CEA
Advocating for students and teachers

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January 26, 2022

Douglas L. Parker
Assistant Secretary of Labor for Occupational Safety and Health
U.S. Department of Labor
Occupational Safety and Health Administration
200 Constitution Avenue NW
Washington, DC 20210

Re: Comments regarding ANPRM Heat Injury and Illness Prevention in Outdoor and Indoor Work Settings, Docket Number OSHA-2021-0009

My name is Kate Dias, President of the Connecticut Education Association (CEA). CEA is the Connecticut affiliate of the National Education Association. We represent teachers in over 150 school districts in our state.

We submit testimony today in support of the establishment of rules to protect workers from hazardous temperatures. Connecticut has a state OSHA plan that mirrors Federal OSHA Standards. The Connecticut OSHA plan applies to both private sector and public sector workers.

The Connecticut Department of Agriculture has regulations that limit the maximum air temperature in dog kennels to 90°F (Conn. Regs. § 22-336-19) and require pet shops to be maintained at a minimum of 65° F and a maximum of 78° F Conn. Regs. § 23-344-47). *While we have a maximum temperature standard for dog kennels and pet shops, there is no law or regulation that limits the maximum temperatures for school classrooms. Staff and children in our aging schools feel the impact of higher temperatures and humidity levels that result in moldy and excessively hot working and learning conditions. The result has been increasing Workers Compensation claims, lost school days due to closures, sick days taken by students, and conditions that constrain student learning.*

Among the services CEA provides its tens of thousands of members is representation in their workers' compensation matters. Over the course of at least the last four years, we have seen a spike in the number of cases of educators being exposed to mold and other environmental toxins in their schools and classrooms. The incidents of exposure appear to be increasing as the 2019-2020 school year was by far the worst in terms of the numbers of teachers falling seriously ill due to just showing up for work. In Stamford, Connecticut alone, we counted at least 60 teachers who were suffering, and some who continue to suffer, from the known mold exposures in their schools.

The establishment of acceptable temperature ranges would have the impact of requiring school districts in Connecticut to maintain heating, ventilation, and air conditioning systems that can remedy unhealthy conditions. In Connecticut, this would mean installing air conditioning in the nearly 300 schools that do not have it and repairing hundreds of other outdated or poorly maintained HVAC systems.

We have also spoken with parent groups about the illnesses their children are facing. The reports of credible incidents of illness are staggering and only getting worse. Moreover, in light of the COVID-19 pandemic, we've all learned so much about the role ventilation plays in the spread of infectious disease. Although OSHA does not have cognizance over matters impacting students in schools, it is important to note that ancillary benefits to establishing temperature standards for schools are the health benefits that would accrue to children. As ever the case, the working conditions in schools are also the learning conditions affecting our children.

We appreciate the opportunity to comment on this Advance Notice of Proposed Rule Making. Our comments apply to public school facilities in Connecticut. We provide comments below responding to questions 6, 8, 16, 18, 19, 20, 23, 24, 25, 26, 27, 28, 29, 31, 36, 45, 52, 96, 98, and 111.

Thank you,

Kate Dias
President, Connecticut Education Association

(6) What factors lead to the underreporting of occupational heat-related illness, injuries, and fatalities of which OSHA should be aware?

This information is not collected by school districts in Connecticut. However, it is estimated that 68 percent of schools in Connecticut have indoor environmental problems that may include high heat.[1]

(8) Are there industries, occupations, or job tasks that should be considered when evaluating the health and safety impacts of hazardous heat exposure in indoor and outdoor work environments? Please provide examples and data.

Teachers, education support personnel, and administrative staff in K-12 school facilities, as well as school buses, and physical education.

(16) Are there regions with improving or worsening occupational heat hazards and associated outcomes? Please provide examples and data.

In Connecticut, average temperatures are increasing, and the incidence of heat waves and excessive rain are on the rise.[2] Humidity, and therefore the effect of high temperatures, has also been increasing.[3]

(18) What regional differences should be considered or accounted for when determining the appropriate interventions and practices to prevent heat-related injuries and illnesses among workers?

Humidity, the duration of unhealthy temperatures in schools, including risks associated with the number of consecutive days with high heat.

(19) Are there specific populations facing disproportionate exposure to or outcomes from hazardous heat in indoor or outdoor work settings? Please provide examples and data.

School staff in Connecticut's urban areas face greater risks associated with higher temperatures and poorer HVAC system maintenance. Additionally, "Black and Hispanic

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[1] The Connecticut Academy of Science and Engineering. (2015). *Indoor Air Quality in Connecticut Schools.* The Connecticut Academy of Science and Engineering. [note: This publication is not available online; we have submitted a copy separately.]

[2] Seth, A., Wang, G., Kirchhof, C., Lombardo, K., Stephenson, S., Anyah, R., & Wu, J. (2019). Connecticut Physical Climate Science Assessment Report. University of Connecticut, Connecticut Institute for Resilience and Climate Adaptation (CIRCA). https://circa.uconn.edu/ct-climate-science/

[3] Hanrahan, R. (2018, August 29). Most Humid Summer in Memory. Retrieved from NBC Connecticut: https://www.nbcconnecticut.com/news/local/most-humid-summer-in-memory/167177/

students' learning is roughly three times as inhibited by the prior school year's heat compared to the learning of white students."[4] There are large population centers in Connecticut that are disproportionately Black or Hispanic. Students and parents in these areas face disproportionate exposure to hazardous heat experienced by school staff in their school-work setting.

(20) Are there data sources available to assess inequalities in exposure to or outcomes from hazardous heat in indoor or outdoor work settings?

High heat reduces the educational achievement of K-12 students.[5]

(23) How will climate change affect existing inequities in occupational heat exposure and related health outcomes? Please provide relevant data.

Climate models forecast higher temperatures and more precipitation (i.e., therefore also higher humidity, which affects temperature) in Connecticut.[6] Additionally, school level staff includes a number of occupations that have more risk of hazardous heat conditions. Nationwide, 40 percent of educational support staff (ESP) identify as minorities. For example, 57 percent of New Mexico's ESPs are Hispanic and 69% of ESP in the District of Columbia are Black. The percent of Connecticut's population of paraprofessional educators who identify as Black or Hispanic has been growing, exceeding 20 percent statewide and with much higher concentrations in our urban areas that are also more vulnerable to heat stress.[7,8]

(24) How will climate change affect the risk of occupational heat-related illness and mortality in the different regions of the United States?

Until recently, high heat has not been a persistent issue in the Northeast; consequently, many K-12 school facilities were built without air conditioning. As climate changes and temperatures increase, many of Connecticut's K-12 school facilities will be affected.

Furthermore, older populations are at greater risk of heat-related illness and mortality, and Connecticut has the 6th oldest median age in the country.[9,10] Also, about one third of our teaching force is over the age of 50 and more than 11% are over the age of 60.[11]

(25) How should climate change be factored into an OSHA heat illness and injury prevention standard0?

OSHA should consider what outdoor temperatures are expected to be in the future since school facilities built now will be in use for decades.

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[4] Park, R. Jisung, Joshua Goodman, Michael Hurwitz, and Jonathan Smith. 2020. "Heat and Learning." American Economic Journal: Economic Policy, 12 (2): 306-39

[5] Park, R. Jisung, Joshua Goodman, Michael Hurwitz, and Jonathan Smith. 2020. "Heat and Learning." American Economic Journal: Economic Policy, 12 (2): 306-39

[6] Seth, A., Wang, G., Kirchhoff, C., Lombardo, K., Stephenson, S., Anya, R., & Wu, J. (2019). Connecticut Physical Climate Science Assessment Report. University of Connecticut, Connecticut Institute for Resilience and Climate Adaptation (CIRCA). Retrieved from https://circa.uconn.edu/wp-content/uploads/sites/1618/2019/11/CTPCSAR-Aug2019.pdf

[7] "School Paraprofessionals." Connecticut General Assembly, Legislative Program Review and Investigation Committee. 2006. https://www.cga.ct.gov/2006/pridata/Studies/School_Paraprofessionals_Final_Report.htm

[8] Seth, A., Wang, G., Kirchhof, C., Lombardo, K., Stephenson, S., Anyah, R., & Wu, J. (2019). Connecticut Physical Climate Science Assessment Report. University of Connecticut, Connecticut Institute for Resilience and Climate Adaptation (CIRCA). https://circa.uconn.edu/ct-climate-science/

[9] American Lung Association. (n.d.). State of the Air 2021. Retrieved from https://www.lung.org/getmedia/17c6cb6c-8a38-42a7-a3b0-6744011da370/sota-2021.pdf

[10] World Population Review. (n.d.). Median Age by State. Retrieved from World Population Review: https://worldpopulationreview.com/state-rankings/median-age-by-state

[11] Gais, T., Backstrom, B., Frank, J., & Wagner, A. (2019). The State of the Connecticut Teacher Workforce. Rockefeller Institute of Government. Retrieved from https://rockinst.org/issue-area/the-state-of-connecticut-teacher-workforce

(26) What efforts are employers currently taking to prepare for and respond to the ways that climate change is altering hazardous heat exposure in their workplaces?

Overwhelmingly, local boards of education in Connecticut are not remediating current high-heat conditions in K-12 public schools. Even as increased Federal American Rescue Plan funds became available to boards of education, few have applied such funds to HVAC remediation. Many schools simply close the school when heat exceeds tolerable temperatures, which can mean in-school temperatures exceeding 90 and even 100 degrees.[12]

Additionally, although employee groups could theoretically bargain for temperature limits, none in the 154 local school districts in Connecticut where we represent educators has this successfully been done. Employees' recourse to bargaining, local and statewide advocacy have largely not been able to overcome the fiscal and political resistance to such change.

(27) Are OSHA's existing efforts and authorities adequate or effective in protecting workers from hazardous heat in indoor and outdoor work settings?

Not in Connecticut because there is not a standard maximum temperature for schools.

(28) What additional efforts or improvements should be undertaken by OSHA to protect workers from hazardous heat in indoor and outdoor work settings?

Set a mandatory maximum indoor temperature and enforce it. Employers must maintain daily records of temperature conditions in their buildings. This data should be made public and provided to CT-OSHA on a regular schedule. Furthermore, employers must inform employees on heat stress, and there must be clear reporting protocols enabling school staff to notify CT-OSHA of hazardous conditions.

(29) What are the gaps and limitations of existing applicable OSHA standards, as well as existing campaign, guidance, enforcement, and other efforts for preventing occupational heat-related illness in indoor and outdoor work settings?

There is no OSHA mandated standard for high heat in indoor settings and, therefore, no campaigns, no guidance, and no enforcement.

(31) What are the challenges with the implementation of existing state standards aimed at preventing occupational heat-related illness?

There is no state standard, and the state legislature has not enacted one despite legislation in recent years proposing some limited standards. Local boards of education neglect standard maintenance and fail to repair or update HVAC systems to ensure tolerable workplace temperatures in schools.

Connecticut, like other New England states, prefers strong local control of public policy, which is evidenced by the state having a combined 187 state legislators — while the population is only 3.6 million. In contrast, California has a population of over 39 million; yet only 120 state legislators. (Connecticut has more state legislators than California, and less than 10% of the population that California has.)

To date, high-heat has not been formally recognized as a statewide concern in Connecticut, and only a few of wealthier communities among the 169 municipalities in the state have sought to address the impact of climate on schools (even then, one of the state's wealthiest towns recently lost a $500,000 settlement for "wet building conditions, poor ventilation, mold,

[12]"Mold, Rodent Droppings, Extreme Temperatures: Connecticut's Schools Are Falling Apart and Making Students and Teachers Sick." Nov. 4, 2019. https://cea.org/mold-rodent-droppings-extreme-temperatures-connecticuts-schools-are-falling-apart-and-making-students-and-teachers-sick/

high carbon dioxide and poor indoor air quality").[13] Consequently, in Connecticut, it is difficult to get statewide political consensus on the impact of climate change on schools when legislators are highly influenced by local fiscal and political resistance to making necessary HVAC investments.

(36) Are there other industry standards that contain elements that should be considered for a federal standard?

Existing OSHA Standard 1910.1000 (i.e., recommended, but not mandated) and ANSI/ASHRAE Standard 55.[14,15] Additionally, the OSHA Technical Manual offers *non*-binding office building temperature guidelines of 68º F to 76º F.[16]

(45) What thresholds are utilized for various metrics implemented in existing occupational heat prevention plans or activities? Are these thresholds effective for preventing heat-related illness and fatalities?

ANSI/ASHRAE Standard 55 has an industry-accepted acceptable temperature range of 67°F to 82°F.[17]

(52) Are there other individual risk factors that contribute to the risk of heat-related illness?

Children, older adults, or individuals with chronic lung disease.[18]

(96) OSHA requests any workers' compensation data related to heat-related injury and illness. Any other information on your workplace's experience would also be appreciated.

About one quarter of the workers' compensation claims handled by CEA are related to temperature and overall indoor air quality affected by the same HVAC systems that cannot maintain suitable temperatures.

(98) What are the potential economic impacts associated with the promulgation of a standard specific to the risk of heat-related injury and illness? Describe these impacts in terms of benefits, including reduction of incidents; effects on costs, revenue, and profit; and any other relevant impact measurements.

Requiring indoor-air temperatures in schools to be maintained within the range recommended for office buildings will decrease workers' compensation claims, decrease the use of sick days by staff and students, reduce health care costs associated with the diagnosis, treatment and recovery from illness related to excessive heat, and increase the educational

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[13] "Wilton to pay $500K settlement in school lawsuit." Nov. 21, 2021. https://www.wiltonbulletin.com/news/article/Wilton-to-pay-500K-settlement-in-school-lawsuit-16636348.php

[14] American Society of Heating, Refrigerating and Air-Conditioning Engineers. (2017). ASHRAE Bookstore. Retrieved from Standard 55-2017 -- Thermal Environmental Conditions for Human Occupancy: https://www.techstreet.com/ashrae/standards/ashrae-55-2017?product_id=1994974

[15] Occupational Safety and Health Administration. (2003, February 24). U.S. Department of Labor. Retrieved from Occupational Safety and Health Administration: https://www.osha.gov/laws-regs/standardinterpretations/2003-02-24

[16] Section III, Chapter 2, Subsection V of the OSHA Technical Manual (https://www.osha.gov/otm/section-3-health-hazards/chapter-2#rfte)

[17] American Society of Heating, Refrigerating and Air-Conditioning Engineers. (2017). ASHRAE Bookstore. Retrieved from Standard 55-2017 -- Thermal Environmental Conditions for Human Occupancy: https://www.techstreet.com/ashrae/standards/ashrae-55-2017?product_id=1994974

[18] American Lung Association. (n.d.). State of the Air 2021. Retrieved from https://www.lung.org/getmedia/17c6cb6c-8a38-42a7-a3b0-6744011da370/sota-2021.pdf

achievement of K-12 students. This will, in turn, reduce the cost of social programs due to low educational achievement.[19]

(111) Are there alternative regulatory or non-regulatory approaches OSHA could use to mitigate possible impacts on small entities?

Not to our knowledge. Going forward, both state and federal government funds should be made available to remediate hazardous heat conditions. In addition, funding could be provided through the Federal Department of Energy to replace old energy-wasting HVAC systems.

[19] Belfield, C. R. (2014). The Costs of High School Failure and School Suspensions for the State of California. Queens College, City University of New York, Department of Economics. The Center for Civil Rights Remedies. Retrieved from https://escholarship.org/content/qt8fb9x11w/qt8fb9x11w_noSplash_43fd0c1109ca419fda93f63257653294.pdf?t=ohzuq9