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Attachment No. 2

INITIAL STATEMENT OF REASONS

CALIFORNIA CODE OF REGULATIONS
TITLE 8: CONSTRUCTION SAFETY ORDERS
Chapter 4, Subchapter 4, Article 29, Sections 1714 and 1715

Precast Concrete Construction

PROBLEM ADDRESSED BY PROPOSED ACTION

The Division of Occupational Safety and Health (Division) submitted a Form 9, dated October 22, 1998, to the Occupational Safety and Health Standards Board requesting modification of Section 1714 of the Construction Safety Orders (CSO) to clarify that it applies to prefabricated panels, not to tilt-up panel construction. This request is the result of several inquiries the Division received regarding the applicability of CSO Section 1714 to tilt-up construction. The Division believes the word "precast" in the title of Section 1714 has caused some readers to believe both Sections 1714 and 1715 apply to tilt-up construction.

The revisions proposed by Board staff clearly indicate that Section 1714 addresses the hoisting and installation of precast, prefabricated panels, as originally intended when the regulation was first promulgated. This action will distinguish Section 1714 from Section 1715, which addresses the erection and placement of tilt-up concrete panels.

The Division submitted a second Form 9 dated December 14, 1999 requesting adoption of a new subsection 1715(e) to require adjustments of in-place panels to be in accordance with the directions of a California registered engineer. Although the proposed revisions do not specifically address the issue of requiring California registered engineer approval for panel adjustments, this proposed action addresses the Division's concern with respect to the adjustment of in-place tilt-up panels in new subsection 1715(d).

This proposal also incorporates federal language from 29 CFR 1926.704 to correct areas where the state standard is less effective than its federal counterpart.

SPECIFIC PURPOSE AND FACTUAL BASIS OF PROPOSED ACTION

This proposed rulemaking action contains numerous nonsubstantive, editorial, reformatting of subsections, and grammatical revisions. These nonsubstantive revisions are not all discussed in this section. However, these proposed revisions are clearly indicated in the regulatory text in

underline and strikeout format. In addition to these nonsubstantive revisions, the following actions are proposed:

Section 1714. Hoisting and Erecting of Precast, Prefabricated Panels.

It is proposed to add a parenthetical phrase "Other Than Tilt-up" to the title to clearly indicate these regulations apply only to precast, prefabricated panels.

Subsection (a).

A revision is proposed to insert the parenthetical phrase "the responsible engineer." This revision is necessary to clarify for the employer that the responsible engineer is intended to be a civil engineer currently registered in California.

New Subsection (a)(4).

New subsection (a)(4) is proposed to require precast or vertical panel bracing to be designed by, and installed in accordance with the direction of, the responsible engineer. This proposed action is necessary to ensure that the bracing to support the precast or vertical panel during installation and prior to permanent attachment will be installed in a manner to safely support the anticipated static loading. This requirement is also necessary to ensure the safety of the employees engaged in the installation and fastening of the panel.

New Subsection (a)(5).

A new subsection (a)(5) is proposed that will require that lifting methods and procedures be such that employees are not at risk of being struck by the panel or other supporting equipment. This proposed action is necessary to prevent employees from being put at risk of crushing or other serious injury.

Subsection (b).

Existing subsection (b) requires the panel lifting line to remain attached until all attachments shown on the erection plan are installed. This language is proposed to be replaced with a requirement that lifting inserts must be capable of supporting at least four times the maximum intended load. This proposed requirement is necessary to be at least as effective as the federal standard, 29 CFR 1926.704(c), and to ensure a safety factor exists to preclude an equipment failure from an unanticipated dynamic load. The proposed repeal of the existing language in subsection (b) is necessary because the proposed inclusion of the federal language in subsection (d) will require the panel to be supported to prevent overturning until the permanent connections are completed, which is equivalent to the provisions in existing subsection (b).

New Subsection (c).

Proposed new subsection (c), which requires a safety factor of 5, is necessary to ensure the lifting hardware used to place, lift and install the precast, prefabricated panels will not fail under anticipated and/or unexpected loading. This is necessary because failure of the lifting hardware could result in injury or death of the affected employees due to the proximity of the employees and this type of construction project.

New Subsection (d).

Proposed new subsection (d) will require precast wall units and structural framing to be supported to prevent overturning and/or collapse until permanent connections are completed. This proposed requirement is necessary to prevent the overturning and collapse of the precast, prefabricated panel, which could result in the serious injury or death of those involved with the precast installation.

Section 1715. Precast Concrete Construction, Including Tilt-Up.

It is proposed to delete the words "Precast" and "Including Tilt-Up" from the title of Section 1715. Additionally, it is proposed to insert the term "Panel" following "Concrete." These proposed revisions are necessary to clarify that Section 1715 is intended to apply to tilt-up concrete panel construction only.

Subsection (b).

Subsection (b) is proposed for revisions to substitute the term "tilt-up" for "precast," to delete the phrase "other than the tilt-up members," and to substitute "two" for "four" times the maximum intended load with respect to the lifting inserts. These proposed revisions are necessary to clarify that the regulation is intended to apply only to tilt-up concrete panel construction. The proposed revision to change the safety factor from four to two is necessary to reflect industry practice, and to be consistent with 29 CFR 1926.704(b), the federal counterpart to subsection (b), which permits a safety factor of two.

Subsection (d).

Subsection (d) is proposed for revisions to delete the references to "precast wall" and to insert a phrase to delineate the use of and to clarify why bracing is necessary. Additionally, it is proposed to substitute a requirement that the vertical bracing be designed to withstand a minimum wind load of 70 miles per hour in lieu of the existing 10 pounds per square foot wind load factor. The substitution of 70 miles per hour for 10 pounds per foot is necessary to update the regulation to be consistent with industry norms and practices, as recommended by the Tilt-up Concrete Association's TCA Guideline 5-98, "Temporary Wind Bracing of Tilt-Up Panels During Construction." The proposed repeal of the term "precast wall or" is necessary to be consistent with the proposed revisions to Sections 1714 and 1715 to clarify that Section 1714 addresses precast wall panels and Section 1715 pertains to precast "tilt-up panels."

Subsection (d)(2).

Subsection (d)(2) requires lifting methods and procedures to be conducted in such a manner as to ensure that in the event of a lifting attachment failure, employees shall not be exposed to the hazard of being struck by the panel or other supporting equipment. The requirement is proposed to be reworded to require lifting methods and procedures to be such that employees are not at risk of being struck by the panel or other supporting equipment. The proposed revision is necessary to clarify the regulation.

Subsection (d)(3).

Subsection (d)(3) requires lifting plans to be available on the job site. A revision is proposed to also require the lifting procedures to be available at the job site. This revision is necessary to clarify for the employer that both plans and procedures shall be available at the job site, consistent with the proposed requirement of new subsection (d)(4).

New Subsection (d)(4).

A new subsection (d)(4) is proposed to require field modifications to be approved by a currently registered civil engineer, and to be added to the plan and procedure available at the job site. This proposed revision is necessary to ensure the modification will not create a condition that puts employees at risk. It is also necessary to ensure information regarding the modification is available to those who will be affected by its implementation. Information regarding the modification must be on site and available to those who will be affected and responsible for its implementation to ensure the plan is implemented as approved.

New Subsection (e).

A new subsection is proposed to require tilt-up wall panels to be supported to prevent overturning, toppling and/or collapse until permanent connections are made. This proposed amendment is necessary to ensure the temporary bracing and/or supports for the tilt-up panels are not removed or disconnected before the permanent connections are made. Premature disconnection of the supports places the panel at risk of collapse, which could result in serious employee injury or a fatality.

REFERENCE TO COMPARABLE FEDERAL REGULATION

The Occupational Safety and Health Standards Board is proposing this rulemaking action pursuant to Labor Code Section 142.3, which mandates the Board to adopt regulations at least as effective as federal regulations addressing occupational safety and health issues.

In conformance with Government Code Section 11346.9(c), the Board provides the following information. Federal OSHA promulgated a regulation addressing Precast Concrete on October 5, 1989, as 29 Code of Federal Regulations, Section 1926.704. The Board is relying on the explanation of the provisions of the federal regulation in 53 Fed.Reg. 22640-22645 (June 16, 1988) as the justification for the Board's proposed rulemaking action.

DOCUMENTS RELIED UPON

- Tilt-Up Concrete Association's TCA Guideline 5-98, "Temporary Wind Bracing of Tilt-Up Concrete Panels During Construction," 1998.
- 53 Fed. Reg. 22612-22646 (June 16, 1988).
- Division Memorandum Request for Change in Existing Order (Cal/OSHA Form 9) Clarification of CSO 1714, dated October 22, 1998.
- Division Evaluation of OSHSB Petition File No # 412, dated February 25, 2000, and attachment Cal/OSHA Form 9, dated December 14, 1999.
- Letter to Robert Harrell dated October 9, 1998 from Dr. Ciofalo, Division.

These documents are available for review during normal business hours at the Standards Board Office located at 2520 Venture Oaks Drive, Suite 350, Sacramento, California.

DOCUMENTS INCORPORATED BY REFERENCE

None.

IDENTIFIED ALTERNATIVES THAT WOULD LESSEN ADVERSE IMPACT ON SMALL BUSINESSES

No adverse impact on small businesses is anticipated from the implementation of the proposed amendments. Therefore, no alternatives which would lessen the impact on small businesses have been identified.

SPECIFIC TECHNOLOGY OR EQUIPMENT

This proposal will not mandate the use of specific technologies or equipment.

COST ESTIMATES OF PROPOSED ACTION

Costs or Savings to State Agencies

No costs or savings to state agencies will result as a consequence of the proposed action.

Impact on Housing Costs

The proposal will not significantly affect housing costs.

Impact on Businesses

This proposal will not result in a significant adverse economic impact on businesses, including the ability of California businesses to compete with businesses in other states.

Cost Impact on Private Persons or Entities

The proposal will not require private persons or entities to incur additional costs in complying with the proposal.

Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under "Determination of Mandate."

Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does not impose nondiscretionary costs or savings on local agencies.

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed regulations do not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because the proposed amendments will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, these regulations do not constitute a "new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution."

The California Supreme Court has established that a "program" within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

These proposed regulations do not require local agencies to carry out the governmental function of providing services to the public. Rather, the regulations require local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, these proposed regulations do not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

These proposed regulations do not impose unique requirements on local governments. All employers - state, local and private - will be required to comply with the prescribed standards.

PLAIN ENGLISH STATEMENT

It has been determined that the proposal may affect small business. The express terms of the proposal written in plain English have been prepared by the Board pursuant to Government Code Sections 11342(e) and 11346.2(a)(1) and are available from the agency contact person named in the notice. The informative digest for this proposal constitutes a plain English overview.

ASSESSMENT

The adoption of the proposed amendments to these regulations will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No alternatives considered by the Board would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.