

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833
(916) 274-5721
FAX (916) 274-5743
www.dir.ca.gov/oshsb



Attachment No. 2

INITIAL STATEMENT OF REASONS**CALIFORNIA CODE OF REGULATIONS****TITLE 8: LOW VOLTAGE SAFETY ORDERS**

Chapter 7, Subchapter 5, Article 3, Section 2320.2(a) and

HIGH VOLTAGE SAFETY ORDERS

Article 36, Section 2941(f),

**Electrical Worker Apparel and Use of a Ground-Based Observer When Performing
Rubber Gloving Operations on Energized Conductors/Equipment****SUMMARY**

The Occupational Safety and Health Standards Board (Board) received a memorandum dated April 12, 2000 from the Chief of the Division of Occupational Safety and Health (Division) requesting that the Federal OSHA requirement regarding electrical worker apparel, outlined in 29 CFR 1910.269(l)(6) of the Electric Power Generation, Transmission and Distribution; Electrical Protective Equipment, Final Rule, be adopted into the Low Voltage Electrical Safety Orders (LVESO). The Division stated that the scope of Federal OSHA's Final Rule on this issue, published in the Federal Register dated Monday, January 31, 1994, includes both high and low voltage applications.

Existing Section 2940.6(j) of the High Voltage Electrical Safety Orders requires that employers are to ensure that each employee who is exposed to the hazards of flames and electric arcs does not wear apparel that when exposed to flames or electric arcs will increase the extent of injuries sustained by the employee. The existing Low Voltage Electrical Safety Orders, however, only require that an employee wear "suitable personal protective equipment" and does not specifically address the use of fire retardant apparel when the employee is exposed to the hazards of flames and electric arcs while working on exposed energized parts of equipment or systems.

The proposed amendment to Section 2320.2 of the LVESO provides language essentially verbatim of what is already contained in the HVESO and 29 CFR 1910.269(l)(6), and will render the Electrical Safety Orders at least as effective as the federal standard with regard to the apparel worn by employees exposed to flames and/or electric arcs.

The second part of this proposed rulemaking action is in response to a petition request, dated April 15, 1999, submitted by the International Brotherhood of Electrical Workers (IBEW), Local 1245 (OSHSB Petition File No. 398). The petition's proposal consists of an amendment to

Section 2941(f)(1) of the HVESO to add a new subsection requiring a trained, ground-based observer to be present whenever employees are performing rubber gloving operations on primary conductors or equipment energized in excess of 7,500 volts. The ground-based observer, through his/her training and location on the ground with access to the lower controls of aerial devices/digger derricks, will be able to render immediate assistance (i.e., lower the employee to the ground) in the event an employee is injured or otherwise incapacitated when rubber gloving energized conductors/equipment.

The proposed amendments to the LVESO and the HVESO were prepared with the assistance of an advisory committee which included representatives from the IBEW, the utility industry, and electrical contractors.

SPECIFIC PURPOSE AND FACTUAL BASIS OF PROPOSED ACTION

Section 2320.2. Energized Equipment or Systems.

Section 2320.2 contains the pre-work and post-work requirements for work to be performed on energized equipment or systems.

Subsection (a) contains several requirements addressing safe work practices/procedures for employees working on energized parts of equipment or systems including, but not limited to: responsible supervision of work performed on energized equipment/systems, employee instructions, and use of personal protective equipment.

Proposed new subsection (a)(7), which is essentially verbatim of Section 2940.6(j) of the HVESO and 29 CFR 1910.269(l)(6), requires each employee, exposed to the hazards of flames or electric arcs, to wear apparel that when exposed to flames or electric arcs will not increase the extent of injury sustained by the employee. The proposed new subsection prohibits clothing made from acetate, polyester, nylon or rayon, either alone or in blends, unless the employee can demonstrate that their garment(s) have been treated with a fire retardant.

Proposed subsection (a)(7) is necessary to ensure that employees wear clothing constructed of material(s) that will not increase the extent of injuries incurred as a result of exposure to flames or electric arcs.

Section 2941. Work on or in Proximity to Overhead High Voltage Lines.

Section 2941 contains regulations pertaining to work performed on, or in proximity to, overhead high voltage lines including, but not limited to: access to insulators, riding span wires, inspections, pole steps, and grounding de-energized conductors or equipment.

Subsection (f) addresses the requirements for work performed on conductors or equipment energized at 600 volts or more.

Subsection (f)(1) requires employees to wear suitable insulating gloves with protectors or other suitable protective devices when touching or working on exposed energized conductors or equipment. Subsection (f)(1) also requires gloves to be labeled as meeting the American Society of Testing of Materials (ASTM) D120-95 standards appropriate to the voltages to be encountered. This regulation also prohibits the use of rubber gloves when working on conductors or equipment energized in excess of 21,000 volts.

Proposed new subsection (f)(1)(D) will require the presence of a ground-based qualified person trained in CPR/First Aid, radio procedures, and use of aerial device/digger derrick positioning controls and rescue procedures for emergency purposes.

The proposed regulation is necessary to ensure that employees working aloft and performing rubber gloving on high voltage conductors/equipment from an aerial lift/digger derrick will be able to be brought down to the ground so that immediate medical assistance can be rendered.

DOCUMENTS RELIED UPON

1. Federal Register, Part II, Department of Labor, Occupational Safety and Health Administration, 29 CFR Part 1910, Electric Power Generation, Transmission, and Distribution; Electrical Protective Equipment; Final Rule; Volume 59, No. 20, dated Monday, January 31, 1994, pages 4320-4476.
2. Petition request from Mr. Art Murray, Business Representative, International Brotherhood of Electrical Workers (IBEW), Local Union 1245, dated April 15, 1999 (OSHSB Petition File No. 398).
3. OSHSB Petition File No. 398 Proposed Decision, dated September 16, 1999.

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

REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE IMPACT ON SMALL BUSINESSES

No reasonable alternatives were identified by the Board and no reasonable alternatives identified by the Board or otherwise brought to its attention would lessen the impact on small business.

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

Board staff is not aware of any state employees who conduct rubber gloving of exposed energized conductors at 7,500 volts or more. Rubber gloving is typically a utility industry operation not normally conducted by state employees. Therefore, no costs or savings to state agencies will result as a consequence of the proposed action pertaining to the requirement of a ground-based observer.

Likewise, work performed on energized conductors/equipment operating at voltages capable of generating hazardous arcs or flames is conducted primarily by outside electrical contractors (electricians) and not by state employees. Therefore, Board staff expects any cost impact to be insignificant.

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 Entities

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. The wearing of apparel composed of fabrics which will not exacerbate injury to the skin in the event of contact with flames or electric arcs appears to be consistent with existing workplace practice. Electrical contractors, electricians, qualified electrical workers, etc., have generally accepted the practice of not wearing clothing composed of synthetic fibers such as acetate, nylon, polyester, and rayon. Therefore, the cost impact to businesses performing electrical work on a contractual basis resulting from having to switch to apparel that conforms to the proposed amendment to Section 2320.2 is expected to be insignificant in comparison to the total cost of doing business.

In addition, testimony received during the July 12, 2000 Advisory Committee that reviewed the proposal suggests that the use of a ground-based trained observer during rubber gloving operations is generally a current and accepted practice with a number of California utility companies. Therefore, no significant cost impact, in comparison to the overall costs associated with conducting rubber gloving operations, is expected.

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 non-discretionary 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, 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.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendments may effect 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.

ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that 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.