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# S. 1068

To direct the Occupational Safety and Health Administration to issue an occupational safety and health standard to protect workers from heat-related injuries and illnesses.

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## IN THE SENATE OF THE UNITED STATES

APRIL 12, 2021

Mr. BROWN (for himself, Mr. PADILLA, Mr. MERKLEY, Ms. WARREN, Ms. CORTEZ MASTO, and Ms. BALDWIN) introduced the following bill; which was read twice and referred to the Committee on Health, Education, Labor, and Pensions

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## A BILL

To direct the Occupational Safety and Health Administration to issue an occupational safety and health standard to protect workers from heat-related injuries and illnesses.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE AND FINDINGS.**

4 (a) SHORT TITLE.—This Act may be cited as the  
5 “Asuncion Valdivia Heat Illness and Fatality Prevention  
6 Act of 2021”.

7 (b) FINDINGS.—Congress finds the following:

1           (1) Excessive heat exposure poses a direct  
2 threat to workers and the economy. Climate change  
3 increases this danger, as 19 of the 20 hottest years  
4 on record have occurred since 2001. Rising tempera-  
5 tures are projected to cause an increase in heat-re-  
6 lated workplace injuries and illnesses, a dramatic  
7 loss in labor capacity, and decreased productivity.

8           (2) On average, 3 times as many people die  
9 from extreme heat in the United States each year  
10 than from hurricanes, floods, and tornadoes com-  
11 bined.

12           (3) Heat-related illnesses can arise when high  
13 temperatures rise above the capacity of the body to  
14 dispel heat. Impacts range from comparatively minor  
15 problems such as heat cramps to severe afflictions  
16 such as organ damage, heat exhaustion, stroke, and  
17 death.

18           (4) Heat stress and COVID–19 are individually  
19 dangerous to workers and can interact, making some  
20 work environments especially hazardous. Respiratory  
21 infections, such as COVID–19, and the use of pro-  
22 tective equipment, like face and skin coverings, can  
23 increase susceptibility to heat exhaustion and heat  
24 stroke. Moreover, the symptoms of heat stress and  
25 respiratory illnesses may overlap in ways that exac-

1       erbate the diagnosis and pathophysiology related to  
2       these potentially fatal conditions.

3           (5) The current scientific evidence, rate of vac-  
4       cine production and distribution, racial and socio-  
5       economic inequities in vaccine access, mistrust of  
6       science messengers, and levels of international and  
7       national preparedness, indicate it will take months  
8       to years to achieve herd immunity from COVID–19.  
9       Moreover, only long-term study will reveal if vaccines  
10      sufficiently protect communities from all strains of  
11      this coronavirus. Accordingly, workplaces must con-  
12      tinue to guard against COVID–19 and other com-  
13      municable illnesses well into the future, especially in  
14      high-density workplaces that expose employees to  
15      stressors that include unhealthy levels of heat.

16          (6) Jobs at highest risk of heat stress illness  
17      and death are disproportionately held by Black and  
18      Brown workers, a disparity that reflects the racial  
19      injustice inherent in our economic system.

20          (7) Farmworkers and construction workers suf-  
21      fer the highest incidence of heat illness, but all out-  
22      door and indoor workers employed in excessively hot  
23      and humid environments are at significant risk of  
24      material impairment of health or functional capacity.

1           (8) Asuncion Valdivia was a California farm-  
2 worker who died of heat stroke in 2004 after picking  
3 grapes for 10 straight hours in 105 degree tempera-  
4 tures. Instead of calling an ambulance, his employer  
5 told his son to drive Mr. Valdivia home. On his way  
6 home, he started foaming at the mouth and died.

7           (9) While heat stress is often associated with  
8 outdoor jobs, some indoor workers are also at risk  
9 from dangerously high temperatures. Indoor heat  
10 stress is prevalent in enclosed workplaces without  
11 climate control or adequate ventilation, such as  
12 warehouses and factories, and workplaces with heat-  
13 generating machinery such as steel mills, electrical  
14 utilities, bakeries, commercial kitchens, and laun-  
15 dries.

16           (10) People working in excessive heat suffer di-  
17 minished mental acuity and physical ability, which  
18 increases the risk of accidents. Heat-related injuries  
19 and illnesses increase workers' compensation costs  
20 and medical expenses.

21           (11) The costs of lower labor productivity under  
22 rising temperatures is estimated to reach up to  
23 \$160,000,000,000 in lost wages per year in the  
24 United States by 2090 according to the 2018 Na-  
25 tional Climate Assessment. The drop in productivity

1 decreases income for employers and workers. Global  
2 gross domestic product losses from heat are pro-  
3 jected to be greater than 20 percent by the end of  
4 this century.

5 (12) Every year, thousands of workers become  
6 sick and some die from exposure to heat. Between  
7 1992 and 2017, 815 United States workers died  
8 from heat and almost 70,000 were seriously injured.  
9 These numbers are generally understood to be gross  
10 undercounts because many heat-related illnesses and  
11 deaths are blamed on natural causes.

12 (13) Workers have a legal right to a safe work-  
13 place. The vast majority of heat-related workplace  
14 deaths and illnesses can be prevented by access to  
15 water, rest, and shade. Many employers don't pro-  
16 vide these simple measures for workers according to  
17 the Occupational Safety and Health Administration.

18 (14) Employers often retaliate against employ-  
19 ees if they report or seek assistance due to problems  
20 with heat. Many employees are therefore afraid to  
21 report problems and face increased risk of heat-re-  
22 lated illnesses or death.

23 (15) In the absence of a Federal standard, mul-  
24 tiple branches of the United States Armed Forces—  
25 including the Army, Navy, Marine Corps, and Air

1 Force—have issued heat prevention guidelines, and  
2 several States—California, Washington, and Min-  
3 nesota—have issued heat prevention standards. The  
4 National Institute for Occupational Safety and  
5 Health (“NIOSH”) issued criteria for such a stand-  
6 ard in 1972, updating it in 1986 and 2016.

7 (16) Congress created the Occupational Safety  
8 and Health Administration to ensure safe and  
9 healthful working conditions by setting and enforce-  
10 ing standards pursuant to section 6 of the Occupa-  
11 tional Safety and Health Act of 1970 (29 U.S.C.  
12 655). Employees are exposed to grave danger from  
13 exposure to excessive heat. The Occupational Safety  
14 and Health Administration must develop a standard  
15 to protect workers from the significant risks of heat-  
16 related illness and death.

17 **SEC. 2. OSHA SAFETY STANDARD FOR EXPOSURE TO HEAT**  
18 **AND HOT ENVIRONMENTS.**

19 (a) PROPOSED STANDARD.—Not later than 2 years  
20 after the date of enactment of this Act, the Secretary  
21 shall, pursuant to section 6(b) of the Occupational Safety  
22 and Health Act of 1970 (29 U.S.C. 655(b)), promulgate  
23 a proposed standard on prevention of occupational expo-  
24 sure to excessive heat.

1 (b) FINAL STANDARD.—Not later than 42 months  
2 after the date of enactment of this Act, the Secretary shall  
3 promulgate a final standard on prevention of occupational  
4 exposure to excessive heat that shall—

5 (1) provide no less protection than the most  
6 protective heat prevention standard adopted by a  
7 State plan that has been approved by the Secretary  
8 under section 18 of the Occupational Safety and  
9 Health Act of 1970 (29 U.S.C. 667) and, at a min-  
10 imum, include the requirements described in section  
11 3; and

12 (2) be effective and enforceable in the same  
13 manner and to the same extent as any standard pro-  
14 mulgated under section 6(b) of the Occupational  
15 Safety and Health Act of 1970 (29 U.S.C. 655(b)).

16 (c) INTERIM FINAL STANDARD.—

17 (1) IN GENERAL.—If the proposed standard de-  
18 scribed in subsection (a) is not promulgated within  
19 2 years after the date of enactment of this Act, the  
20 Secretary shall promulgate an interim final standard  
21 on prevention of occupational exposure to excessive  
22 heat not later than 2 years and 60 days after such  
23 date of enactment—

24 (A) to require covered employers to develop  
25 and implement a comprehensive workplace ex-

1           cessive heat prevention plan to protect covered  
2           employees from excessive heat that may lead to  
3           heat-related injuries and illnesses; and

4           (B) that shall, at a minimum—

5           (i) provide no less protection than the  
6           most protective heat prevention standard  
7           adopted by a State plan that has been ap-  
8           proved by the Secretary under section 18  
9           of the Occupational Safety and Health Act  
10          of 1970 (29 U.S.C. 667);

11          (ii) establish requirements for covered  
12          employers with respect to—

13           (I) exposure limits that trigger  
14           action to protect covered employees  
15           from heat-related illness;

16           (II) hydration;

17           (III) scheduled and paid rest  
18           breaks in shaded or climate-controlled  
19           spaces;

20           (IV) an acclimatization plan;

21           (V) exposure monitoring, and  
22           other measures to prevent exposure to  
23           heat above safe limits;

24           (VI) covered employee and super-  
25           visor training;



- 1 (VII) hazard notification;
- 2 (VIII) an emergency medical re-
- 3 sponse plan;
- 4 (IX) heat-related surveillance rec-
- 5 ordkeeping; and
- 6 (X) procedures for compensating
- 7 covered employees paid on a piece rate
- 8 basis for required heat-related rest
- 9 breaks;
- 10 (iii) take into consideration the Cri-
- 11 teria for a Recommended Standard: Occu-
- 12 pational Exposure to Heat and Hot Envi-
- 13 ronments published by the National Insti-
- 14 tute for Occupational Safety and Health in
- 15 2016; and
- 16 (iv) include a requirement to protect
- 17 covered employees of covered employers
- 18 from discrimination or retaliation for exer-
- 19 cising the rights of covered employees
- 20 under the interim final standard.

21 (2) APPLICABILITY OF OTHER STATUTORY RE-

22 QUIREMENTS.—The following shall not apply to the

23 promulgation of the interim final standard under

24 this subsection:

1 (A) The requirements applicable to occupa-  
2 tional safety and health standards under section  
3 6(b) of the Occupational Safety and Health Act  
4 of 1970 (29 U.S.C. 655(b)).

5 (B) The requirements of section 553(e) of  
6 chapter 5 and chapter 6 of title 5, United  
7 States Code.

8 (C) The requirements of the National En-  
9 vironmental Policy Act of 1969 (42 U.S.C.  
10 4321 et seq.).

11 (3) EFFECTIVE DATE OF INTERIM STAND-  
12 ARD.—The interim final standard shall—

13 (A) take effect on a date that is not later  
14 than 30 days after the promulgation of such  
15 standard, except that such interim final stand-  
16 ard may include a reasonable phase-in period  
17 for the implementation of required engineering  
18 controls that take effect after such date;

19 (B) be enforced in the same manner and  
20 to the same extent as any standard promul-  
21 gated under section 6(b) of the Occupational  
22 Safety and Health Act of 1970 (29 U.S.C.  
23 655(b)); and

1 (C) be in effect until the final standard de-  
2 scribed in subsection (b) becomes effective and  
3 enforceable.

4 **SEC. 3. REQUIREMENTS FOR FINAL STANDARD ON PRE-**  
5 **VENTION OF OCCUPATIONAL EXPOSURE TO**  
6 **EXCESSIVE HEAT.**

7 (a) IN GENERAL.—The final standard promulgated  
8 under section 2(b) shall, at a minimum—

9 (1) take into consideration the Criteria for a  
10 Recommended Standard: Occupational Exposure to  
11 Heat and Hot Environments published by the Na-  
12 tional Institute for Occupational Safety and Health  
13 in 2016;

14 (2) establish requirements for covered employ-  
15 ers with respect to—

16 (A) exposure limits that trigger action to  
17 protect covered employees from heat-related ill-  
18 ness;

19 (B) hydration;

20 (C) scheduled and paid rest breaks in  
21 shaded or climate-controlled spaces;

22 (D) an acclimatization plan;

23 (E) exposure monitoring, and other meas-  
24 ures to prevent exposure to heat above safe lim-  
25 its;

1 (F) covered employee and supervisor train-  
2 ing;

3 (G) hazard notification;

4 (H) medical monitoring;

5 (I) an emergency medical response plan;

6 (J) heat-related surveillance recordkeeping;

7 (K) procedures for compensating covered  
8 employees paid on a piece rate basis for re-  
9 quired heat-related rest breaks; and

10 (L) a heat prevention plan; and

11 (3) include the requirements described in sub-  
12 section (b) with respect to covered employers.

13 (b) REQUIREMENTS.—The final standard promul-  
14 gated under section 2(b) shall, with respect to covered em-  
15 ployers, include the following:

16 (1) HEAT ILLNESS PREVENTION PLANS.—

17 (A) IN GENERAL.—A covered employer  
18 shall develop, implement, and maintain an ef-  
19 fective, written excessive heat illness prevention  
20 plan for covered employees of the covered em-  
21 ployer, which shall—

22 (i) for all aspects of the plan, be de-  
23 veloped and implemented with the mean-  
24 ingful participation of such covered em-  
25 ployees and, where applicable, representa-

1 tives (including collective bargaining rep-  
2 resentatives) of such covered employees;

3 (ii) be tailored and specific to hazards  
4 in the covered workplace;

5 (iii) be in writing, in English and in  
6 the language understood by a majority of  
7 such covered employees, if such language is  
8 not English; and

9 (iv) be made available, upon request,  
10 to such covered employees, representatives  
11 (including collective bargaining representa-  
12 tives) for such covered employees, and the  
13 Secretary.

14 (B) PLAN CONTENT.—Each plan required  
15 under subparagraph (A) shall include proce-  
16 dures and methods for the following:

17 (i) Initial and regular monitoring of  
18 covered employee exposure to determine  
19 whether covered employees are exposed to  
20 excessive heat.

21 (ii) Provision of water, paid rest  
22 breaks, and access to shade or cool-down  
23 areas.

24 (iii) Emergency response.

25 (iv) Acclimatization.

1 (v) Hazard prevention applying prin-  
2 ciples of the industrial hygiene hierarchy of  
3 controls of the National Institute for Occu-  
4 pational Safety and Health, including, as  
5 appropriate—

6 (I) engineering controls that may  
7 include isolation of hot processes, iso-  
8 lation of covered employees from  
9 sources of heat, local exhaust ventila-  
10 tion, shielding from a radiant heat  
11 source, insulation of hot surfaces, and  
12 the provision of air conditioning, cool-  
13 ing fans (including cooling mist fans),  
14 evaporative coolers, and natural ven-  
15 tilation;

16 (II) administrative controls that  
17 limit exposure to a hazard by adjust-  
18 ment of work procedures or work  
19 schedules, which may include accli-  
20 matizing covered employees, rotating  
21 covered employees, scheduling work  
22 earlier or later in the day, using work-  
23 rest schedules, reducing work inten-  
24 sity or speed, changing required work  
25 clothing, and using relief workers; and

1 (III) personal protective equip-  
2 ment which may include water-cooled  
3 garments, air-cooled garments, reflec-  
4 tive clothing, and cooling vests.

5 (vi) Coordination of risk assessment  
6 efforts, plan development, and implementa-  
7 tion of the plan with other employers who  
8 have covered employees who work at the  
9 covered workplace.

10 (vii) Compensating covered employees  
11 paid on a piece rate basis for required  
12 heat-related rest breaks.

13 (2) TRAINING AND EDUCATION.—

14 (A) EMPLOYEE TRAINING.—A covered em-  
15 ployer shall provide annual training and edu-  
16 cation to covered employees who may be ex-  
17 posed to high heat levels, which shall cover the  
18 following topics:

19 (i) Identified heat illness risk factors.

20 (ii) Personal factors that may increase  
21 susceptibility to heat-related illness.

22 (iii) Signs and symptoms of heat-re-  
23 lated illness.

24 (iv) Different types of heat illness.

1 (v) The importance of acclimatization  
2 and consumption of liquids.

3 (vi) Engineering control measures.

4 (vii) Administrative control measures.

5 (viii) The importance of reporting  
6 heat-related symptoms being experienced  
7 by the covered employee or another covered  
8 employee.

9 (ix) Recordkeeping requirements and  
10 reporting procedures.

11 (x) Emergency response procedures.

12 (xi) Covered employee rights.

13 (B) SUPERVISOR TRAINING.—In addition  
14 to the training and education required in sub-  
15 paragraph (A), training and education shall be  
16 provided annually to covered employees of the  
17 covered employer who are supervisors that shall  
18 cover the following topics:

19 (i) The procedures a supervisor is re-  
20 quired to follow under this Act.

21 (ii) How to recognize high-risk situa-  
22 tions, including how to monitor weather re-  
23 ports and weather advisories, and not as-  
24 signing a covered employee to situations



1 that predictably compromise the safety of  
2 the covered employee.

3 (iii) The procedures to follow when a  
4 covered employee exhibits signs or reports  
5 symptoms consistent with possible heat ill-  
6 ness, including emergency response proce-  
7 dures.

8 (C) GENERAL TRAINING REQUIRE-  
9 MENTS.—The education and training provided  
10 under this paragraph to covered employees of  
11 the covered employer shall meet the following:

12 (i) In the case of such a covered em-  
13 ployee whose job circumstances have  
14 changed, within a reasonable timeframe  
15 after such change of job circumstances,  
16 education and training shall be provided  
17 that shall be—

18 (I) in addition to the education  
19 and training provided under clause  
20 (ii), subparagraph (A), and, if applica-  
21 ble to such covered employee, sub-  
22 paragraph (B); and

23 (II) applicable to such change of  
24 job circumstances.

1           (ii) Applicable education and training  
2 shall be provided for each new covered em-  
3 ployee prior to the job assignment of such  
4 covered employee.

5           (iii) The education and training shall  
6 provide such covered employees opportuni-  
7 ties to ask questions, give feedback, and  
8 request additional instruction, clarification,  
9 or other follow-up.

10          (iv) The education and training shall  
11 be provided in-person and by an individual  
12 with knowledge of heat illness prevention  
13 and of the plan of the covered employer  
14 under this section.

15          (v) The education and training shall  
16 be appropriate in content and vocabulary  
17 to the language, educational level, and lit-  
18 eracy of such covered employees.

19          (3) RECORDKEEPING.—Each covered employer  
20 shall—

21           (A) maintain at all times—

22           (i) records related to each plan of the  
23 covered employer under paragraph (1), in-  
24 cluding heat illness risk and hazard assess-

1           ments, and identification, evaluation, cor-  
2           rection, and training procedures;

3                 (ii) data on all heat-related illnesses  
4           and deaths; and

5                 (iii) data on environmental and phys-  
6           iological measurements related to heat; and

7           (B) make such records and data available,  
8           upon request, to covered employees and their  
9           representatives (including collective bargaining  
10          representatives) for examination and copying in  
11          accordance with section 1910.1020 of title 29,  
12          Code of Federal Regulations (as such section is  
13          in effect on the date of enactment of this Act).

14          (4) WHISTLEBLOWER PROTECTIONS.—

15                 (A) POLICY.—Each covered employer shall  
16          adopt a policy prohibiting any person (including  
17          an agent of the covered employer) from dis-  
18          criminating or retaliating against any covered  
19          employee for—

20                         (i) exercising the rights of the covered  
21                         employee under this Act; or

22                         (ii) reporting violations of the stand-  
23                         ard to a Federal, State, or local govern-  
24                         ment.

1 (B) PROHIBITION.—No covered employer  
2 shall discriminate or retaliate against any cov-  
3 ered employee for—

4 (i) reporting a heat-illness-related con-  
5 cern to, or seeking assistance or interven-  
6 tion with respect to heat-related health  
7 symptoms from, the covered employer,  
8 local emergency services, or a Federal,  
9 State, or local government; or

10 (ii) exercising any other rights of the  
11 covered employee under this Act.

12 (C) ENFORCEMENT.—This paragraph shall  
13 be enforced in the same manner and to the  
14 same extent as any standard promulgated  
15 under section 6(b) of the Occupational Safety  
16 and Health Act of 1970 (29 U.S.C. 655(b)).

17 **SEC. 4. DEFINITIONS.**

18 In this Act:

19 (1) COVERED EMPLOYEE.—The term “covered  
20 employee” includes an individual employed by a cov-  
21 ered employer.

22 (2) COVERED EMPLOYER.—The term “covered  
23 employer”—

24 (A) means an employer that employs an  
25 individual to work at a covered workplace; and

1 (B) includes a contractor, subcontractor, a  
2 temporary service firm, or an employee leasing  
3 entity.

4 (3) COVERED WORKPLACE.—The term “covered  
5 workplace” includes a workplace with occupational  
6 exposure to excessive heat.

7 (4) EMPLOYER.—The term “employer” has the  
8 meaning given the term in section 3 of the Occupa-  
9 tional Safety and Health Act of 1970 (29 U.S.C.  
10 652).

11 (5) EXCESSIVE HEAT.—The term “excessive  
12 heat” includes outdoor or indoor exposure to heat at  
13 levels that exceed the capacities of the body to main-  
14 tain normal body functions and may cause heat-re-  
15 lated injury, illness, or fatality (including heat  
16 stroke, heat exhaustion, heat syncope, heat cramps,  
17 or heat rashes).

18 (6) SECRETARY.—The term “Secretary” means  
19 the Secretary of Labor.

○