

David Walls

BSCP# 11



California Precast Concrete Association

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CALIFORNIA BUILDING
STANDARDS COMMISSION

November 13, 2009

David Walls, Executive Director
CA Building Standards Commission
2525 Natomas Park Drive, Suite #130
Sacramento, CA 95833

Re: Concrete & Cement amendments to CA Green Building Code
(sections A5.405.5 – A5.405.5.3.2.3)

Dear Mr. Walls:

The California Precast Concrete (CPCA) appreciates the efforts you and your office have made to address concerns with regard to the originally proposed amendments for the concrete and cement provisions to the California Green Building Code.

CPCA is the statewide association for producers of precast concrete products in California, representing more than 60 companies with multiple production facilities in the state. Our members provide locally produced products for Caltrans, engineers, architects, contractors, and other specifiers both public and private.

We agree that the proposed code amendments should advance efforts to reduce energy inputs and increase the use and types of recycled materials in concrete production. This version expands the available recycled inputs to include not only a broader array of supplementary cementitious materials (SCMs), but also recycled aggregates and water. In addition, this version includes discretion for engineers to make adjustments as necessary for issues of structural integrity.

We offer these additional comments and recommendations.

- 1) **A5.405.5.2.1 Supplementary cementitious materials (SCM).** We greatly appreciate that specific reference to Caltrans specifications has been removed for fly ash, slag, and pozzolans (A5.405.2.1). As we mentioned in prior discussions, we had several concerns with specifically citing Caltrans specifications: the considerable differences between paving and building specifications, particularly paving specifications for a particular organization within a general building code; the newness and untested nature of the Caltrans

specifications; and the unfamiliarity of the Caltrans specifications to structural engineers, architects, and other users in the building construction industry.

Additionally, Caltrans specifications are “Construction Specifications” and as such are written to support Caltrans specific needs. Because the Green Building Code is a “Design Code,” the specifier will impose project specific limitations appropriate for the scope of work and owners requirements. By referencing Caltrans, the Green Building Commission is imposing restrictions on recycled material that could be otherwise used in less demanding applications.

We are concerned that Caltrans specifications have been reintroduced with reference to the ultra fine fly ash and metakaolin sections (A5.405.5.2.1.2 and A5.405.5.2.1.3). For the reasons given previously, we do not recommend the California Green Building Code cite individual organization’s specifications, particularly those pertaining to a different type of construction application.

Recommendation: For A5.405.5.2.1.2 and A5.405.5.2.1.3, remove all Caltrans specification references.

- 2) **A5.405.5.2.1.1 Mix Design Equation.** While Section A5.405.5.2 above includes a provision to allow discretion by an engineer and while the Mix Design Equation section also includes an exception for engineer discretion for high early strength concrete, we recommend one change to ensure the engineer has sufficient discretion in all potential instances (*changes in italics*).

We also want to reiterate that the high amounts of SCM’s required by this code will not work for all applications. We do support the proposed high volume usage because this section is in a non-mandatory portion of the code, and because an exception gives ultimate control to the design professional with a clear exception.

Recommendation: Exception: Minimums for concrete products requiring high early strength, such as Precast Concrete, *or other special architectural or design consideration* may be lower as directed by the engineer

- 3) **Industry ‘Sustainability’ Proposal.** We also greatly appreciate the consideration given by you and your office to the “sustainability” proposal presented by industry. We realize the sustainability proposal was a significant one, and that there was not sufficient time to explore all its ramifications and provide detailed examples. However, we are hopeful the Commission will give it serious consideration in the next round of code updates.

Recommendation: We encourage the Commission to consider the industry sustainability proposal in the next round of code development. We would commit to participate in such a process, and believe it should include a broad array of stakeholders, including concrete producers, precast producers, cement producers, and architectural and structural engineers.

Again, we thank you for the opportunity to work with you and your personnel. We look forward to participating in advisory and other working groups as the next cycle of Green Building Code development begins.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Zarranandia". The signature is fluid and cursive, with a long horizontal stroke at the end.

Dan Zarranandia, Pre-Con Products
President, California Precast Concrete Association

Cc: Bob Raymer – Chair, Green Building Advisory Committee