

**PUBLIC COMMENT on PROPOSED BUILDING STANDARDS**  
For Publication in Title 24, California Code of Regulations

See instructions for completing this form on Page 2.

**Commenter Contact Information**

Name:	_____	Date:	_____
Representing:	_____		
Mailing Address:	Number & Street:	_____	
	City:	State:	Zip Code:
	_____	_____	_____
Telephone #:	Email: _____		

**Proposed Building Standard**

Title 24 Part #: (select one)	_____	Section #:	_____
Proposing State Agency _____			
This comment is intended for review during: (select one)	<input type="radio"/> Code Advisory Committee <input type="radio"/> 45-Day Comment Period <input type="radio"/> 15-Day Comment Period <input type="radio"/> Commission Meeting		
Your recommendation based on the criteria of Health and Safety Code Section 18930(a) printed on the back of this form is: (select one) <input type="radio"/> Approve <input type="radio"/> Disapprove <input type="radio"/> Further Study Required <input type="radio"/> Approve as Amended			

**In support of your recommendation above, provide the rationale based on the criteria of Health and Safety Code Section 18930(a) printed on the back of this form. If you recommend anything other than approve, cite the criteria in your comment. If you oppose a proposed building standard, offer a solution or alternative for the state agency to consider. Please use separate pages if your comment does not fit in this space.**

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**Attachments?**

☐ Check if you have attached additional pages. The number of pages attached is: \_\_\_\_\_

**For CBSC Office Use Only** Date Received: \_\_\_\_\_ Rulemaking Item #: \_\_\_\_\_

## Instructions for completing this form

1. Use of this form is optional. It helps CBSC and other state proposing agencies to correctly administer your comments.
2. For matters to be considered at a public CBSC Code Advisory Committee (CAC) meeting, written comments should be received at least seven days before the scheduled meeting.
3. For matters subject to a 45-Day or 15-Day public comment period announced by a Notice of Proposed Action (NOPA), written comments **must be received** on or before the close of the comment period identified in the NOPA.
4. Separate comment forms are necessary for CAC and public comment periods.
5. Separate comment forms are necessary for each state agency proposal.
6. This form is available in fill-and-print format at the CBSC website, [www.bsc.ca.gov](http://www.bsc.ca.gov), for you to complete and submit electronically. Or print a blank form and type or complete by hand. You may attach additional pages if necessary.
7. Submit comments to CBSC, 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833-2936, or by email to [cbsc@dgs.ca.gov](mailto:cbsc@dgs.ca.gov). Please do not fax comments.
8. Written and oral comments may also be provided at CBSC public meetings to consider the proposed building standards.

***For assistance, call CBSC at (916) 263-0916 or email [cbsc@dgs.ca.gov](mailto:cbsc@dgs.ca.gov).***

## **Building Standards Nine-Point Criteria. Health and Safety Code Section 18930(a) reads:**

(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. The public interest includes, but is not limited to, health and safety, resource efficiency, fire safety, seismic safety, building and building system performance, and consistency with environmental, public health, and accessibility statutes and regulations.
- (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.

Oct. 11, 2018

California Building Standards Commission  
2525 Natomas Park Drive, Suite 130  
Sacramento, CA 95833-2936

**RE: Support for OSFM Proposed changes CRC-Item 4, CBC-Item 17 & CRSC: Standards for Insulating Materials**

Dear Members of the California Building Standards Commission:

My name is Donald Lucas. I am a retired combustion scientist at the Lawrence Berkeley National Laboratory and UC Berkeley and was the Deputy Director of the EH&S Division at LBNL. I am a member of the Technical Advisory Committee for BEARHFTI and served on the California State Fire Marshal's Working Group for AB 127. I also served on other committees regarding flammability and fire safety issues. I am a consultant for the Green Science Policy Institute, and have previously presented code change proposals to the ICC.

My name is David Rich and I am a former Rescue Captain and Paramedic with the San Francisco Fire Department and a founding partner at Reax Engineering, a thermal science consulting firm in San Francisco's Bay Area. I have comprehensive experience in fire testing, analysis, and modeling to support research and development, litigation, and fire safe design. I am a designated 3rd party peer reviewer for the City of San Francisco specializing in evaluation of building fire safety systems. I am active in code development processes through membership in IEC TC 89 (Fire Hazard Testing), and TC 108 (Safety of Electronic Equipment) and ASTM E05 (Fire Standards). I have a Ph.D. in the Combustion and Fire Processes Laboratory at the University of California and I am a regular lecturer in thermo-fluid sciences in the Berkeley Department of Mechanical Engineering and in the Fire Protection Engineering graduate program at Cal Poly San Luis Obispo.

**We support the CA State Fire Marshal's proposals "Flammability Standards for Building Insulation Materials"** which would allow (but not require) the use of polystyrene plastic foam insulation without added flame retardants where there is no meaningful fire safety benefit. One such situation is where polystyrene foam insulation is used in below-grade applications. As shown in the Oklahoma State University study, there was no significant difference in the fire performance of polystyrene foam insulation with and without added flame retardants. There was no risk of fire spread to the rest of the building structure, and no additional danger to occupants of the building or first responders. We believe their research and conclusions were sound, and have been correctly interpreted as justification for the Fire Marshal's proposed code changes.

Unprotected polystyrene foam insulation is a fire hazard regardless of whether or not it contains flame retardants. Proper thermal barriers are required in all building applications where polystyrene foam insulation is used, and the proposed code changes reflect this protection. In addition, fire requires three elements to propagate: fuel, heat, and oxygen. When polystyrene foam insulation is installed below-grade, there are no known ignition sources, and the oxygen supply is extremely limited.

Safety concerns during storage and construction were areas addressed by the Oklahoma State University study, and by our own research. Proper storage and construction methods to prevent

accidental fires are covered by other codes and standards such as NFPA 241. There is little evidence that polystyrene foam insulation was a major factor in the large construction fires that occurred in California in the past few years.

Feedback from the recent BFO committee meeting was incorporated in the revised code language submitted by the OSFM. Improvements in labeling, storage language, and limiting the use of plastic foam insulation to polystyrene answered concerns raised, and strengthened the proposed code language.

We support reducing the use of potentially toxic chemical flame retardants in the proposed code changes. As a chemist and a fire scientist, we have reviewed many studies which show the harmful health effects of these chemicals and their combustion byproducts. We are troubled that fire safety concerns alone have been used to justify the use of these chemicals without proper consideration of their associated costs and benefits.

**We urge the California Building Standards Commission to approve the State Fire Marshal's proposal.**

Please note that our comments are a very brief summary of a large, complex issue. We would be happy to provide you with more information or answer any questions.

Best regards,

A handwritten signature in cursive script, appearing to read "Donald Lucas".

Donald Lucas, Ph.D.

A handwritten signature in cursive script, appearing to read "David Rich".

David Rich, Ph.D.

CC: Dennis Mathisen, California State Fire Marshal