



September 27, 2011

VIA ELECTRONIC TRANSMISSION

Mr. Jordan Barab, Deputy Assistant Secretary
Occupational Safety & Health Administration
200 Constitution Avenue, NW
Washington, D.C. 20210

Re: California's Residential Framing Fall Protection Standard

Dear Mr. Barab:

In response to a recent email from Ms. Ellen Widess, Chief of Cal/OSHA regarding California's residential fall protection regulation, Ms. Widess mentioned Federal OSHA's ("OSHA") interests regarding California's success in applying California's residential fall protection standard. We believe that this letter assist OSHA in developing a standard for residential framing contractors in such a way that it provides safe, practical and reasonable options of protecting workers from falls. Keep in mind that this letter does not address all of the technical nuances of the California's residential fall protection regulation, Section 1716.2. Section 1716.2 incorporated best practices in the industry and created specific requirements along with specific exceptions to existing regulations to address practicality and feasibility issues with the installation of conventional and alternative fall protection methods.

First, it is important to recognize that this regulation was achieved as a result of a consensus developed through a working committee comprised of labor, management, safety professionals, interested parties, manufacturers and Cal/OSHA over nearly a three-year period. This working committee also became a large part of the rule-making advisory committee. The goal of the working committee was to ensure a safer workplace by developing a more consistent and better understood regulatory standard. We feel that the working committee conducted itself similar to a federal OSHA negotiated rule-making committee. In fact, the regulation finally adopted received absolutely no negative comments from labor or management during the hearing

or subsequent comment periods of the rule-making process. Notably, this rule making resulted in the strongest consensus of all affected and interested parties that could be achieved.

In regard to the California fall protection standard, the use of a "Fall Protection Plan" and the "Controlled Access Zones" have been virtually eliminated in California's residential framing industry. The current Federal OSHA regulations and the previous California standards contain requirements that make the use of conventional and alternative fall protection methods infeasible or, in some cases, establish a greater hazard. By addressing the issues that establish grounds for infeasibility and greater hazard arguments in the development of Section 1716.2, California has virtually eliminated the use of "Fall Protection Plans" and "Controlled Access Zones." Generally, these fall protection plans are not properly adhered to or enforced. As a result of the California standard, we have experienced far greater compliance resulting in a consistent reduction in falls in the residential construction industry. Further, consistent enforcement of the new standard has helped to create an even playing field within the industry.

In response to your inquiry, we thought it was important to share the issues discussed during the creation of the residential framing fall protection standard. For your convenience, we have also attached a copy of Section 1716.2 in its final form and a jointly developed fall protection guidebook. The following issues were discussed:

- Uniform fall height of 15 feet. Cal/OSHA personnel explained that the 15-foot fall height is not new, but is adopted from the existing fall height requirement in Construction Safety Orders Section 1669(a) for work on trusses, beams, purlins or plates. Section 1669(a) dates back to the early 1970s, and has been accepted by OSHA in the past.

The advisory committee that wrote Section 1716.2 thought it was necessary to create a uniform fall height for residential construction because of past confusion over multiple fall height requirements in the California Construction Safety Orders.

The advisory committee felt that the uniform fall height of 15 feet created a clear boundary between one-story work, which would *not* require the use of scaffolding, guardrails, or personal fall protection under the new standard; and two-story work, which clearly *would* require fall protection equipment in all cases. The existing fall height of 15 feet was relocated from T8 CSO 1669(a) to the new standard because work on the top plate, which already had a fall height of 15 feet, was the most typical fall exposure in residential construction. Joists and trusses are installed on the top plate; and at the eaves, the starter board and fascia board are also installed from the top plate. To that end, much time was spent evaluating the risks associated with the installation of the particular construction phases and exposures to falls below 15 feet as compared with the time of exposure and associated risks with installation and disassembly of fall protection equipment and the feasibility of fall protection equipment at lower levels. However, it is important to recognize that the regulation does establish best practice requirements below 15

feet.

Furthermore, Section 1716.2 specifically requires fall protection equipment over 15 feet, and eliminates the use of a Fall Protection Plan ("FPP") to be used as the alternative with very little exception.

Most importantly, insistence on fall protection equipment, rather than relying on administrative remedies like the FPP, has brought about the introduction and broad use of new types of scaffolding and fall protection equipment in California.

- Standard includes both wood and metal stud construction The new standard recognized that "light gage steel frame construction" was the same as "metal stud framing" and, as such, addresses the fall hazards and issues related to compliance with application of many fall protection options:
- Slide guard on sloped roofs. Slide guards are cleats nailed to a sloped roof to provide footing. An exception to Section 1716.2 (g)(1)(B) permits the use of slide guards for fall protection, but only on roofs that measure less than 15 feet at the eaves. This is an example of an alternative means of protection spelled out in the regulation that provides protective equipment without the use of conventional fall protection.
- Walking or climbing on joists and truss members on 24-inch centers. Exception (A) following subsection (e)(1) permits walking/working on securely braced joists, rafters or roof trusses that are on 24-inch centers. Roof trusses have almost completely replaced rafters in residential construction, except in custom homes. Roof trusses generally have web members running vertically and/or diagonally between the top and bottom chords. This design makes dragging a plank or sheet of plywood impractical and unsafe. The practice would therefore create more of a hazard than walking/crawling through the gaps in the web members without a plank or plywood.
- Walking on top plate. Section 1716.2(e) permits walking on top plate up to 15 feet above the surrounding grade or floor level without any mention of support from the surrounding trusses.

It is important to point out that where the trusses rest on the exterior walls is exactly where the top and bottom truss chords meet. Therefore, only the tails project beyond the top plate. On common roof slopes this means that the truss members are very low and afford very little use as support to prevent falling. Furthermore, "walking the top plate" is a practice common in the industry throughout the country and is currently permitted by CCR Title 8 Section 1669(a). Notably, this section was already reviewed by OSHA several years ago.

Only trusses for mansard roofs would provide any real support of this kind. Instead, Section 1716.2(e) requires scaffolding, guardrails or personal fall protection over 15 feet. However, in order to make the use of scaffold feasible, the regulation had to allow for the interior guardrails to be eliminated in order to perform the operation. In addition, the regulation addresses the distance down from the top plate the platform must be and established anchor requirements to ensure structural stability when scaffold is used as edge protection devices for fall protection.

- Framing exterior walls on second-floor decks. Work on second-floor decks is permitted by Section 1716.2(f) based on hazard analysis and feasibility issues. Cal/OSHA personnel explained that exposure to falls exists only for a short period of time because the exterior walls are raised in short order. Because the openings in stud walls are less than 18 inches wide, the exterior walls create the equivalent of guardrails, except where door or window openings create a hazard and must be covered with temporary guardrails under the new standard.

The scope (Section 1716.2(a)) clarifies the 15-foot fall height applies only to those employees directly involved with the layout and framing of the exterior walls. Clearly, it does not apply to other trades such as plumbers who want to work on the second-floor deck. These other employees will be restricted from the area until the exterior walls are raised, unless guardrails are provided as required by the existing Section 1621(a).

The 15-foot limitation means that such work is permitted on most second-story floor decks; but above that height open floor decks still require guardrails. Examples of where such decks can be found is third-story floor decks on apartment buildings, second-story floor decks on hillside lots; and second-story floor decks over some block or concrete garage structures on apartment buildings.

- Stairs, stair landings, and floor openings. OSHA complained that 1926 Subpart M and STD 3-0.1A require that all floor openings over 6 feet (not 15 feet) to be guarded. Section 1716.2(f) permits carpenters engaged in the layout and construction of the exterior walls on floor decks to work without guardrails or fall protection up to a height of 15 feet. Section 1716.2(f) does *not* assign a 15-foot fall height to other unprotected edges such as around stairwells or elevator shafts, patio decks, second floor passageways in living rooms with cathedral ceilings, passageways around stairs or elevators, etc. These are still covered by existing standards that all have a fall trigger height of 7½ feet per Section 1621. Floor holes and openings are addressed by section 1632.
- Work on starter board, fascia board and sheathing. All available anchorage points for roof structures made up of plywood or OSB on wood trusses require that the anchors be applied over roof sheathing that has been nailed or screwed down. This means that the

starter board, roof sheathing and fascia board are all installed before there is any anchorage point available on the roof. Section 1716.2(g) requires that employees performing these tasks be protected with scaffolds, guardrails or personal fall protection over 15 feet in height.

- Work permitted on gable ends. 1716(g)(3) states that when carpenters install barge rafters or fascia board on the gable ends, they will be considered protected from falling if they work from inside the gable end truss, and the truss is properly nailed in and braced. Carpenters should be able in most cases to install both the fascia and starter board from this position. But an exception follows this section to permit work outside the gable end truss if the work is of short duration and the employee is a qualified person. Fascia board fits into this category, because it must be face-nailed at the gable ends. Fascia board is generally installed by specialists who move from job to job doing nothing but this specialty work. These employees are arguably the most skilled and experienced carpenters on the project.
- Scaffold Distance from face of building. Section 1716.2(i)(3)(B) requires that the inboard edge of scaffolding used as an edge protection platform be no more than 16 inches from the building. Note that 1926.451(b)(3) requires that the maximum size of the opening between the scaffold and the face be 14 inches, not 16 inches. This change was necessary in order to make the use of metal frame scaffolds feasible to use as fall protection because of the protrusion of the rafter tails and room necessary to install fascia board.

Plasterers currently place their scaffolds 16 inches from the building in order to perform their stucco and plaster applications. As a result, requiring contractors to expose employees to the hazards of erecting the scaffold twice – once for plastering and once for framing – is impractical and creates a greater hazard.

- Guardrails on outboard edge of Edge Protection Platforms. Section 1716.2(i)(4)(C) requires that if the outboard edge of an Edge Protection Platform extends less than 12 inches beyond the eaves, guardrails must extend vertically above the eaves. OSHA personnel were concerned that this appears to imply that if the outboard edge of the platform extends *more* than 12 inches horizontally from the eaves of the adjacent roof, that *no* guardrail is necessary. This condition would be in direct contradiction of 1926.451(g)(1). This section is necessary to make it feasible for the platform to have standard scaffold guardrails. The guardrails must be a minimum of 42 inches above the outboard edge of the platform. This requirement means that if the outboard platform edge does not extend at least 12 inches or more horizontally from the eaves of the adjacent roof, those guardrails must, in addition, extend 42 inches vertically above the eaves of the adjacent roof.

We hope that the above explanation assists OSHA in its understanding of the many technical issues addressed in California's fall protection standard for residential and light commercial framing activities.

The California fall protection standard is clearly defined and understandable regulation that lead to greater compliance throughout the industry. As a result, evenhanded enforcement throughout the industry has created a safer work place for California workers and a level playing field for residential construction contractors in California. The net effect of California's fall protection standard has been a safer work environment for our employees and a reduction in falls.

If you have any questions or would like to meet to discuss these issues further, please do not hesitate to contact the undersigned.

Sincerely,

Kevin D. Bland

Cc: CFCA Board

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