally orders of magnitude greater than OSHA and BLS records currently indicate.

The study demonstrated that working on days with temperatures between 85 and 90 degrees leads to a five to seven percent increase in same-day injury claims, while a day above 100 degrees leads to a 10 to 15 percent increase. On days when the temperature was in the 80s or above there was an increase in injuries from accidents such as falling from heights, being struck by a moving vehicle, or mishandling dangerous machinery. Such accidents can obviously be fatal or cause long-term or permanent disabilities. While this study only analyzed data on injuries, it is reasonable to assume that current OSHA and BLS records may severely undercount the number of heat-related occupational fatalities suffered by U.S. workers.

This data is consistent with what we know about heat illness. The danger to laborers does not require extreme heat. The heat index is calibrated based on someone “doing light work in comfortable clothes in a shady, breezy area.” This is hardly the case for most outdoor workers. A recent study identified a heat

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29 R. Jisung Park et al., Temperature, Workplace Safety, and Labor Market Inequality.
30 Id.
32 According to BLS, the U.S. civilian labor force as of June 2021 was 162.167 million, approximately 8.58 times larger than California’s civilian labor force as of June 2021 of 18.89 million. Multiplying California’s 20,000 heat-related injuries by 8.58 equals 171,696 estimated heat-related injuries nationally (162.167 million U.S. workers / 18.89 million CA workers x 20,000 CA heat-related injuries = 171,696 heat-related injuries nation-wide). Note that this figure assumes the number of California injuries attributed to hot days is representative of the entire U.S. While the average number of hot days in the U.S. is varied, the climate within California is also greatly varied.
33 Courts have held that, while not necessary, “new information can be a sound basis for an ETS.” Asbestos Info. Ass’n v. OSHA, 727 F.2d 415, 424 (5th Cir. 1984).
34 R. Jisung Park et al., Temperature, Workplace Safety, and Labor Market Inequality, 2.
35 Id. at 3.
36 For example, in 2019, there were 1,612 workplace fatalities attributed to “falls, slips and trips” and “contact with objects or equipment” in the U.S. Table A-5. Fatal occupational injuries by occupation and event or exposure, all United States, 2019, BUREAU OF LABOR STATISTICS, https://bit.ly/3ja2IqD.
37 Lans Rothfusz, The Heat Index “Equation” (or, More Than You Ever Wanted to Know About Heat Index), NATIONAL WEATHER SERVICE (July 1, 1990), https://bit.ly/3C8Y5jN.
index of just 80°F as a critical threshold for outdoor workers, defining the lower end of the range in which 99 percent of injuries and 100 percent of deaths occur.38

The worker’s compensation data from California also show that the workplace injury risks caused by high temperatures are disproportionately borne by low-income workers, with the lowest-paid 20 percent of workers suffering five times as many heat-related injuries as the highest-paid 20 percent.39 This likely reflects the reality that low wage workers are more likely to do jobs that are at higher risk for exposure to excessive heat. Among low-wage workers, and when compared to all other civilian occupations, crop workers in agriculture are 20 times more likely to die due to heat-related causes, and the majority of these deaths are among immigrant workers.40

The expansive scope of potentially deadly or debilitating heat-related injuries demonstrates a grave danger that easily satisfies the requirements of section 6(c)(1)A) of the OSH Act.

4) Recent court rulings have cast doubt on OSHA’s ability to protect workers in the absence of an occupational heat standard.

While OSHA can cite companies for heat exposure violations under its General Duty Clause (GDC), several rulings of the Occupational Safety and Health Review Commission (OSHRC) since 2018 have demonstrated that the lack of a standard hinders OSHA’s ability to hold employers accountable for dangerous heat hazards in the absence of a standard.

In 2019, the Occupational Safety and Health Review Commission (OSHRC) issued a decision in A.H. Sturgill Roofing, Inc., a case involving an employee who died from heat stroke,41 finding that OSHA failed to establish the existence of a hazard under the general duty clause (GDC).42 In so doing, OSHRC noted “the difficulty in addressing this issue in the absence of an OSHA standard.”43 In a concurring opinion, then-Chairperson Heather MacDougall went further, and stated that: “[‘Excessive heat’] is not a cognizable hazard under the [GDC].”44

On July 15, 2020, an OSHRC Administrative Law Judge (ALJ) issued five substantially identical decisions in similar cases in which OSHA alleged the United States Postal Service exposed its employees to unmitigated excessive heat as they delivered the mail. In each case, the ALJ vacated OSHA’s citation, finding that OSHA had not met its burden to establish that a condition in the workplace presented a hazard despite cases involving heat indices as high as 109 degrees and workers being medically

42 Id. at 3.
43 Id. at 8, n. 8.
44 Id. at 24.
diagnosed with heat illnesses.\textsuperscript{45} Similar to \textit{A.H. Sturgill Roofing, Inc.}, the ALJ noted that “without a temperature- or heat index-specific standard, it is difficult for employers to know when heat is ‘excessive,’”\textsuperscript{46} and referenced OSHA’s failure to provide such a standard, noting, “OSHA has been urged to promulgate a heat stress standard since shortly after the [OSH] Act went into effect.”\textsuperscript{47} The ALJ concluded that, under \textit{A.H. Sturgill Roofing Inc.}, and given the absence of a standard, it is “difficult to establish” that excessive heat is a cognizable hazard under the general duty clause.\textsuperscript{48} These cases remain under review by OSHRC, and we support OSHA’s position in that matter.

These cases demonstrate that the lack of a standard makes it difficult for OSHA to address the grave danger of occupational heat stress, and an ETS would allow OSHA to ensure workers are protected from the heat hazards described above pursuant to section 6(c)(1)(B) of the OSH Act.

5) \textbf{An Emergency Temporary Standard will effectively reduce the grave danger of occupational heat illness and injury.}

The recent research on heat-related injuries in California from 2001-2018, found that the increase in injuries on hot days was cut by approximately 30% in the years following California’s issuance of a state occupational heat standard in 2005.\textsuperscript{49} This clearly demonstrates the potential for a federal heat rule to significantly reduce the effects of heat on worker safety and health.

In reviewing emergency temporary standards to determine whether the ETS “is necessary to protect employees from [the] danger,” courts have historically compared six months of exposure to a hazard under the ETS to six months of exposure without the standard in order to evaluate “both the nature of the consequences of exposure, and also the number of workers likely to suffer those consequences.”\textsuperscript{50} Based on the findings from California, it is possible to extrapolate that a federal ETS similar to California’s heat standard could prevent more than 25,000 heat-related injuries during a six month period.\textsuperscript{51} Since California’s limited standard only covers outdoor workplaces and exempts numerous industries from

\textsuperscript{45} Secretary of Labor \textit{v. United States Postal Service, National Association of Letter Carriers (NALC) and National Rural Letter Carriers’ Association (NRLCA)}, OSHRC Docket No. 16-1713; Secretary of Labor \textit{v. United States Postal Service, National Association of Letter Carriers (NALC) and National Rural Letter Carriers’ Association (NRLCA)}, OSHRC Docket No. 16-1813; Secretary of Labor \textit{v. United States Postal Service, National Association of Letter Carriers (NALC) and National Rural Letter Carriers’ Association (NRLCA)}, OSHRC Docket No. 16-1872; Secretary of Labor \textit{v. United States Postal Service, National Association of Letter Carriers (NALC) and National Rural Letter Carriers’ Association (NRLCA)}, OSHRC Docket No. 17-0023; Secretary of Labor \textit{v. United States Postal Service, National Association of Letter Carriers (NALC) and National Rural Letter Carriers’ Association (NRLCA)}, OSHRC Docket No. 17-0279.

\textsuperscript{46} Id.

\textsuperscript{47} Id.

\textsuperscript{48} Id.

\textsuperscript{49} R. Jisung Park et al., \textit{Temperature, Workplace Safety, and Labor Market Inequality}, 5.

\textsuperscript{50} Asbestos Info. Ass’n \textit{v. OSHA}, 727 F.2d 415, 424 (5th Cir. 1984).

\textsuperscript{51} 171,696 heat-related injuries (estimation of annual number of heat-related injuries suffered nationally based on California’s 20,000 injuries) x 0.5 years or 6 months (the official length of an ETS prior to promulgation of a permanent standard) x 0.30 rate of injury curtailment (reduction in injuries attributable to high heat days in the years following California’s issuance of a heat standard) = 25,754 avoided injuries over a 6-month period. Note this figure is not adjusted for seasonality, which might be apt in this case.
implementing high-heat procedures, a strong federal standard covering both outdoor and indoor workplaces could prevent significantly more injuries and fatalities. The high number of preventable heat-related injuries easily demonstrates a necessity for a heat ETS under section 6(c)(1)(B) of the OSH Act.

6) Regulatory action by the states is no replacement for a federal standard.

Because the U.S. lacks a federal heat standard, states in the Pacific Northwest were left to scramble in the wake of the deadly heat wave that baked the region in June. While Oregon and Washington have issued emergency standards to prevent more heat-related fatalities and illnesses, such state-based action is no replacement for a federal standard for several reasons. First, leaving states to reactively put a regulation in place when a heat wave hits leaves workers unprotected from the initial hazard. Once a heat wave has arrived, it is already too late—a standard must be in place in advance of a heat wave to save lives.

Second, OSHA is better equipped to issue a broad heat standard informed by decades of analysis from NIOSH, substantial information from workers and communities most impacted by occupational heat stress, and work begun in response to prior petitions to OSHA submitted during the Obama administration. Indeed, many of the existing state heat standards have significant gaps that leave many vulnerable workers behind. Therefore, OSHA is in the best position to issue a standard that covers all workers who need protection.

Third, the majority of states are not in a position to pursue the kind of belated action Oregon and Washington have taken. Only 22 states have State Plans covering both private sector and state and local government workers. The rest rely on OSHA to create standards. As the climate crisis accelerates, states that have never before had to deal with excessive temperatures, many states without State Plans, will increasingly face deadly heat. Most are simply not prepared for these catastrophes and, in the absence of swift federal action, working people will suffer and die as a result.

Petition Request

With the information set forth here, we petition OSHA to immediately begin a rulemaking procedure to protect U.S. workers from the grave danger of occupational heat exposure with an ETS that includes employer requirements relating to mandatory rest breaks, personal protective equipment, access to shade, access to water, heat acclimatization plans, exposure monitoring, medical monitoring, hazard notification, worker training, heat-related surveillance and record-keeping, and whistleblower protections.

OSHA has published its intent to issue a Request for Information in the development of a permanent heat standard, but the agency already has the information necessary to move forward with both an emergency standard and a proposed final heat standard. NIOSH issued its most recent recommendation to OSHA for a heat exposure standard in 2016, demonstrating both the problem and the solutions in a clear blueprint

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for an OSHA rule. Indeed, OSHA and NIOSH produced an interactive smartphone app for employers and
workers that calculates heat risk and details essential heat precautions based on the 2016 NIOSH
recommendations. OSHA has also been presented with extensive information on this topic in numerous
petitions, including the 2018 petition that this petition for an ETS incorporates.

Far too many workers have already suffered from occupational heat illness and death. Countless more are
at ever-increasing risk. We urge you not to delay any further in providing working people the emergency
protections they so desperately need.

Sincerely,

**Organizations**
AFM, Local 99
Alianza Nacional de Campesinas
Association of Farmworker Opportunity Programs
Association of Western Pulp & Paper Workers
Beyond Toxics
Broome Tioga Green Party
California Institute for Rural Studies
Cannabis Workers Coalition
Cascade Aids Project
Center for Work and Health Research
Cincinnati Interfaith Worker Center
Clackamas County Public Health
Climate Jobs PDX
Committee for Social Justice
Communities and Postal Workers United
ConnectiCOSH
ConnectiCOSH Health Technical
CREA
CRLA Foundation
Earth Action, Inc.
Ecumenical Ministries of Oregon
El Comite de Apoyo a los Trabajadores Agricolas
Episcopal Farmworker Ministry
Equal Rights Advocates
Fair World Project
Families for Climate
Farmworker Association of Florida
Farmworker Justice
Food Chain Workers Alliance
La Cooperativa Campesina de California
Laborers’ Local 483
Marillac Indigent Care Fund
Media Voices for Children
Migrant Clinicians Network
Mountain State Justice

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National Center for Farmworker Health  
National Council for Occupational Safety and Health  
National Farm Worker Ministry  
National Heat Safety Coalition, Korey Stringer Institute  
NJ Work Environment Council  
New Mexico Center on Law and Poverty  
NOFA/Mass  
Northeast Organic Farmers Association of Rhode Island  
Northeast Organic Farming Association - Interstate Council  
Northeast Organic Farming Association of New Hampshire (NOFA-NH)  
Northeast Organic Farming Association of New Jersey (NOFA-NJ)  
Northeast Organic Farming Association of New York  
Northeast Organic Farming Association of Vermont  
Northwest Center for Alternatives to Pesticides  
NW Workers’ Justice Project  
Oregon Center for Public Policy  
Oregon Climate and Agriculture Network  
Oregon Environmental Council  
Oregon League of Conservation Voters  
Oxfam America  
PCUN  
Philadelphia Area Project on Occupational Safety and Health  
Physicians for Social Responsibility AZ Chapter  
Pineros y Campesinos Unidos del Noroeste  
Portland Central America Solidarity Committee (PCASC)  
Portland Jobs with Justice  
Progressive Democrats of America, Tucson, AZ Chapter  
PSR (Physicians for Social Responsibility)  
Public Citizen  
Public Justice Center  
Rural Community Workers alliance  
SafeWork Washington  
Service Employees International Union  
SMOHIT  
Strengthening Sanctuary Alliance  
Teamsters Local Union No. 206  
The CLEO Institute  
The Clinic Internal Medicine  
The Lund Report  
The Northeast Organic Farming Association of Connecticut  
Toxic Free NC  
Union of Concerned Scientists  
United Farm Workers  
United Farm Workers Foundation  
United for Respect  
United Methodist Women  
United Migrant Opportunity Services  
University of Oregon Labor Education and Research Center  
Utility Workers Union of America  
Virginia Clinicians for Climate Action
Virginia Garcia Memorial Foundation
Vision y Compromiso/La red nacional de promotoras y trabajadores comunitarios
We Can Do Better
WisCOSH, Inc.
WNYCOSH
Workers Center of Central New York
Worker Justice Center of NY
Workplace Fairness
Worksafe

**Individuals**
Chris Allen, Arizona Youth Climate Coalition
Dorothy Barth
Maria Elena Castro
Buzz Davis, member, Veterans for Peace in Tucson
Kenneth Deveney, Southern Oregon Climate Action Now
Shannon Foley, IATSE Local 415
Maxine Fookson, RN, American Friends Service Committee- NW Chapter
Juan Franco, Central City Concern
Bill Harris
Stella Heflin
David LeGrande, Retired
Emily Miller, National Farm Worker Ministry
Celeste Monforton
Christine Pontus, Massachusetts Nurses Association
Laura Punnett, University of Massachusetts Lowell
Richard Rabin, Massachusetts Coalition for Occupational Safety and Health
Cora Roelofs, University of Massachusetts Lowell
Nathan Thomas, Northwest Regional Primary Care Association
Theodora Tsongas, PhD, MS, Former Health Scientist in OSHA Health Standards Program
Ellen Widess, Former Chief of CalOSHA
Bob C. Zeigler, Strengthening Sanctuary Alliance (Olympia, WA) Member

cc: Secretary Marty Walsh
    Adam Levinson
    Maureen Ruskin