



Shaping Tomorrow's
Built Environment Today

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May 28, 2021

The Honorable Moises Denis
Chair
Senate Committee on Education
401 South Carson Street Room 2134
Carson City, NV 89701

Letter Sent Via Email to: Moises.Denis@sen.state.nv.us

RE: Assembly Bill 257

Dear Chair Denis and Committee Members:

ASHRAE, founded in 1894, is a global technical society advancing human well-being through sustainable technology for the built environment. The Society and its more than 50,000 members, including over 200 members in Nevada, focuses on building systems, energy efficiency, indoor air quality, refrigeration and sustainability. Through research, standards writing, publishing, certification and continuing education, ASHRAE shapes tomorrow's built environment today.

We are writing to you regarding Assembly Bill 257, "*Establishing provisions governing indoor air quality in public schools*". We appreciate the bill's focus on the importance of indoor air quality, and have specific suggestions for further improving the bill, which are listed below.

- In Section 3.5, we suggest changing this to "'Minimum efficiency reporting value' (MERV) means the minimum efficiency reporting value as established testing in accordance with the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 52.2-2017, Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size".
- We suggest adding a Section 4.6 stating "'Certified commissioning professional' means a person certified to perform commissioning activities for HVAC systems through a program accredited by ASHRAE or other providers of commissioning accreditation programs."
- In Section 7.1, we suggest changing this to read "Review the capacity and airflow of the filtration system to determine the type of filters with the best minimum efficiency reporting value based on industry standards that can be installed without adversely impacting the HVAC system". The current version of this sentence indicates the filtration system should

not be impacted, but it is meant to protect the HVAC system if the pressure drop requirement is too high for the improved filter.

- In Section 7.4, we suggest changing this to read “If a filtration system uses ultraviolet germicidal irradiation to disinfect air, ensure that the ultraviolet lamp is operating properly and does not shine on the filters, and replace the ultraviolet lamps as needed”. Lamp, as opposed to bulb, is the more commonly used industry term.
- We suggest adding a Section 7.7 to read “Evaluate existing filter pressure drop maximum allowable pressure drop to establish a target for the improved filter maximum allowable pressure drop to avoid adversely affecting the HVAC system.”
- We suggest adding a Section 7.8 to read “All air cleaning technologies that have the potential to generate ozone, shall be certified to UL-2998.”
- In Section 8.1.(a), we suggest changing this to read “Uniform Mechanical Code or ASHRAE Standard 62.1 – Ventilation for Acceptable Indoor Air Quality (2016 version or newer)”. This would provide an opportunity to use the most up-to-date ASHRAE standard.
- In Section 8.1.(b), we suggest changing this to read as follows: “With the assistance of a licensed professional engineer as necessary, calculate the required minimum.” It is likely appropriate, or even necessary given liability coverage and professional qualifications, that a professional engineer will be calculating required ventilation in these cases. These outdoor air calculations can be complex, especially for large variable air volume (VAV) systems.
- In Section 8.1.(b), we suggest changing this to read “Uniform Mechanical Code or ASHRAE Standard 62.1 – Ventilation for Acceptable Indoor Air Quality (2016 version or newer)” to match (a), as noted above.
- In Section 8.1.(i), we suggest changing this to read “Uniform Mechanical Code or ASHRAE Standard 62.1 – Ventilation for Acceptable Indoor Air Quality (2016 version or newer)” to match (a), as noted above.
- In Section 8.1.(m), we suggest changing this to read “With the assistance of a licensed professional engineer or certified commissioning professional, review the controls sequences to verify that the systems will maintain the intended ventilation, temperature and humidity during school operation”. ASHRAE describes the testing of HVAC system functionality as within the role of the commissioning provider.
- In Section 8.1.(n), we suggest changing the term “standards” to “guidance” and recommend removing the reference to the American National Standards Institute (ANSI). ASHRAE’s COVID-19 guidance documents from our Epidemic Task Force, unlike our standards documents, are not ANSI standards.
- In Section 8.1.(o), we suggest including a reference to the specific ASHRAE and ANSI guidance document or documents that are being referenced here. If the intent is to refer to ASHRAE’s Epidemic Task Force COVID-19 guidance, that document or documents should be included by name, and it also may be appropriate to remove the reference to ANSI in that case.
- In Section 8.1.(o.3), we suggest changing this to read “Qualified adjusting personnel, qualified testing personnel, a licensed professional engineer, or certified commissioning professional shall disable a demand control ventilation system installed at a school and configure the overall ventilation system to meet the minimum requirements of sections 2 to 13.5, inclusive, of this act”.

In summary, we hope your committee will consider improving the bill by relying on ASHRAE's technical expertise and incorporating the specific suggestions above. If you have any questions or need additional information, please do not hesitate to contact me or have your staff email GovAffairs@ashrae.org. Thank you for your consideration of this important matter and for working to ensure the health and well-being of building occupants.

Sincerely,

Handwritten signature of Charles E. Gullidge III, P.E. in black ink.

Charles E. Gullidge III, P.E., FASHRAE, HBDP, LEED AP
2020-21 ASHRAE President

cc: Nevada Assembly Committee on Education