STATE OF CALIFORNIA
DEPT. OF GENERAL SERVICES - GOVERNMENT OPERATIONS AGENCY
CALIFORNIA BUILDING STANDARDS COMMISSION
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Office Use Item No. _____

**PARTICIPATION COMMENTS FOR THE NOTICE DATED OCTOBER 8, 2015**
**Written comments are to be sent to the above address.**

**WRITTEN COMMENT DEADLINE: NOVEMBER 23, 2015 at 5:00pm**

Date: 11-23-2015

From:

Steve Poe, PE
Name (Print or type) (Signature)

Critchfield Mechanical Inc.
Agency, jurisdiction, chapter, company, association, individual, etc.

1901 Junction Ave, San Jose CA 95131
Street City State Zip

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

[ **X** ] The Agency proposed modifications As Submitted on Section No. BSC 02/15: California Mechanical Code, Part 4, Title 24

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:**

We recommend that the BSC retain the existing Chapter 12 of the 2013 CMC (based on the 2012 UMC) in the 2016 CMC instead of adopting Chapter 12 of the 2015 UMC.

**Reason:**

- Chapter 12 (Hydronic Systems) of the 2015 UMC is a complete rewrite – every section was changed from the 2012 UMC. After the revised chapter was adopted last spring, it was found to have several errors, duplicated text, redundant text, and unenforceable language, violating Health and Safety Code §18930 item 4), 6), and (7) A.
- In recognizing these issues, IAPMO (the body that developed and maintains the UMC), formed a Task Group to review the Chapter. The Task Group has reviewed about half of the Chapter and has already agreed to make significant changes to almost every section it has reviewed. These changes, if adopted by IAPMO in the

next code cycle, will mean that the 2018 Chapter 12 will be a substantial revision to the 2015 Chapter 12, itself a 100% revision to the 2012 Chapter 12.

- If the 2015 Chapter 12 is adopted into the 2016 CMC, designers and code officials will have to learn the completely revised new Chapter, then, in three years, they will have to learn the nearly completely new 2018 Chapter. This is at best confusing and inefficient.
- If the 2015 Chapter 12 is adopted into the 2016 CMC, designers and code officials will have to live with a code that is known to contain errors.
- Section 1215.5 of the new version of CMC Chapter calls for the flash point of the heat transfer fluid in a hydronic system to be a minimum of 50 degrees above the maximum operating temperature. Since water flashes to steam at 212 degrees, this would limit the temperature of water in all hydronic systems to 162 degrees. This would be very limiting and detrimental to new HVAC system designs, since they most HVAC boilers and coils are currently designed to operate at 180 degrees.
- Retaining the current CMC Chapter 12 has no impact on the safety and integrity of Hydronic Systems since it is the code California has been using for 3 years. IAPMO decided to revise the Chapter to reduce some duplicated language, not because it contained errors. Retaining the existing Chapter 12 is therefore in the best interest to the public as well as to designers and code officials.

[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.]

## 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.