

STATE OF CALIFORNIA  
STATE AND CONSUMER SERVICES AGENCY  
CALIFORNIA BUILDING STANDARDS COMMISSION  
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Office Use Item No. \_\_\_\_\_

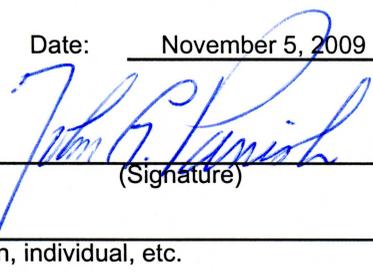
**PARTICIPATION COMMENTS FOR THE NOTICE DATED OCTOBER 2, 2009**  
Written comments are to be sent to the above address.

**WRITTEN COMMENT DEADLINE: NOVEMBER 16, 2009**

Date: November 5, 2009

From:

John G. Parrish, Ph.D., State Geologist  
Name (Print or type)

  
(Signature)

California Geological Survey

Agency, jurisdiction, chapter, company, association, individual, etc.

801 K Street, Suite 1200  
Street

Sacramento  
City

CA  
State

95814  
Zip

I/We **do not** agree with:

The Agency proposed modifications As Submitted on Section No. 3415.4

and request that this section or reference provision be recommended:

Approved    Disapproved    Held for Further Study    Approved as Amended

## Suggested Revisions to the Text of the Regulations:

**3415.4 Evaluation required.** *If the criteria in Section 3415.3 apply to the project under consideration, the design professional of record shall provide an evaluation in accordance with Section 3415 to determine the seismic performance of the building in its current configuration and condition. . . .*

**3415.4.1 Site hazard study.** *If a portion of the foundation is within a zone of potential ~~active faulting, earthquake-induced landsliding, or liquefaction susceptibility, as published by the California Geological Survey, then a site hazard study shall establish that the structure can sustain the effects of liquefaction, or landslide, or fault displacement~~ corresponding to the Level 2 performance criteria of Table 3415.5. ~~Fault displacement demands shall be permitted to be taken as the median horizontal and vertical displacements corresponding to or having the same annual probability of exceedance as the hazard specified with the Level 2 performance criteria of Table 3415.5.~~*

~~**Exception:** *Fault displacement need not be considered when no portion of the foundation is with 50 feet of a splay of an active fault.*~~

**3415.4.2 Site hazard study report.** *The site hazard study shall be documented in a report that meets the requirements of Section 1802.7.*

**Exceptions:**

*1) A new site hazard study report shall not be required if a previous geotechnical, geologic, and/or site hazard investigation report has evaluated the relevant hazards and if the previous report is approved as current.*

*2) A new site hazard study report shall not be required where the structure and foundation are shown to satisfy the performance criteria of Section 3415.5. Application of this exception requires peer review per Section 3420.*

**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.]

All references to fault displacement should be deleted. The language as currently written does not adequately acknowledge that **the Alquist-Priolo Act prohibits** substantial improvements to existing structures that lie across the trace of an active fault (see Public Resource Code, Sections 2621-2630). Therefore, the surface fault rupture aspect of the proposal **does not meet criteria 1** of Health & Safety Code Section 18930.

Furthermore, we are unaware of any accepted means of designing structures to accommodate fault displacement, which might range in magnitude from a few inches up to 30 feet laterally or 15 feet vertically on certain faults in California. Both ASCE 7-10, Section 11.8.1, and California Administrative Code (Title 24, Part 1), Chapter 6, Section 9.3.3, assume there is no reasonable means to design for surface fault rupture, and we are unaware of any published standards to support the proposed concept of designing for surface fault rupture. In addition, the hazard level specified seems inappropriate, because fault displacement on any particular fault segment is both less likely and less well understood than strong ground shaking. Therefore, the surface fault rupture aspect of the proposal **does not meet criteria 7B** of Health & 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.