

**OCCUPATIONAL SAFETY  
AND HEALTH STANDARDS BOARD**

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**NOTICE OF PUBLIC MEETING/PUBLIC HEARING/BUSINESS MEETING  
OF THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD  
AND NOTICE OF PROPOSED CHANGES TO TITLE 8  
OF THE CALIFORNIA CODE OF REGULATIONS**

Pursuant to Government Code Section 11346.4 and the provisions of Labor Code Sections 142.1, 142.2, 142.3, 142.4, and 144.6, the Occupational Safety and Health Standards Board of the State of California has set the time and place for a Public Meeting, Public Hearing, and Business Meeting:

**PUBLIC MEETING:** On **January 17, 2002**, at 10:00 a.m.  
in the Auditorium of the State Building,  
320 West 4<sup>th</sup> Street, Los Angeles, California.

At the Public Meeting, the Board will make time available to receive comments or proposals from interested persons on any item concerning occupational safety and health.

**PUBLIC HEARING:** On **January 17, 2002**, following the Public Meeting,  
in the Auditorium of the State Building,  
320 West 4<sup>th</sup> Street, Los Angeles, California.

At the Public Hearing, the Board will consider the public testimony on the proposed changes to occupational safety and health standards in Title 8 of the California Code of Regulations.

**BUSINESS MEETING:** On **January 17, 2002**, following the Public Hearing,  
in the Auditorium of the State Building,  
320 West 4<sup>th</sup> Street, Los Angeles, California.

At the Business Meeting, the Board will conduct its monthly business.

**DISABILITY ACCOMMODATION NOTICE:** Disability accommodation is available upon request. Any person with a disability requiring an accommodation, auxiliary aid or service, or a modification of policies or procedures to ensure effective communication and access to the public hearings/meetings of the Occupational Safety and Health Standards Board should contact the Disability Accommodation Coordinator at (916) 274-5721 or the state-wide Disability Accommodation Coordinator at 1-866-326-1616 (toll free). The state-wide Coordinator can also be reached through the California Relay Service, by dialing 711 or 1-800-735-2929 (TTY) or 1-800-855-3000 (TTY-Spanish).

Accommodations can include modifications of policies or procedures or provision of auxiliary aids or services. Accommodations include, but are not limited to, an Assistive Listening System (ALS), a Computer-Aided Transcription System or Communication Access Realtime Translation (CART), a sign-language interpreter, documents in Braille, large print or on computer disk, and audio cassette recording. Accommodation requests should be made as soon as possible. Requests for an ALS or CART should be made no later than five (5) days before the hearing.

**OCCUPATIONAL SAFETY AND HEALTH  
STANDARDS BOARD**

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JERE W. INGRAM, Chairman

NOTICE OF PROPOSED CHANGES TO TITLE 8  
OF THE CALIFORNIA CODE OF REGULATIONS  
BY THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

Notice is hereby given pursuant to Government Code Section 11346.4 and Labor Code Sections 142.1, 142.4 and 144.5, that the Occupational Safety and Health Standards Board pursuant to the authority granted by Labor Code Section 142.3, and to implement Labor Code Section 142.3, will consider the following proposed revisions to Title 8, Construction Safety Orders; and Title 8, Elevator Safety Orders and Title 24, Part 7, California Elevator Safety Construction Code of the California Code of Regulations, as indicated below, at its Public Hearing on **January 17, 2002**.

1. TITLE 8:        **CONSTRUCTION SAFETY ORDERS**  
Chapter 4, Subchapter 4, Article 17  
Section 1626  
**Stairwells and Stairs**
  
2. TITLE 8:        **CONSTRUCTION SAFETY ORDERS**  
Chapter 4, Subchapter 4  
Article 19, Section 1632  
Article 20, Section 1635  
Article 24, Section 1671  
Article 29, Sections 1709 and 1710, and New Section 1716.2  
**Safety Standards for Steel Erection**
  
3. TITLE 8:        **ELEVATOR SAFETY ORDERS**  
Chapter 4, Subchapter 6  
Article 7, Section 3011(d)  
Article 20, Section 3120.1  
Article 22, Section 3122.0  
  
TITLE 24:        **CALIFORNIA ELEVATOR SAFETY CONSTRUCTION CODE**  
Part 7, Article 7-7, Section 7-3011  
Article 7-20, Section 7-3120.1  
Article 7-22, Section 7-3122.0  
**Elevator Access Keys**

Descriptions of the proposed changes are as follows:

1. **TITLE 8:**        **CONSTRUCTION SAFETY ORDERS**  
Chapter 4, Subchapter 4, Article 17  
Section 1626  
**Stairwells and Stairs**

**INFORMATIVE DIGEST OF PROPOSED ACTION/POLICY**  
**STATEMENT OVERVIEW**

The Occupational Safety and Health Standards Board (Board) received a memorandum with attachments dated December 15, 1999 from the Division of Occupational Safety and Health (Division) requesting the Board to amend Section 1626 of the Construction Safety Orders (CSO) pertaining to handrail height requirements so that it will be up-to-date and consistent with the General Industry Safety Orders (GISO), Section 3214, Federal OSHA regulation 29CFR 1926.1052(c)(3), and American National Standard (ANSI) A10.18-1996.

The Division noted that ANSI construction safety requirements for construction stairways and other unprotected edges specify a railing height of 36 inches to 37 inches. Federal OSHA requires the handrails to be 36 inches in height. Section 1626 requires handrailings to be 30 inches to 34 inches above the tread nosing whereas Section 3214 specifies 34 inches to 38 inches. The Division's request was initiated by field personnel due to the discrepancy in handrail height requirements between Section 1626 and Section 3214.

The Division noted that Section 1626 is outdated and recommended that it be amended to read that handrailings, when used in conjunction with stairs, shall be not less than 34 inches or more than 38 inches above the tread nosing.

Board staff reviewed the Division's request, as well as the above-mentioned Section 3214, ANSI A10.18-1996, and 29CFR 1926.1052(c)(3). Board staff agrees with the Division that Section 1626 is outdated and should be amended.

**Section 1626. Stairwells and Stairs.**

This section consists of nine subsections and addresses the design of handrailings, use of toeboards and railings, illumination for stairways, housekeeping, etc.

Subsection (a) requires handrailings used in conjunction with stairs to be 30 inches to 34 inches above the tread nosing, constructed in substantial manner and free from protruding nails and splinters. This subsection also requires uprights to be not less than 2 inches by 4 inches or equivalent in cross section spaced not more than 8 feet apart and properly anchored with rail cross sections not less than 2 inches by 4 inches equivalent.

A revision is proposed to change the current 30 to 34 inch handrailing distance above the tread nosing to 34 to 38 inches consistent with Section 3214, ANSI A10.18-1996, and 29CFR 1926.1052(c)(3), which requires handrails to be located at heights exceeding those specified in Section 1626(a).

The effect of the proposed revision is to clearly indicate to the employer that consistent with existing GISO, Federal regulations and current national consensus standards, handrails on stairways must be located at a designated elevation above the tread nosing to provide persons using the stairway with a secure grasp of the handrail to prevent a serious fall and employee injury.

## **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 Board has made an initial determination that this proposal will not significantly affect housing costs.

### **Impact on Businesses**

The Board has made an initial determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

### **Cost Impact on Private Persons or Businesses**

The Board is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

### **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 regulation does 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 amendment will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, this regulation does 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.)

The proposed regulation does not require local agencies to carry out the governmental function of providing services to the public. Rather, the regulation requires local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, the proposed regulation does 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.)

The proposed regulation does not impose unique requirements on local governments. All employers - state, local and private - will be required to comply with the prescribed standard.

### **EFFECT ON SMALL BUSINESSES**

The Board has determined that the proposed amendments may affect small businesses.

### **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.

### **REASONABLE ALTERNATIVES CONSIDERED**

Our Board must determine that no reasonable alternative considered by the Board or that has otherwise been identified and brought to the attention of 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.

2. **TITLE 8:**        **CONSTRUCTION SAFETY ORDERS**  
Chapter 4, Subchapter 4  
Article 19, Section 1632  
Article 20, Section 1635  
Article 24, Section 1671  
Article 29, Sections 1709 and 1710, and New Section 1716.2  
**Safety Standards for Steel Erection**

### **INFORMATIVE DIGEST OF PROPOSED ACTION/POLICY STATEMENT OVERVIEW**

The Board intends to adopt the proposed 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.

The U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) promulgated regulations addressing Safety Standards for Steel Erection on January 18, 2001, as 29 Code of Federal Regulations, Subpart R, Sections 1926.750 to 1926.761. The Board is relying on the explanation of the provisions of the federal regulations in Federal Register, Volume 66, No. 12, pages 5198 to 5280, Thursday, January 18, 2001, as the justification for the Board's proposed rulemaking action.

The federal steel erection final rule is the first federal OSHA safety standard developed under the Negotiated Rulemaking Act of 1990. The rule was developed by members of the Steel Erection Negotiated Rulemaking Advisory Committee (SENRAC), representing employers and employees significantly affected by the standard. The federal standard enhances protections provided to ironworkers by addressing the hazards that have been identified as the major causes of injuries and fatalities in the steel erection industry. These hazards are associated with working under loads, hoisting, landing and placing decking, column stability, double connections, landing and placing steel joists, and falls to lower levels.

Some of the key provisions of the federal standard include the following:

Standards in 29 CFR 1926.752 are related to site layout, site-specific erection plans and construction sequence. 29 CFR 1926.753 contains hoisting and rigging requirements including crane safety for steel erection and prescribes a procedure for multiple lifts (attachment of up to five independent loads to the hoist rigging of a crane). 29 CFR 1926.754 entitled: “Structural steel assembly” provides safer walking/working surfaces by eliminating tripping hazards. 1926.754 also provides specific work practices for landing of decking bundles and fall protection from interior openings. 29 CFR 1926.755 and .756 provide general requirements for column anchorage and stability of beams and columns respectively.

29 CFR 1926.757 “Open web steel joists” provides requirements minimizing collapse of lightweight steel joists by addressing specific requirements for erection bridging and methods of attachment. This section also contains requirements for landing and placing of loads on steel joists to minimize collapse hazards.

29 CFR 1926.758 pertains to systems-engineered metal buildings and provides requirements to minimize collapse of these specialized structures. 29 CFR 1926.759 addresses the hazards of falling objects in steel erection construction. 29 CFR 1926.760 prescribes fall protection requirements for steel erection. 1926.760 also contains procedures for employers who opt to establish a controlled decking zone (CDZ) in the area of the structure over 15 feet and up to 30 feet above a lower level where metal decking is initially being installed and forms the leading edge of a work area. Deckers in a CDZ and connectors must be protected at heights greater than two stories or 30 feet, whichever is less. This section also provides that connectors between 15 and 30 feet above a lower level must wear fall protection equipment and be able to be tied off or be provided another means of fall protection. All others engaged in steel erection work that are not performing decking work in a CDZ or connecting work require fall protection at heights greater than 15 feet.

29 CFR 1926.761 contains training requirements related to fall hazards and work activities such as multiple lift rigging procedures, connector procedures and working in a CDZ.

The Board proposes to adopt regulations which are substantially the same as the federal regulation where the state does not have regulations that are “at least as effective as the federal standard” (ALAEA), except for editorial and format differences. This proposed rulemaking action also contains a number of nonsubstantive, editorial, reformatting of subsections, and grammatical revisions. These nonsubstantive revisions are not all discussed in this Informative Digest. However, these proposed revisions are clearly indicated in the regulatory text in underline and strikeout format.

The Board proposes to adopt most of the federal Subpart R amendments in Title 8, Section 1710, Structural Steel Erection. Existing Section 1710 contains some regulations that pertain not only to steel member construction but also apply to construction of other composite material and wood members. In order to reserve Section 1710 for structural steel erection requirements, several revisions editorially relocate existing requirements that are not exclusive to steel erection from Section 1710 to Section 1709 “General Requirements” and new Section 1716.2. Additionally, amendments are proposed in Sections 1632 and 1635 so that the state’s requirements in those sections are ALAEA the counterpart regulations in Subpart R.

Federal OSHA’s Subpart R – Steel Erection contains several procedures/regulations in its standard that are options for the employer. The employer may elect to implement a CDZ procedure which when implemented permits workers in a CDZ to work without fall protection up to 30 feet. The employer may also elect to implement “multiple lift rigging procedures” [1926.753(e)]. This procedure permits attachment of up to five independent loads to the hoist rigging of a crane. The State’s existing regulations are more restrictive than these optional procedures. The State is omitting these optional procedures from this proposal with plans to review these procedures in an advisory committee of affected parties. In 29 CFR 1926.752(e) “site-specific erection plan” the employer may elect to develop alternate means and methods of employee protection

pertaining to methods of erection. The site-specific erection plan permits a qualified person to determine alternate methods of erection. The State is omitting the site-specific erection plan option in this proposal as its regulation in existing Section 1710(b), proposed as 1709(d), requires a civil engineer to provide an erection plan and make determinations related to a structure's capability to support loads.

29 CFR 1926.754(c)(3) states that workers shall not be permitted to walk the top surface of any structural steel member installed after July 18, 2006 that has been coated with paint or similar material unless testing or certification based on the appropriate ASTM standard confirms that the coating has achieved a minimum average slip resistance. This requirement is not effective until the year 2006 and the state is omitting this from its proposal with plans for review and further evaluation of this regulation.

Subpart R includes a number of non-mandatory appendices lettered A through H. The State is proposing adoption of Appendix C, illustrations of bridging terminus points; and Appendix H, illustrations of double connections as Appendices A and B to Section 1710 respectively.

As shown in the California Standards Comparison (side-by-side review of the California and federal standard) many of the requirements contained in Subpart R – Steel Erection are provided for in the State's existing Construction Safety Orders (CSO) and General Industry Safety Orders (GISO). For example, most of the requirements pertaining to the operation of cranes, hoisting and rigging (1926.753) are already provided in GISO, Group 13, Cranes and Other Hoisting Equipment. Additionally, the training requirements in 29 CFR 1926.761 are provided for in the State's regulations in the CSO Section 1509 and GISO Section 3203 which set forth the requirements for Injury and Illness Prevention Programs including employee training specific to job hazards. In the paragraphs that follow a brief summary is given of those regulations where amendments are necessary to be ALAEA the federal standard, Subpart R – Steel Erection.

In CSO Section 1632(b) an amendment is made to be ALAEA as 1926.754(e)(3)(i) and 1926.502(i)(2) with respect to the strength requirements for floor and roof openings.

Safety belts are no longer permitted for fall arrest protection in both the state and federal construction standards. Therefore, amendments are proposed in Sections 1635(a)(7) and 1635(b)(2) that "fall protection" is required. These amendments will provide equivalent safety to that required by Subpart R, 1926.760(a) and Appendix G. An additional amendment is proposed for Section 1635(b)(6) to be ALAEA 1926.754(e)(4) with respect to openings adjacent to columns.

In Section 1671(a), editorial revisions only are proposed for the "exception" to reference the appropriate subsections consistent with the sequential amendments in the proposal.

For format consistency with Subpart R – Steel Erection standard, it is necessary to reserve Section 1710 for structural steel erection requirements. Therefore, in order to retain the State's requirements for wood and composite material construction, it is necessary to propose a non-substantial editorial relocation of the existing requirements in Section 1710(a), (b), and (f) to proposed Section 1709(b), (c) and (d) and revise the title of Section 1709 to "General Requirements."

With respect to paragraph 1926.750(a), the state is adopting substantially the same scope and application language in proposed Section 1710(a)(1). However, the "note" to paragraph (a) is informational only and is omitted from the proposal.

The State's language in the note to existing Section 1710(g)(5) defines ironworker steel erection activities. This language is moved from existing Section 1710(g)(5) to proposed Section 1710(a)(2) and is substantially the same as the federal description of steel erection activities contained in 1926.750(b)(1).

The federal expanded list of steel erection activities outlined in 1926.750(b)(1) and (2) includes construction activities such as but not limited to the following: plumbing; fences; gates; skylights; joint fillers; gaskets; sealants and seals; doors; windows; hardware; detention/security equipment and doors, windows and hardware; conveying systems; building specialties; building equipment; machinery and plant equipment, furnishings and special construction. Trigger heights for fall protection in structural steel erection (Section 1710) are at two stories or 30 and 15 feet, whichever is less, from the level below depending on whether a worker is involved in “connecting” work or work “other than connecting” respectively.

Including the trades listed in the above paragraph in the scope of activities for structural steel erection would make fall protection for workers involved in these activities or trades less effective than the existing requirements contained in the CSO’s Sections 1621(a) and 1670(a) which require fall protection from the ground or level below starting at 7 ½ feet. Therefore, the State omits 1910.750(b)(2) as the CSO’s Sections 1621(a) and 1670(a) provide fall protection for numerous trades and activities listed in the federal paragraph. Fall protection for structural steel work is contained in proposed Section 1710(m).

The State is proposing adoption of the same language contained in 1926.750(c) in Section 1710(a)(3) with respect to the duties of controlling contractors.

The federal standard adopts a number of new definitions in Section 1926.751. The State is proposing to adopt nearly all of these definitions without modification into proposed Section 1710(b) except where some of Subpart R’s definitions are already defined in the CSO Section 1504, Definitions, or other Title 8 regulations. Definitions associated with federal OSHA’s steel erection standard that contain procedures/regulations that are options for the employer are also omitted as the state is not adopting these employer options related to CDZs, multiple lift rigging procedures and the “site-specific erection plan” in this rulemaking. The federal definition of “project structural engineer of record” is modified slightly in the State’s definition to address that structural design work in California is required by California licensed engineers.

29 CFR 1926.752 sets forth the federal requirements for site layout, site-specific erection plan and construction sequence. The State is adopting substantially the same language in Section 1710(c) with the exception that the employer election or option to implement a site-specific erection plan [1926.752(e)] is omitted from this rulemaking. The site-specific erection plan permits the employer or qualified person to provide an alternative erection method and or determine that the structure can support loads such as the placement of decking bundles. The State believes its existing requirements are more effective than these optional alternative methods which are addressed in the erection plan and procedure prepared by an engineer as required by existing Section 1710(b), proposed as Section 1709(d).

The State’s regulations in Title 8, especially GISO, Group 13, Cranes and other hoisting equipment, contain equivalent regulations to most of those in 29 CFR 1926.753 “Hoisting and rigging.” However, the State is proposing a new Section 1710(d) “Hoisting and rigging” subsection (d)(1) through (d)(4) to address ALAEA issues to the regulations in 29 CFR 1926.753.

The existing regulations in Title 8 (outlined in the California Standard’s Comparison) contain a number of regulations equivalent to those contained in 29 CFR 1926.754 “Structural Steel Assembly.” Additionally, as outlined in the California Standard’s Comparison rationale for this federal section, a number of amendments were necessary to existing Title 8 regulations as well as proposed verbatim adoption of new requirements contained in the federal standard for the state to be ALAEA the federal standard.

In the federal standard, Sections 1926.755 “Column anchorage” and 1926.756 “Beams and columns,” the State is proposing substantially the same language in proposed Sections 1710(f) and (g) respectively, except that the federal reference to non-mandatory Appendix F is omitted.

29 CFR 1926.757 “Open web steel joists” is proposed for adoption in the State’s standard with substantially the same language including the erection bridging Tables A & B in Section 1710(h). In Section 1710(h)(1)(D) the State is adopting substantially the same language as the federal counterpart regulation 1926.757(a)(4) with the exception that the reference to an alternative method of erection included in the site-specific erection plan is omitted since the State is not proposing adoption of the “site-specific erection plan” employer option. The State is proposing adoption of federal OSHA’s Appendix C, Illustrations of bridging terminus points, as Appendix A to Section 1710.

29 CFR 1926.758 “Systems-engineered metal buildings” is proposed for adoption in the State’s standard with substantially the same language in Section 1710(i) with the exception of 1926.758(g) which states that purlins and girts shall not be used for a fall arrest system unless written approval is obtained from a qualified person. 1926.758(g) is omitted from the proposal as the Board believes CSO Section 1670 is more effective in that it contains extensive and specific strength requirements for anchorages used in fall protection.

29 CFR 1926.759 “Falling object protection” is proposed for adoption in the State’s standards as Section 1710(j).

Fall protection requirements in the federal standard are contained in 29 CFR 1926.760. The State has counterpart fall protection regulations in proposed Sections 1710(l) and (m). However, amendments (including nonsubstantial editorial revisions) are necessary to proposed Sections 1710(l) and (m) to be ALAEA the federal standard. Proposed amendments to Sections 1710(l) and (m) are outlined in the following paragraphs:

In Section 1710(l)(2) the term “safety belt” protection is replaced with “approved fall” protection (see the rationale provided on page 3 regarding the same proposed amendments for Section 1635(a)(7) and Section 1635(b)(2)). An additional amendment for Section 1710(l)(2) when safety nets are required, proposes that safety nets shall be installed and maintained whenever the potential fall distance exceeds “two stories” or 30 feet “whichever is less.” This amendment is for consistency with the requirements for the use of nets as provided for in 1926.754(b)(3).

Amendments are made to Section 1710(l)(3) to be ALAEA Subpart R, 1910.760(a)(2). The federal standard requires perimeter safety cables when “metal decking” has been installed at all floor levels. Therefore, the term “temporary” metal decking is deleted from proposed 1710(l)(3). Also, deleting the reference to “or portion of a building exceeding 30 feet in height” removes any incorrect inference that wire rope (safety cables) are only required at heights exceeding 30 feet.

New Section 1710(l)(4) and (5) containing requirements for metal decking holes and openings are proposed to provide verbatim requirements to 29 CFR 1926.754(e)(2) and (e)(2)(iii).

The exception in Section 1710(l)(6) is proposed for deletion to be ALAEA the federal counterpart standard in 1926.754(b)(3) which has no exception. In Section 1710(l)(6)(B) the term “safety belts with safety lines” is proposed for deletion and will be replaced with the proposed term “approved personal fall protection devices” for consistency with the previously explained amendments to Sections 1635(a)(7), 1635(b)(2) and 1710(l)(2).

The requirements in existing Section 1710(f) regarding wood floor construction are relocated with a revised subsection title to Section 1709(c) for reasons explained on pages 3 and 4.

In 29 CFR 1926.760(b)(1) connectors are required to be protected from fall hazards of more than two stories or 30 feet above a lower level, whichever is less. Amendments are proposed in Sections 1710(m)(1) and 1710(m)(3)(A) and (B) to be ALAEA the federal standard.

With respect to fall protection for connectors, it is noted that the federal language in 1926.760(b)(3) requires that connectors shall be provided (at heights over 15 feet and up to 30 feet) with a personal fall arrest system, positioning device system or fall restraint system and wear the equipment necessary “to be able to be tied off,” or be provided with other means of fall protection. However, the language does not require the fall protection equipment to be used. Therefore, use of the equipment for fall protection is unenforceable as there is an option by the employee to use it. The State is omitting this language for the reasons stated above.

In order that proposed Section 1710(m)(4) is consistent with the CSO, Section 1670 and that it is ALAEA the strength requirements for fall protection systems/devices contained in Subpart R, Appendix G [1926.502(b) –(e)], a revision is proposed that lines used to secure workers be used in accordance with the CSO, Section 1670.

Section 1710(m)(5) in part states that nets shall meet the requirements set forth in accordance with Sections 1671 and 1672. The reference to Section 1672, “Tests” in Section 1710(m)(5) has been repealed as the requirements for safety nets are currently contained solely in Section 1671. Therefore, an editorial revision deletes the outdated reference on Section 1672. Additionally, the note in Section 1710(m) defines the scope of ironworker steel erection activities. The language in the note has been editorially revised and moved to fit the format of the scope and application section of the State’s standard, Section 1710(a)(2).

29 CFR 1926.760(e) “Custody of fall protection” is proposed for adoption in Section 1710(n). 29 CFR 1926.754(e)(3)(iv) regarding the strength requirements for smoke dome or skylight fixtures is proposed for adoption in Section 1710(o).

Existing Section 1710(h) provides that employees working on buildings or other structures with large, open spans or areas, such as mill buildings, gymnasiums, auditoriums, hangars, arenas, stadiums and bridges, shall be protected from the hazard of falling in accordance with Sections 1669, 1670 and 1671 when the fall height exceeds 30 feet. The federal standard, Subpart R – Steel Erection, does not contain an exception to permit workers (performing duties other than connecting work) to be unprotected from falls up to 30 feet on structures such as but not limited to gymnasiums, auditoriums and mill buildings etc. Therefore, Section 1710(h) is proposed for deletion.

In order that Section 1710 be reserved for structural steel erection regulations, existing Section 1710(i) pertaining to wood structures is editorially moved to new Section 1716.2.

The proposed regulations are substantially the same as the final rule promulgated by federal OSHA. Therefore, Labor Code Section 142.3(a)(3) exempts the Board from the provisions of Article 5 (commencing with Section 11346) and Article 6 (commencing with Section 11349) of Chapter 3.5, Part 1, Division 3 of Title 2 of the Government Code when adopting standards substantially the same as a federal standard; however, the Board is still providing a comment period and will convene a public hearing. Written and oral comments may be made at the public hearing with respect to the following: 1) to identify any clear and compelling reasons for California to deviate from the federal standard; 2) to identify any issues unique to California related to this proposal that should be addressed in this rulemaking and/or a subsequent rulemaking; and, 3) to solicit comments on the proposed effective date.

Federal Register, Volume 66, No. 137, Tuesday, July 17, 2001 extends the effective date of the federal regulation from the original date of July 18, 2001 to the new effective date of January 18, 2002. A number of provisions in the federal final rule address the safety of certain structural components for steel erection structures. These “component requirements” contain new design requirements for components to ensure that structures can be erected safely. The following provisions outline design component requirements identified by federal OSHA to address the structural safety of certain structural components:

§ 1926.754(c)(1)(i) prohibits shear connectors on members before they are erected.

§ 1926.755(a) requires all columns to be anchored by a minimum of 4 anchor bolts, which must meet specified strength requirements [there is a similar comparable requirement for systems-engineered metal buildings in § 1926.758(b)].

§ 1926.756(c)(1) provides requirements for double connections [there is a similar comparable requirement for systems-engineered metal building in § 1926.758(e)].

§ 1926.756(d) requires column splices to be at a specified height and meet specified strength requirements.

§ 1926.756(e) requires perimeter columns to have holes or other devices for perimeter safety cables.

§ 1926.757(a)(1)(i) for certain installations, requires a vertical stabilizer plate to stabilize steel joists.

§ 1926.757(a)(3) requires certain joists to be strong enough to allow one employee to release the hoisting cable without the need for erection bridging.

§ 1926.757(a)(8)(i) requires certain joists to be fabricated for field bolting during erection.

Federal OSHA indicates that since publication of the final rule a number of employers in the steel erection industry have asked how the final rule design (“component requirements”) listed above will apply to construction projects in various stages of completion in relation to the effective date of the regulation. In the Federal Register dated July 17, 2001, federal OSHA states that where a building permit was obtained before the final rule was published (January 18, 2001), or for those projects where steel erection commenced prior to September 16, 2001, the component requirements referred to above will not apply to the project.

The effective date of this structural steel erection rulemaking for California is anticipated for March of 2002. With respect to requirements for the design “component requirements” listed above, if the project was permitted, or steel erection commenced prior to the effective date of the regulation, the design “component requirements” will not apply to the project.

### **COST ESTIMATES OF PROPOSED ACTION**

Federal Register, Volume 66, No. 12, Thursday, January 18, 2001, Preamble Section V, indicates that according to the Bureau of Labor Statistics (BLS) injury census data for the period 1994-1998, an average of 35 fatalities and 2,279 lost-workday injuries annually involve circumstances that will be addressed by the provisions in the final federal OSHA steel erection standard. Federal OSHA anticipates that the final standard will significantly reduce the number of accidents and fatalities currently reported in the steel erection industry.

Federal OSHA estimates the annualized compliance costs of the standard will total approximately 78.4 million dollars for employers to provide and/or implement, fall arrest systems, personnel nets, guardrails, anchor rods (bolts), joist erection, slip resistant surfaces, concrete curing tests, training and record keeping. Expenditures for slip-resistant coatings of skeletal structural steel [29 CFR 1926.754(c)(3)] are expected to total 29.5 million dollars or 38 percent of the total estimated cost of 78.4 million dollars. It should be noted that the federal requirement for slip-resistant coatings of skeletal structural steel contained in 1926.754(c)(3) will not become effective until July 18, 2006. Because of its extended future effective date, California is omitting the requirements for slip-resistant coatings in this proposal until such time that further review and evaluation of these requirements can be achieved.

Data compiled from the California Almanac and the statistical abstract of the United States indicates that the California civilian labor force is approximately 12 percent of the national civilian labor force. Therefore, a 12 percent ratio can be reasonably used to determine California’s share of the federal national cost figure.

After deducting the expected costs of 29.5 million to comply with slip-resistant coatings for structural steel from the national total estimated costs of 78.4 million dollars, it is expected that California's total estimated cost for this proposal (reflected as 12 percent of the national cost) would be 5.9 million dollars.

Federal OSHA used a number of Standard Industrial Codes (SIC) other than SIC 1791 (structural steel erection) in estimating total costs of the final rule. OSHA indicates this is because contractors primarily engaged in construction activities other than steel erection, sometimes have employees engaged in steel erection work. Federal OSHA examined the potential economic impacts of the final standard by making two assumptions used by economists to determine the range of possible impacts. The first assumes a "highly unlikely" worst-case scenario that no costs would be passed on to customers. The second assumes that affected firms would pass all compliance costs on to customers. In Table 5, (page 5758 of the Preamble) federal OSHA estimated the potential economic impact of the final rule on selected sectors within the construction industry. Federal OSHA estimates if affected firms in SIC 1791, Structural Steel Erection, were forced to absorb compliance costs entirely from profits "a highly unlikely scenario," profits would be reduced by an average of 6.5 percent. If affected firms in SIC 1791 were able to pass compliance costs to customers, costs of compliance would be less than 1 percent (0.39 percent). According to federal OSHA, the cost of compliance for the construction sector as a whole in either a best or worst-case scenario is estimated to be minimal at less than 1 percent of revenues.

In Table 6, (page 5259 of the Preamble), federal OSHA estimated economic impacts of the final rule on small firms in the steel erection industry under worst-case conditions. Federal OSHA estimates if compliance costs were fully passed to customers that compliance costs as a percent of revenue for small and large firms would be less than 1 percent. Under the alternate cost scenario of full cost profit absorption "an extremely unlikely scenario" among steel erection contractors with 99 or fewer employees, profit impacts would be 6.3 percent; and for firms with one to nine employees, profit impacts would be 9.3 percent.

However, federal OSHA's "worst-case" cost impact for small employers may be somewhat overstated as OSHA believes it would be an "extremely unlikely scenario" and OSHA indicates that most small steel erector firms will, along with the rest of industry, receive economic benefits from compliance with the final rule. For example, Table 3 (page 5256 of the Preamble) estimates potential cost savings as a result of compliance with the final rule nationwide to be approximately 29.1 million dollars. California's estimated 12 percent share of these cost savings from full compliance would be 3.5 million dollars. Therefore, in addition to saving lives and improving overall safety in the steel erection industry, federal OSHA anticipates that most small firms will ultimately experience minimal economic impacts as a result of implementation of the final rule. It can be reasonably expected that California firms will realize the same cost savings and experience minimal economic impacts as a result of this rulemaking action.

### **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 this regulation does 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.)

The 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.

### **EFFECT ON SMALL BUSINESSES**

The Board has determined that the proposed amendments may affect small businesses. See the discussion and rationale regarding economic impact for small firms under the heading above, "Cost Estimates of Proposed Action."

### **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.

### **REASONABLE ALTERNATIVES CONSIDERED**

Our Board must determine that no reasonable alternative considered by the Board or that has otherwise been identified and brought to the attention of 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.

3. **TITLE 8:** **ELEVATOR SAFETY ORDERS**

Chapter 4, Subchapter 6  
Article 7, Section 3011(d)  
Article 20, Section 3120.1  
Article 22, Section 3122.0

**TITLE 24:** **CALIFORNIA ELEVATOR SAFETY CONSTRUCTION CODE**

Part 7, Article 7-7, Section 7-3011  
Article 7-20, Section 7-3120.1  
Article 7-22, Section 7-3122.0  
**Elevator Access Keys**

### **INFORMATIVE DIGEST OF PROPOSED ACTION/ POLICY STATEMENT OVERVIEW**

Section 3011(d) of the Elevator Safety Orders (ESO) requires that elevator machine rooms or enclosures be secured against unauthorized access. To comply with the security requirement, the doors that provide access to the elevator machine rooms and enclosures are key locked by the elevator owner or elevator management firm contracted by the owner.

No requirements exist in the ESO that specify where the door keys to access the elevator machine rooms or enclosures are to be kept. Often the keys are kept in the building manager's office where the elevators are located or in buildings off site from where the elevator is located, such as the office of the elevator contractor that services the elevator.

It is essential that keys be readily available for the Division elevator inspectors since they require access to the machine rooms and enclosures to inspect the elevator machinery and control equipment during the annual inspection to issue the permit to operate.

The Division proposes Sections 3011, 3120.1 and 3122.0 of the ESO be amended to require that the door keys for the machine rooms and enclosures be kept in a designated location in the elevator pit. The elevator pit is the most logical place since elevators covered by this proposal have a pit area readily accessible to Division inspectors and authorized elevator maintenance/service contractor personnel.

The Informative Digest of Proposed Action/Policy Statement Overview contains occupational safety and health regulations that are building standards for codification in Title 24, Part 7, California Elevator Safety Construction Code. The building standards are herein identified by their Title 24 section number in **bold** type.

This proposed rulemaking action also contains editorial and formatting revisions. These non-substantive revisions are not discussed in this informative digest. However, these proposed revisions are clearly indicated in the regulatory text in underline and strikeout format. The following actions are proposed:

**Section 3011. Machine Rooms and Machinery Spaces.**  
**Subsection (d)(1)(D)**

Proposed Section 3011(d)(1)(D) specifies that keys to access the elevator machine rooms and machinery space enclosures shall be kept in the elevator pit. The keys shall be properly identified and located near the pit stop switch accessible from the pit access door. In buildings with banks of multiple elevators the keys shall be kept in the elevator pit of the elevator with the lowest state identification number.

**(Title 24, Part 7, Section 7-3011)**

The proposal will require the elevator owner or the elevator management firm contracted to maintain the elevator to ensure that the keys for the doors that provide access to the elevator machine rooms and enclosures are kept in the elevator pit at the designated location. In buildings with multiple elevators the building owner or management firm shall ensure that the keys are located in the elevator pit of the elevator with the lowest state identification number issued by the Division. This requirement applies to elevators installed prior to October 25, 1998.

**Section 3120.1. Machine Rooms and Machinery Spaces.**  
**Subsection (a)**

Existing subsection (a) applies to electric elevators installed after October 25, 1998. It requires that machine rooms and machinery spaces comply with Sections 3011(b)(3), 3011(e)(2)(D), 3011(f)(2), 3011(g), and 3011(h).

**(Title 24, Part 7, Section 7-3120.1)**

The proposal requires that machine rooms and machinery spaces comply with the sections indicated above and Section 3011(d)(1)(D), which clarifies that the keys shall be kept in the elevator pit, or in the case of multiple elevators, in the elevator with the lowest state identification number, next to the pit stop switch.

This proposal requires the owners of electric elevators or the elevator management firm to ensure that the keys to the doors that access the elevator machine rooms and enclosures are kept in the designated place in the elevator pit pursuant to Section 3011(d)(1)(D) for electric elevators installed after October 25, 1998.

**Section 3122.0. Hoistway, Hoistway Enclosures, and Related Construction.**  
**Subsection (a)**

Existing subsection (a) applies to hydraulic elevators installed after October 25, 1998. Subsection (a) specifies that machine rooms and machinery spaces shall comply with Sections 3050(b)(7) and 3050(b)(8).

**(Title 24, Part 7, Section 7-3122.0)**

This proposal requires that machine rooms and machinery spaces comply with the sections indicated above and Section 3011(d)(1)(D).

The proposal requires the owners of hydraulic elevators or the elevator management firm to ensure that the keys to the doors that access the elevator machine rooms and enclosures are kept in the designated place in the elevator pit pursuant to Section 3011(d)(1)(D) on hydraulic elevators installed after October 25, 1998.

**COST ESTIMATES OF PROPOSED ACTION**

**Cost 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 Board has made an initial determination that this proposal will not significantly affect housing costs.

**Impact on Businesses**

The Board has made an initial determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

**Cost Impact on Private Persons or Businesses**

The Board is not aware of any cost impacts that a representative private persons or business would necessarily incur in reasonable compliance with the proposed action.

**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 Saving 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.)

The 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, the 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.)

The 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.

### **EFFECT ON SMALL BUSINESSES**

The Board has determined that the proposed amendments may affect small businesses.

### **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.

### **REASONABLE ALTERNATIVES CONSIDERED**

Our Board must determine that no reasonable alternative considered by the Board or that has otherwise been identified and brought to the attention of 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.

There are building standards contained in the proposed revisions as defined by Health and Safety Code Section 18909.

A copy of the proposed changes in STRIKEOUT/UNDERLINE format is available upon request made to the Occupational Safety and Health Standard Board’s Office, 2520 Venture Oaks Way, Suite 350, Sacramento, CA 95833, (916) 274-5721. Copies will also be available at the Public Hearing.

An INITIAL STATEMENT OF REASONS containing a statement of the purpose and factual basis for the proposed actions, identification of the technical documents relied upon, and a description of any identified alternatives has been prepared and is available upon request from the Standards Board’s Office.

Notice is also given that any interested person may present statements or arguments orally or in writing at the hearing on the proposed changes under consideration. It is requested, but not required, that written comments be submitted so that they are received no later than January 11, 2002. The official record of the rulemaking proceedings will be closed at the conclusion of the public hearing and written comments received after 5:00 p.m. on January 17, 2002 will not be considered by the Board unless the Board announces an extension of time in which to submit written comments. Written comments should be mailed to the address provided in the following paragraph or submitted by fax at (916) 274-5743 or e-mailed at

[oshsb@hq.dir.ca.gov](mailto:oshsb@hq.dir.ca.gov). The Occupational Safety and Health Standards Board may thereafter adopt the above proposal substantially as set forth without further notice.

The Occupational Safety and Health Standards Board's rulemaking file on the proposed actions including all the information upon which the proposals are based are open to public inspection Monday through Friday, from 8:30 a.m. to 4:30 p.m. at the Standards Board's Office, 2520 Venture Oaks Way, Suite 350, Sacramento, California 95833.

The full text of proposed changes, including any changes or modifications that may be made as a result of the public hearing, shall be available from the Executive Officer 15 days prior to the date on which the Standards Board adopts the proposed changes.

Inquiries concerning either the proposed administrative action or the substance of the proposed changes may be directed to John D. MacLeod, Executive Officer, or Michael Manieri, Principal Safety Engineer, at (916) 274-5721.

You can access the Board's notice and other materials associated with this proposal on the Standards Board's homepage/website address which is <http://www.dir.ca.gov/oshsb>. Once the Final Statement of Reasons is prepared, it may be obtained by accessing the Board's website or by calling the telephone number listed above.

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JERE W. INGRAM, Chairman