

**PARTICIPATION COMMENTS FOR THE NOTICE DATED OCTOBER 9, 2015**  
Written comments are to be sent to the above address.

**WRITTEN COMMENT DEADLINE: NOVEMBER 23, 2015 (no later than 5:00 pm)**

Date: November 2, 2015

From: Travis R. English, P.E.   
Name (Print or type) (Signature)  
Kaiser Permanente, Facilities Planning & Design, Engineering  
Agency, jurisdiction, chapter, company, association, individual, etc.  
4175 La Palma Ave. Suite 200, Anaheim, CA 92807  
Street City State Zip  
Travis.R.English@kp.org 714-469-9553  
Email address Phone number

I/We (do)(do not) agree with:

The Agency proposed modifications As Submitted on Section No. T24, Part 4

and request that this section or reference provision be recommended:

Approve  Disapprove  Further Study  Approve as Amended

**Suggested Revisions to the Text of the Regulations:**

*407.5.1 Variable Air Volume Systems (VAV). Variable air volume systems subjecting the patient to a fluctuating air movement are not acceptable for airborne isolation rooms, protective environment rooms or those critically sensitive areas listed in Table 325.0. For nonsensitive areas, variable air volume systems meeting the following criteria can be considered.*

*407.5.1.1 The VAV system shall comply with code requirements for outside air, total air, and pressure relationship through the full range of operation from minimum to maximum*

*407.5.1.2 The central return or exhaust fan shall be controlled to accomplish the variable air volume requirements of the individual rooms served by the fan as described in Section 407.5.1.3.*

*407.5.1.3 Variable air volume for return or exhaust air shall be accomplished by utilizing an automatic modulating damper in the return or exhaust air for each zone. The damper will modulate from full open to minimum position in conjunction with the supply air VAV terminal box.*

**Reason:** [The reason should be concise if the request is for “Disapprove,” “Further Study Required,” or “Approve As Amended” and identify at least one of the 9-point criteria (following) of Health and Safety Code §18930.]

*Please include this amendment, recommended under HSC §18930 (a), points 7, 5, & 4*

**HSC §18930 (a) (7) The applicable national specifications, published standards, and model codes have been incorporated therein as provided in this part, where appropriate.**

*Without this amendment, it seems §18930 (a) (7) may not be met.*

*There is a national published standard for health care ventilation: ASHRAE-170. It is appropriate for California use. OSHPD’s initial statement of reasons (ISOR) cites ASHRAE-170 throughout, indicating it is adequate for California use.*

*However, ASHRAE-170 does not require return-air variable-air-volume (VAV) devices. The initial statement of reasons (ISOR) by OSHPD does not detail why ASHRAE-170 is inadequate for California in this regard, as required by §18930 (a) (7) (A). This appears to be an arbitrary omission or non-adoption*

**HSC §18930 (a) (5) The cost to the public is reasonable, based on the overall benefit to be derived from the building standards.**

*Title 24 part 4, as proposed, does not seem to meet §18930 (a) (5)*

*The California requirement for return-air variable-air-volume devices adds significant cost to VAV systems. This decreases the affordability of VAV systems, which are a key energy conservation measure for hospitals.*

*We are not aware of any benefit gained by the return-air VAV devices. We are not aware of another US state who imposes this costly requirement on its hospitals.*

*Decreasing the affordability of VAV systems discourages energy conservation. This would seem to be contrary to the public interest (i.e. it also may not meet HSC §18930 (a) (3)).*

**HSC §18930 (a) (4) The proposed building standard is not unreasonable, arbitrary, unfair, or capricious, in whole or in part.**

*Without this amendment, it seems §18930 (a) (4) may not be met.*

*The requirement for return-air VAV devices would be unique to California, and substantially more costly than ASHRAE-170 (i.e. “arbitrary” in §18930 (a) (4)). Costs including controls and start-up are >\$2,000 per zone. There aren’t any apparent benefits to return-air VAV boxes to offset the increased costs California hospitals incur. Without a stated justification in the ISOR, this requirement would seem to place unfair cost burdens on California hospitals seeking energy efficiency.*

#### HEALTH & SAFETY CODE SECTION 18930

##### SECTION 18930. APPROVAL OR ADOPTION OF BUILDING STANDARDS; ANALYSIS AND CRITERIA; REVIEW CONSIDERATIONS; FACTUAL DETERMINATIONS

- (a) Any building standard adopted or proposed by state agencies shall be submitted to, and approved or adopted by, the California Building Standards Commission prior to codification. Prior to submission to the commission, building standards shall be adopted in compliance with the procedures specified in Article 5 (commencing with Section 11346) of Chapter 3.5 of Part 1 of Division 3 of Title 2 of the Government Code. Building standards adopted by state agencies and submitted to the commission for approval shall be accompanied by an analysis written by the adopting agency or state agency that proposes the building standards which shall, to the satisfaction of the commission, justify the approval thereof in terms of the following criteria:
- (1) The proposed building standards do not conflict with, overlap, or duplicate other building standards.
  - (2) The proposed building standard is within the parameters established by enabling legislation and is not expressly within the exclusive jurisdiction of another agency.
  - (3) The public interest requires the adoption of the building standards.
  - (4) The proposed building standard is not unreasonable, arbitrary, unfair, or capricious, in whole or in part.
  - (5) The cost to the public is reasonable, based on the overall benefit to be derived from the building standards.
  - (6) The proposed building standard is not unnecessarily ambiguous or vague, in whole or in part.
  - (7) The applicable national specifications, published standards, and model codes have been incorporated therein as provided in this part, where appropriate.
    - (A) If a national specification, published standard, or model code does not adequately address the goals of the state agency, a statement defining the inadequacy shall accompany the proposed building standard when submitted to the commission.
    - (B) If there is no national specification, published standard, or model code that is relevant to the proposed building standard, the state agency shall prepare a statement informing the commission and submit that statement with the proposed building standard.
  - (8) The format of the proposed building standards is consistent with that adopted by the commission.
  - (9) The proposed building standard, if it promotes fire and panic safety as determined by the State Fire Marshal, has the written approval of the State Fire Marshal.