



Joint Committee on Energy and



Environmental Policy



September 4, 2009

Mr. Thomas L. Morrison
Deputy Executive Director
California Building Standards Commission
2525 Natomas Park Drive
Sacramento, CA 95833

Sent Via Electronic Mail
CBSC@dgs.ca.gov

Re: Written Comment Division of the State Architect – CMC

Dear Mr. Morrison:

The following comments are submitted in response to the Division of the State Architect's 2009 Notice of Proposed Action regarding the 2009 Annual Rulemaking Cycle proposals for adoption of the California Mechanical Code

The California Sheet Metal and Air Conditioning Contractors' National Association (SMACNA) respectfully requests that the Division of the State Architect ("DSA") join the California Building Standards Commission (CBSC), the Department of Housing and Community Development (HCD), the Office of Statewide Health Planning and Development (OSHPD) and the Office of the State Fire Marshal (SFM) in adopting amendments to the 2009 UMC that would incorporate the updated 2006 edition of the ANSI/Sheet Metal and Air Conditioning Contractors' National Association (SMACNA) HVAC Duct Construction Standards (Metal and Flexible) 006-2006 and would delete outdated extracts from the old version of the standard.

Our rationale for recommending this change is attached.

Feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Erik S Emblem".

Erik S Emblem
Consultant

Attach.



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
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Email: BSC@dgs.ca.gov

Office Use Item No. _____

PARTICIPATION COMMENTS FOR THE NOTICE DATED AUGUST 28, 2009
Written comments are to be sent to the above address.

WRITTEN COMMENT DEADLINE: OCTOBER 12, 2009

Date: September 4, 2009

From: Erik S Emblem
Name (Print or type)


(Signature)

CAL SMACNA/SMWIA Joint Committee on Energy and Environmental Policy
Agency, jurisdiction, chapter, company, association, individual, etc.

1809 S Street Suite 101-207 - Sacramento, CA 95811
Street City State Zip

I/We (~~do~~) agree with:

[X] The Agency proposed modifications As Submitted on Section No. _____
CMC Section 6, Chapter 17 and Appendix A (See Attached)

and request that this section or reference provision be recommended:

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

Suggested Revisions to the Text of the Regulations:

(See Attached Rational)

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

Approve as amended. Nine Point Criteria : 1,2,3,4,5,6, & 8.

(See Attached)

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.

CAL SMACNA/SMWIA Rational – DSA CMC Changes

RATIONALE:

The 2009 UMC refers to an outdated SMACNA duct construction standard (1995 version), and includes tables, and an Appendix extracted from this now outdated standard. SMACNA updated this standard in 2006, and it is now ANSI approved, entitled “SMACNA/ANSI 006-2006 HVAC Duct Construction Standards - Metal and Flexible.” However, the updated standard was published after the deadline for submitting code proposals for the 2009 UMC, resulting in its omission. IAPMO is in the process of updating this reference, but will not complete this process prior to the adoption of the 2010 California Mechanical Code.

The outdated reference, out of date tables and Appendix create conflict between code enforcement agencies, contractors and design engineering firms. HVAC contractors and design firms are currently using the 2006 version of SMACNA in their system duct design. Moreover, the 1995 version *is no longer published or available*.

In addition, the 2009 UMC, Chapter 17, Standards Table 17-1 only lists the updated 2006 SMACNA standard and does *not* list the outdated 1995 version referenced in the text of the code. This creates both confusion and a potential for conflict. The data within the SMACNA standard has been tested and promulgated through a consensus based process and should only be used in whole. Continued use of outdated partial extracts in the UMC will create confusion and inconsistency.

Finally, the SMACNA/ANSI 006-2006 HVAC Duct Construction Standards - Metal and Flexible are already referenced in the other major industry HVAC documents, including:

- ASHRAE Standard 62.1
- ASHRAE Fundamentals Handbook
- National Fire Protection Association 90A, 90B, 96
- US Army Corp of Engineers
- International Mechanical Code
- International Energy Conservation Code

By adopting the 2006 SMACNA HVAC Duct Construction Standards into the 2010 California Mechanical Code, the State will ensure consistency with these other industry documents. In addition, much of the Federal stimulus money for energy efficiency requires the use of the most updated energy efficiency standards. The use of the outdated 1995 SMACNA HVAC Duct Construction Standards could potentially conflict with some of these requirements.

The proposal does the following:

- Moves the definition for the scope of this section that was contained in Appendix A (A6.201) to the body of the code in Section 601.0
- Amends Section 602.1 to replace the references to the outdated extracts of the 1995 SMACNA HVAC Duct Construction Standards with a reference to the 2006 SMACNA HVAC Duct Construction Standards.
- Updates the Standards listed in Chapter 17. 2009 UMC incorrectly identifies the 2006 SMACNA HVAC Duct Construction Standards as a “2005” standard.
- Eliminates Tables 6.1-6.10, which contain outdated extracts from the 1995 SMACNA HVAC Duct Construction Standards.
- Eliminates Appendix A, which contains simplified and outdated extracts from the 1995 SMACNA HVAC Duct Construction Standards. (Except for Section 6.201 – Scope; we propose moving this definition to the body of the code in Section 601.0.)

By simply referencing the 2006 SMACNA HVAC Duct Construction Standards and not replacing the deleted tables and Appendix A, the Code will be simplified and will eliminate confusion and conflict. The new standards are more complex and involved than the 1995 standards. As a result, including selected or simplified extracts within the code may lead to inaccuracies and misapplication of the standard.

CAL SMACNA/SMWIA Rational – DSA CMC Changes

CBSC, HCD, OSHPD and SFM have all proposed adopting amendments to the 2009 UMC that would incorporate the updated 2006 edition of the ANSI/SMACNA HVAC Duct Construction Standards (Metal and Flexible) 006-2006 and eliminate the references to and extracts from the outdated 1995 version of the SMACNA HVAC Duct Construction Standards. By joining with these agencies in adopting this proposed amendment, DSA will ensure consistency throughout the code and reduce the potential for confusion in the California building industry.

Nine-Point Criteria

These proposed revisions would satisfy several of the nine-point criteria listed in Health and Safety Code section 18930, including criterion 1 (“proposed building standards do not conflict with, overlap, or duplicate other building standards”); criterion 3 (“public interest”); and criterion 7 (incorporation of the most recent “applicable national standards”).

PROPOSED REVISIONS

601.0 Scope

601.3 The performance criteria and requirements herein contemplate a duct that is a structural assembly having the capacity to support occupant health and safety while minimizing its own contribution to property damage under emergency conditions. Ducts can supply fresh or treated air in support of life and health, can convey products of combustion away from a fire zone, can maintain a pressure differential that facilitates evacuation and reduces the spread of fire and smoke, and can facilitate firefighter access to a fire source.

[The above language was taken verbatim from Appendix A, A602.1 – Scope.]

602.1 General. (Page 93) Supply air, return air, and outside air for heating, cooling, or evaporative cooling systems shall be conducted through duct systems constructed of metal as set forth in the ANSI/Sheet Metal and Air Conditioning Contractors’ National Association (SMACNA) HVAC Duct Construction Standards (Metal and Flexible) 006-2006. Tables 6-1, 6-2, 6-3, 6-4, 6-7, 6-8, 6-9, and 6-10, or metal ducts complying with UMC Standard No. 6-2 or the referenced HVAC duct construction standard in Chapter 17. Rectangular ducts in excess of two (2) inches w.g. shall comply with UMC Standard No. 6-2 or the referenced HVAC duct construction standard in Chapter 17. Ducts, plenums, and fittings may be constructed of concrete, clay, or ceramics when installed in the ground or in a concrete slab, provided the joints are tightly sealed.

DELETE TABLES 6.1 – 6.10

UPDATE CHAPTER 17 - Standards Table 17-1

SMACNA – 2005 HVAC Duct Construction Standards Metal and Flexible 3rd edition
SMACNA – 2006 HVAC Duct Construction Standards Metal and Flexible 3rd edition

DELETE APPENDIX A
