

From: [Travis R English](#)
To: [CBSC@DGS](#); [Enright, Lawrence@HCAI](#); [Marvelli, Mia@HCAI](#); [Pamma, Simrit@HCAI](#); [Nelson, Ryan@HCAI](#)
Cc: [Mason, Dave](#); [Austin Barolin](#); [DJ Joh](#); [Alamelu Brooks](#); [Noella Tabladillo](#)
Subject: OSHPD 01/24 — Adopt and Amend the 2025 edition of the California Mechanical Code, Part 4, Title 24 - Comment #2
Date: Monday, August 12, 2024 12:08:44 PM

CAUTION: This email originated from a NON-State email address. Do not click links or open attachments unless you are certain of the sender's authenticity.

From: Travis English
To: California BSC
Re: **New section 407.5.1.5** - New requirement 2025 OSHPD Amendments to 2025 California Mechanical Code

Executive summary: Section 407.5.1.5 should not be added at this time. HCAI should either (a) adopt national standards, or (b) spend more time developing an approach to VAV, in conjunction with stakeholders (particularly the California Energy Commission).

1. The proposed 407.5.1.5 is a new, unprecedented, prescriptive requirement.
 - a. It is new language that has not been in the CA code before this proposal.
 - b. It does not come from any model code. It does not correspond to national standard ASHRAE Standard 170 (health care ventilation) or ASHRAE 90.1 (energy conservation). In fact, there are no other state, national, or international codes that contain this requirement. It is wholly unique to HCAI in CA.
 - c. As a wholly unique requirement, the burden of substantiation should be higher (not lower). There should, at minimum, be a study or white paper indicating why this is necessary for the health and safety of Californians. There is no such substantiation. The statement of reasons only references an existing CA code requirement prohibiting “fluctuating airflows”. However, that existing requirement is also wholly unique to HCAI in CA. HCAI has not (and cannot) articulate a contemporary rational justification for it.
2. The proposed language has an obvious energy impact. It explicitly requires constant volume zones and controls, which is contrary to energy conservation.
 - a. The proposed code language is currently in direct conflict with national energy standard ASHRAE 90.1 section 6.5.2, and would create a near-future conflict with T24 P6 140.4(d).
 - b. It is my understanding that HCAI and CEC did not jointly review this language prior to its proposal. Since it is a new, energy-affecting measure, I recommend that coordination take place prior to adoption.

3. Proposed 407.5.1.5 will be particularly restrictive to hospital energy retrofit work in CA. Energy retrofit project which could be performed in other states would require an outlay of capital to meet this section.
 - a. VAV retrofit projects are a significant opportunity in all US hospitals. In CA, that opportunity is higher, due to our code history.
 - b. In any other state, a retrofit project could be “controls-only”, where the retrofit is accomplished without adding additional devices. Such a “controls-only” project was demonstrated in a California hospital in California Energy Commission project CEC-500-2024-022.
 - c. Proposed section 407.5.1.5 ignores the results of the CEC research project, never mentioning them in the statement of reasons, and issues a contrary code requirement.

4. The proposed 407.5.1.5 uses restrictive prescriptive language, with no stated intent. In stark contrast, the national standard ASHRAE 170 uses performance language making compliance more attainable.
 - a. The national standard ASHRAE 170 sec.7.1.a.1 uses performance language: “If any form of variable-air-volume or load-shedding system is used for energy conservation, it shall not compromise the pressure balancing relationships or the minimum air changes required by the table.” Adopting the national standard language would have been a better proposal.

If you have any questions, would like more information, please call

-Travis

Travis R. English, PE CEP LEED-AP

Sr Director of Engineering

Kaiser Permanente

Facilities Design & Construction, Planning & Design

714-469-9553 (mobile phone)

kp.org/thrive

NOTICE TO RECIPIENT: If you are not the intended recipient of this e-mail, you are prohibited from sharing, copying, or otherwise using or disclosing its contents. If you have received this e-mail in error, please notify the sender immediately by reply e-mail and permanently delete this e-mail and any attachments without reading, forwarding or saving them. v.173.295
Thank you.