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

Office Use Item No. _____

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: 10/29/2015

From: Dion Abril
Name (Print or type) (Signature)

Western States Council of Sheet Metal Workers
Agency, jurisdiction, chapter, company, association, individual, etc.

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Street City State Zip

dion@wscsmw.org (916) 339-7359
Email address Phone number

I/We do not agree with:

[ ] The Agency proposed modifications As Submitted on Section No. **603.4.1**

and request that this section or reference provision be recommended:

[ ] Approve [x] Disapprove [ ] Further Study [ ] Approve as Amended

Suggested Revisions to the Text of the Regulations:

603.4.1 Length Limitation. ~~*[Not permitted for OSHPD 1, 2, 3, & 4].*~~ Factory-made flexible air ducts and connectors shall be not more than 5 feet (1524 mm) in length and shall not be used in lieu of rigid elbows or fittings.

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.]

Oppose Based on Criteria 1 and 7 (conflict with other building standards; failure to justify not following model code language):

OSHPD is the only state agency not following model code (UMC) with limitation of flexible duct. This would make medical facilities less restrictive than all other non-residential buildings in California. This creates conflict where medical clinics are operated within a multi-tenant commercial building or if medical clinics or other OSHPD facilities are converted to commercial use. OSHPD has not identified the inadequacy of the model code language.

Oppose Based on Criteria 3 (Public Interest):

A 2011 ASHRAE study on flexible duct pressure loss measurements found that flexible duct performs adequately only when stretched on a flat surface at less than four percent compression without any bends or turns. Flex Duct lengths of more than 5 feet are more likely to be hung or curled around obstacles, resulting in sags, bends, kinks and compression that substantially reduce HVAC system efficiency and create difficulty in maintaining appropriate air flows and performance. When housing and industrial installations of flexible duct were reviewed, installed compression ratios were observed to vary from 10% compression to over 50% compression. At even just 4% compression, the pressure drop will increase approximately two times what would occur in rigid duct conditions. At a moderate compression of 15%, the pressure drop increases approximately four times compared to fully stretched conditions. At 30% compression, the pressure drop increases approximately ten times. *(Chris Van Rite, M&M Manufacturing Co., Airflow Is Critical To HVAC System Performance, https://www.energyvortex.com/files/Airflow_is_Critical.pdf; Abushakra, et al, Lawrence Berkeley National Laboratory, Compression Effects on Pressure Loss in Flexible HVAC Ducts (2002); see also ASHRAE, HVAC Flexible Duct Pressure Loss Measurements, ASHRAE RP-1333, Final Report (March 2011). http://www.escholarship.org/uc/item/0d76400v.)*

In addition to reduced energy efficiency and comfort, poor air flow from flexible duct runs create ventilation hazards that reduces the indoor environmental quality for the building occupants and increase the risk of airborne disease transmission. *(See U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Guidelines for Environmental Infection Control in Health-Care Facilities Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC), (2003) at pp. 13-21, http://www.cdc.gov/hicpac/pdf/guidelines/eic_in_HCF_03.pdf.)*

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.