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*Testimony of*  
**Louis Rosado Burch**  
**Connecticut Education Association**  
*Before the*  
**Education Committee**

***SB 1198 An Act Concerning the Recommendations of the School Indoor Air Quality Working Group***

*March 15, 2023*

Esteemed members of the Education Committee, thank you for the opportunity to submit testimony today. I'm Louis Rosado Burch, Legislative Coordinator for Connecticut Education Association (CEA). CEA represents more than 40,000 active and retired teachers from over 150 school districts across the state.

CEA is pleased to offer testimony in support of Raised Senate Bill 1198 *An Act Concerning the Recommendations of the School Indoor Air Quality Working Group*.

Maintaining healthy school indoor air quality (IAQ) is essential to ensuring safe, healthy learning environments for children to thrive in. We know that properly maintained and up-to-date heating, ventilation, and air conditioning (HVAC) systems are the safest, proven effective defense against bad air in our schools.

Unfortunately, hundreds of school buildings across the state are lacking proper heating and air conditioning or are served by heating ventilation and air conditioning (HVAC) systems that are aging or in disrepair. According to the 2021 Dept. of Administrative Services (DAS) School Facilities Survey, 47% of school facilities for which there was a response were served by HVAC systems that were beyond their expected useful life.<sup>1</sup>

Unhealthy school IAQ can contribute to and/or exacerbate a myriad of short and long-term health issues that affect students and teachers alike. These include respiratory health problems, chronic illness, fatigue, and other medical issues that can have an adverse impact on student health and achievement.

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<sup>1</sup> <https://portal.ct.gov/-/media/DAS/Communications/Communications-List-Docs/Special-Reports/SCG1050-School-Survey-Report.pdf>

To see this, one must look no further than the high incidence of childhood asthma in our classrooms. The asthma rate in kids in Connecticut is above the national average, affecting roughly 3 out of 20 of Connecticut's school-age children.<sup>2</sup> The 2020 overall asthma prevalence among students in the Connecticut public school system was 2.9%. Approximately one in every eight students (12.9%) in Connecticut public schools suffers from asthma.<sup>3</sup>

School faculty and staff are also negatively impacted by the air quality in our schools. They are disproportionately at risk to respiratory illness due to the extended periods of time they spend working in school buildings. In fact, full-time school faculty have some of the highest rates of asthma among non-industrial occupations.<sup>4</sup>

To adequately safeguard against building related illness, routine inspections and maintenance of school HVAC facilities is needed on a regular basis. Unfortunately, many school districts lack the necessary funding for this maintenance.

The 2021 DAS report found that 74% of facilities for which a response was recorded were reported as having a uniform inspection program in place, but 33% of responding local educational agencies (LEAs) said they lacked the funding to carry out IAQ programs that had been adopted by the local board of education (BOE).<sup>5</sup> Nearly three-quarters, of responding LEAs reported that they had a formal plan in place for HVAC maintenance, but only 51% of them reported having planned and funded routine balancing and/or commissioning of their HVAC system. In DAS' words, this indicates "a significant gap in complete maintenance of these systems."<sup>6</sup>

P.A. 22-118 required BOEs to conduct a thorough inspection of HVAC facilities to be conducted by a licensed HVAC contractor, no less than once every five years. It also created a grant program under DAS to support districts in upgrading their school HVAC systems by issuing grants to reimburse BOEs (on a sliding scale) for HVAC repairs and installation.

Finally, the law established the "Connecticut School IAQ Working Group" to study the issue and make recommendations to the Connecticut General Assembly (CGA) regarding best practices for maintaining healthy air in our school buildings. The working group is made up of subject matter experts from a diverse field of stakeholders including licensed HVAC professionals, health experts, educators, administrators, parents, and community advocates.

The bill before you offers a set of short-term recommendations that were approved by members of the School IAQ Working Group. These include but are not limited to the following:

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<sup>2</sup> <https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/hems/asthma/pdf/Fullreportwithcoverpdf.pdf?la=en>

<sup>3</sup> Ibid

<sup>4</sup> <https://pubmed.ncbi.nlm.nih.gov/20187006/>

<sup>5</sup> <https://portal.ct.gov/-/media/DAS/Communications/Communications-List-Docs/Special-Reports/SCG1050-School-Survey-Report.pdf>

<sup>6</sup> Ibid

1. Establish an equitable system of distribution for school HVAC grant funds, prioritizing high-need, low-income school districts;
2. Require a low-cost walkthrough inspections of school facilities every three years, using an EPA-approved “Tools for Schools” inspection program<sup>7</sup>;
3. Develop standard inspection forms and reporting protocols for routine inspections and annual walkthroughs;
4. Develop an online portal to post reports and school inspection results and make them available to the public;
5. Extend the school HVAC grant program for an additional two years; and
6. Establish an optimal indoor temperature guideline of 65 to 85 degrees for school facilities.

These recommendations were the product of a broad consensus among working group members regarding the most critical, common sense measures the CGA could implement in the short-term to improve IAQ in our schools. These actions enhance BOEs capacity to properly maintain HVAC systems and direct the Dept. of Administrative Service (DAS) to provide necessary oversight and transparency.

SB 1198 leaves out one critically important change that was approved by the IAQ Working Group; Sec. 3(2) requires school districts to conduct a routine walk-through inspection of all school facilities every three years, using an EPA-approved “Tools for Schools” inspection program. The experts on the IAQ working group unanimously voted to change this to require an **annual** walkthrough inspection, to ensure HVAC systems are operating properly and identify other potential hazards that may impact school IAQ.

An annual walkthrough of school facilities is one of the primary recommendations of the National Healthy Schools Network.<sup>8</sup> It provides a low or no-cost, effective way to ensure a high-quality indoor environment. This is not only how districts identify unexpected issues with the HVAC system as they arise, but they also can help identify other indoor hazards that can affect air quality in our school facilities.

This is not a new concept to us here in Connecticut. A 2000 report by the Connecticut Academy of Science and Engineering (CASE) included in its first recommendation that the Connecticut General Assembly appoint a responsible state agency to “Develop guidelines, management practices and/or regulations for maintaining acceptable indoor air quality in schools. Such guidelines should establish minimum operating standards for HVAC systems, air cleaning as required, maintenance schedules and **annual inspections of HVAC systems and other features of the schools that affect indoor air quality.**”<sup>9</sup>

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<sup>7</sup> IAQ Working Group Members approved a recommendation to require the Tools for Schools walk through inspections annually, not once every three years.

<sup>8</sup> [https://apha.org/-/media/files/pdf/topics/covid/call\\_to\\_action\\_pandemic\\_v\\_schools.ashx](https://apha.org/-/media/files/pdf/topics/covid/call_to_action_pandemic_v_schools.ashx)

<sup>9</sup> 2000 CASE study, attached

Research has demonstrated that to achieve optimal HVAC performance, basic preventative maintenance must be done more frequently than every 3 or 5 years. A 2019 study by U.C. Davis and Berkeley Labs Research found 85% of the school facilities studied failed to meet basic IAQ standards, despite the fact that each of the 104 classrooms surveyed had HVAC systems that had been retrofitted within the previous 3 years.<sup>10</sup> This is a reminder that upgrading school HVAC systems is critical, but districts stand to lose money (and suffer from diminished air quality) if new HVAC systems are not inspected and maintained on an annual basis.

While it's imperative that the committee amend the bill to include annual Tools for Schools walkthrough inspections for all school facilities, reporting to the state should be maintained every five years, as is currently required under PA 10-220. Local BOEs should be expected to maintain those records and make them available to the public, but they should not be made to furnish them to the state on an annual basis. This would be unwieldy and create an administrative burden on the parts of both the local BOE and the state DAS.

In closing, we thank the committee for raising this important legislation and urge you to act. The changes proposed in the bill before you are necessary to ensure proper maintenance of school HVAC systems, and finance the corrective actions needed to safeguard public health. It provides for state oversight and transparency, while providing local BOEs with the flexibility needed to make changes in a reasonable time frame. CEA strongly supports these measures and respectfully urges the committee to approve this legislation without delay.

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<sup>10</sup> <https://wcec.ucdavis.edu/improving-indoor-air-quality-in-california-schools4/>