STATE OF CALIFORNIA
STATE AND CONSUMER SERVICES AGENCY
CALIFORNIA BUILDING STANDARDS COMMISSION
2525 NATOMAS PARK DR., SUITE 130
SACRAMENTO, CA 95833
(916) 263-0916 Phone
(916) 263-0959 Fax
Email: cbsc@dgs.ca.gov

Office Use Item No. _____

PARTICIPATION COMMENTS FOR THE NOTICE DATED AUGUST 24, 2012
Written comments are to be sent to the above address.

WRITTEN COMMENT DEADLINE: OCTOBER 8, 2012

Date: October 8, 2012

From: Thomas A. Enslow
Name (Print or type) (Signature)

submitted on behalf of: Joint Committee on Energy and Environmental Policy
Agency, jurisdiction, chapter, company, association, individual, etc.

Adams Broadwell Joseph & Cardozo, 520 Capitol Mall, Suite 350, Sacramento, California 95814
Street City State Zip

The Joint Committee on Energy and Environmental Policy *does not agree* with:

[**X**] The OSHPD proposed modifications as submitted on section no.

California Mechanical Code § 602.3.1 (OSHPD): proposed amendment to allow OSHPD 3SE occupancies to install flexible duct in lengths greater than 10 feet.

and request that this section or reference provision be recommended:

[ ] Approved [X] Disapproved [ ] Held for Further Study [] Approved as Amended

Suggested Revisions to the Text of the Regulations:

Keep existing California Mechanical Code § 602.3.1 OSHPD amendment applicable to OSHPD 3SE occupancies (limiting flexible duct length to no more than 10 feet).

Reason: Criteria 3 (public interest), Criteria 4 (unreasonable, arbitrary, unfair & capricious)

Removal of OSHPD 3SE occupancies from the OSHPD exception listed in CMC § 602.3.1 (limiting flexible duct length to no more than 10 feet) would be arbitrary, unreasonable and capricious since there is no rationale stated for applying this limitation on flexible duct length to other OSHPD occupancies and not to OSHPD 3SE occupancies. Removing OSHPD 3SE occupancies from the OSHPD exceptions listed in CMC § 602.3.1 would also be contrary to the public interest and would violate the California Environmental Quality Act. The proposed amendment will have a significant impact on duct system safety, performance, efficiency, reliability and operation. Numerous studies have confirmed that longer lengths of flexible duct result in significant reductions in duct system safety, performance, efficiency, reliability and operation. Excess flex duct in HVAC systems has been demonstrated to result in excessive duct static pressure and fan energy cost. Flex duct can have more than a 60 percent higher pressure drop than galvanized metal duct of the same diameters. Flexible ducts are also less resistant to flame penetration and have lower puncture and impact resistance. (See HVAC Flexible Duct Pressure Loss Measurements, ASHRAE RP-1333 (March 2011) (attached); Dept. of Defense, UFC-3-400-10N (July 2006) (attached);

NEBB, Environmental Systems Technology (excerpts attached); Energy Design Resources, Design Brief, Integrated Design for Small Commercial HVAC (attached).)

Surveys have demonstrated that it is entirely unrealistic to expect flexible ducts of any significant length to be properly installed in a fully stretched position with no significant bends or turns. When housing and industrial installations of flexible duct pipe were reviewed, not a single installation was found to be in compliance with installation requirements. Moreover, enforcement of installation requirements is unreliable because improperly installed flexible duct is difficult to detect, since compression is difficult to see or measure when installed. (HVAC Flexible Duct Pressure Loss Measurements, ASHRAE RP-1333 (March 2011) at p.44.)

Due to these performance limitations, the trend in the industry has been to *limit* the allowable length of flex ducts, *not to increase* the allowed length. The 2009 ASHRAE Fundamentals Books states that for commercial systems, flexible ducts should be no more than 5 feet in length, full stretched. (2009 ASHRAE Fundamentals Handbook.) The Department of Defense similarly recommends limiting flexible duct lengths to no more than 6 feet. (See Dept. of Defense, UFC-3-400-10N (July 2006) at p. 11.) Energy Design Resources has also recommended that flex duct runs be limited to six feet or less, as well as supported at five foot intervals and with a bend radius of greater than one times the duct diameter. (Energy Design Resources, Design Brief, Integrated Design for Small Commercial HVAC at p. 11.)

Because there is substantial evidence that the proposed amendment to allow OSHPD 3SE occupancies to install flexible duct in lengths greater than 10 feet may result in significant energy efficiency, performance and environmental impacts, the proposed regulations approving these products may not be adopted until these potential impacts have been fully disclosed, evaluated and mitigated in an environmental impact report ("EIR"), as required by the California Environmental Quality Act ("CEQA"). Until then, the Commission must disapprove the proposed regulations or, in the alternative, table the proposal pending further study. Adoption of these proposed regulations prior to completion of this review would violate state law.

An agency action is subject to CEQA if it: (1) is a discretionary action undertaken by a public agency, and (2) may cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment. (Pub. Resources Code §§ 21065, 21080; Cal. Code Regs., tit. 14 §§ 15061, 15357, 15358, 15378.) The adoption of regulations is considered "discretionary" under CEQA if any application of judgment is required. (*Wildlife Alive v. Chickering* (1976) 18 Cal.3d 190, 206.) The courts have uniformly held that the adoption of building standards meets this definition and is subject to environmental review under CEQA. (See *Building Code Action v. Energy Resources Conservation and Development Commission* (1980) 102 Cal.App.3d 577 (holding that adoption of energy conservation regulations establishing double-glazing standards for new residential construction was subject to CEQA review since it could result in a significant impact on air quality as a result of increased glass production); see also *Plastic Pipe and Fitting Association v. California Building Standards Commission* (2004) 24 Cal.App.4th 1390 (holding that environmental review under CEQA must be conducted prior to the approval of building code amendments authorizing use of plastic pipe materials that may have a significant impact on the environment.)

In reviewing whether a government action may cause a physical change in the environment, the "fair argument standard" is applied. (*Dunn-Edwards v. Bay Area Air Quality Management District* (1992) 9 Cal.App.4th 644, 654-656.) Under this standard, CEQA review occurs "whenever it can be fairly argued on the basis of substantial evidence" that the project may cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment. (*Id.*) "'Substantial evidence' . . . means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached." (*Castaic Lake Water Agency v. City of Santa Clarita* (1995) 41 Cal.App.4th 1257, 1264-1265.)

In the case at hand, the documents attached as exhibits to this comment letter provide substantial evidence that OSHPD's proposed amendment to allow the installation of longer lengths of flexible pipe in OSHPD 3SE occupancies may result in reasonably foreseeable indirect physical changes in the environment. Because the fair argument standard applies, this evidence conclusively establishes that CEQA applies regardless of whether other contrary evidence is presented.

The proposed amendment must also be denied because it would not meet at least two of the nine-point criteria: (1) the requirement that the adoption of standards be in the public interest, and (2) the requirement that the adoption of standards would not be unreasonable, arbitrary or unfair. The proposed amendment to allow OSHPD 3SE occupancies to install flexible duct in lengths greater than 10 feet prior to the completion of an EIR would result in substantially decreased energy efficiency, performance and reliability. In addition, any short term savings that this amendment would provide to the developer of the clinic building, would be outweighed by the increased energy and maintenance costs that would be borne by the clinic itself. Accordingly, adoption of this amendment would be contrary to the public interest and unreasonable, arbitrary and unfair.

(See Attached Documents)

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.