

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833
(916) 274-5721
FAX (916) 274-5743

ATTACHMENT NO. 3**INITIAL STATEMENT OF REASONS**

CALIFORNIA CODE OF REGULATIONS

TITLE 8: Chapter 4, Subchapter 5, Article 40 (new), Sections 2980-2983 of the
High-Voltage Electrical Safety Orders

Electronic News Gathering (ENG)SUMMARY

Existing Title 8 Safety Orders do not specifically address the hazards associated with the operation of electronic news gathering vehicles equipped with elevating masts and/or antennas capable of being extended into or near high-voltage power lines. Such vehicles are increasingly being used for television and radio live, on-location news, as well as for taping and relaying news, sporting, and other live events on location for broadcast or closed-circuit use and for electronic field production. Some public safety organizations also utilize microwave mast equipped vehicles.

This rulemaking is the direct result of a petition to the Board from five Southern California labor union locals, representing over 40,000 workers in the radio and television industry. The petition (OSHSB File No. 422) was initiated as a result of a microwave mast accident that occurred on May 22, 2000, in Hollywood, wherein the microwave mast of an ENG vehicle was inadvertently extended into overhead power lines energized at 34,500 volts phase-to-phase (19,980 volts phase-to-ground). The reporter assigned to the vehicle received third-degree burns when she exited the vehicle while it was in contact with the high-voltage lines and she subsequently lost her right foot and left hand, as well as portions of her left foot and right hand.

In the same month that this accident occurred, three members of an ENG crew in Alexandria, VA were injured when the mast of their vehicle made contact with high-voltage electric power lines. Also in May 2000, an ENG photographer in Cedar Rapids, IA was reported to have been critically injured when the mast of his microwave news van came into contact with an overhead high-voltage power line. Other accidents of a similar nature have occurred over the years as evidenced by OSHA accident inspection reports. Such accidents usually result in severe burns, dismemberment, or death to the ENG vehicle crew, and can present a danger to pedestrians near

the vehicle through a phenomenon known as step-potential wherein the ground under and around the vehicle in contact with high-voltage power lines becomes energized by current flowing to ground.

The petition proposed a safety standard for ENG consisting of nine elements. On January 18, 2001, the Standards Board granted the petition to the extent that it directed Staff to convene an advisory committee to consider seven of the proposed elements. In addition, the Board recommended that the advisory committee should evaluate clarifying the application of the Telecommunication Safety Orders (TCSO), Section 8600, with regard to ENG operations.

The regulations being proposed were developed in conjunction with an ENG Advisory Committee that was held on June 12-13, 2001, and a Subcommittee on training that met on July 18, 2001. The ENG Advisory Committee consisted of a broad spectrum of participants from broadcast news organizations, labor, ENG vehicle manufacturers, electric utilities, and interested government agencies.

The Advisory Committee determined that the inclusion of the ENG regulations in the TCSO would be inappropriate because TCSO Section 8600(d) requires that all work performed under the provisions of the TCSO be performed under the direction of Qualified Telecommunications Workers or Qualified Electrical Workers trained in the operations involved. This is inconsistent with common practice in the ENG industry; furthermore, ENG crews do not normally work in close proximity to high-voltage power lines as telecommunications workers do.

Many of the proposed equipment requirements for ENG are already voluntarily being provided in vehicles currently being manufactured. A period of one year from the effective date of this regulation is permitted for vehicle manufacturers to implement any changes in production practices that may be necessary to make newly manufactured vehicles fully compliant. A period of two years from the effective date of the regulations will be permitted for existing, non-compliant vehicles to be retrofitted. The cost of compliance for new vehicles is estimated at \$1500 per vehicle. Costs of retrofitting existing vehicles can vary widely depending on the age and manufacture of the vehicle; however, assuming a worst case where the existing vehicle has none of the required provisions, the cost of the retrofit is estimated to not exceed \$3000 per vehicle, including parts and labor. These costs are minor compared to the suffering caused by electrical accidents.

Not only will the proposed regulations improve the safety of working conditions for the ENG crew, but they will also provide an improved level of safety for public safety workers and members of the public in the vicinity of ENG vehicles by greatly reducing the hazard of accidental contact with high-voltage power lines.

Authority for this rulemaking is found in Labor Code, Section 142.3.

SPECIFIC PURPOSE AND FACTUAL BASIS OF PROPOSED ACTION

Article 40. Electronic News Gathering.

This Article is an entirely new Article in the High-Voltage Electrical Safety Orders.

Section 2980. Definitions.

This section includes definitions for “Electronic News Gathering (ENG)” and “ENG Vehicle,” which are necessary to define the scope of the regulations and for proper application of the proposed regulations.

Section 2981. Provisions for Preventing Accidents Due to Operation of Electronic News Gathering Vehicles in Proximity of Overhead Power Lines.

This section contains requirements for ENG vehicle safety devices, a vehicle safety manual, and prescribes effective dates for application of the regulation. Specific provisions of Section 2981 are as follows:

Subsection (a) Constant pressure mast switches:

This subsection requires means to prevent raising or rotating the elevating antenna or dish unattended. ENG vehicles already have a switch for elevating antenna; however, this regulation will require a switch that will require constant attendance to operate and to be so located to enable continuous, responsible observation of the overhead environment by the operator when elevating the antenna. This is necessary to prevent inadvertent contact of the mast with overhead power lines due to unsupervised operation.

Subsection (b) Level indication devices:

This subsection requires means to indicate whether the vehicle is on level or sloping ground. This is necessary as microwave masts often are 55 feet high, with some up to 70 feet high, and the offset of the mast of a vehicle parked on a slight slope can be greatly magnified. Level indication devices will assist the crew in assessing the risk of elevating the vehicle mast into nearby overhead power lines although they may not be parked directly under the lines.

Subsection (c) Illumination:

This subsection requires illumination adequate to assist operating personnel in locating overhead hazards such as power lines within the proximity of the elevating device during periods of darkness or reduced available light. This subsection is necessary because ENG vehicles are called upon to set-up in all kinds of locations, at all times of day and night, and locating overhead power lines during periods of darkness or reduced illumination can be difficult without adequate lighting. This subsection will require ENG vehicles to be equipped with spotlights or similar devices that can be aimed upward to illuminate obstructions in the path of the antenna and/or mast.

Subsection (d) Audible and visual warnings:

This subsection requires visual and audible warning alarms to alert the driver that the mast is elevated. This is necessary since movement of an ENG vehicle when the mast and/or antenna is extended can be hazardous because such movement may put the mast or antenna into contact with overhead power lines. The required warnings will alert the driver that the mast is elevated; however, the arrangement will not prevent movement of the vehicle if, in the driver’s opinion, emergency movement is necessary.

Subsection (e) Warning signs:

This subsection requires warning signs to be placed in locations where they are readily observable by the mast operator and the vehicle driver.

Subsection (e)(1) will require a sign at the mast operator's position that will inform of the minimum clearances required from overhead power lines.

Subsection (e)(2) will require signs at the mast operator's and driver's positions to inform them of the vehicle height when the mast or antenna is raised and when it is stowed. These warning signs are necessary to assist the crew in avoiding contact with overhead power lines and also in preventing collision of the vehicle with fixed overhead obstructions.

Subsection (f) Vehicle safety manual:

This subsection requires each ENG vehicle to be furnished with a single safety manual containing all the essential vehicle and equipment operating information specific for the vehicle in which it is placed. The safety manual is necessary to provide the crew with a ready reference of specific vehicle information.

Subsection (g) Requirement for work to be performed in accordance with Article 37 of the High-Voltage Electrical Safety Orders (HVESO):

This subsection requires that all ENG work shall be performed in accordance with Article 37 of the HVESO, Provisions for Preventing Accidents Due to Proximity of Overhead Lines. This is necessary to clarify that other provisions of the HVESO are applicable to ENG.

Subsection (h) Effective dates:

This subsection establishes compliance dates for newly manufactured ENG vehicles and for those vehicles already in service. This is necessary to provide time for manufacturers of new vehicles to adjust their manufacturing procedures once the requirements are codified. Furthermore, additional time is necessary for existing vehicles so that vehicle owners can manage cash flow and retrofit their fleet in an orderly manner without having to take a substantial portion of their fleet "off the street" at one time.

Section 2982. Employee Training:

Subsection (a) Scope and application:

Subsection (a)(1) specifies that ENG training requirements are in addition to those of the Injury and Illness Prevention Program (GISO 3203(a)(7)). This is necessary to address hazards that are unique to ENG and to clarify that specific ENG training is an "add-on module" to Section 3203.

Subsection (a)(2) specifies that safety training shall be conducted not less than annually for all personnel employed in ENG. This is necessary to maintain a high employee awareness of the hazards of electrical energy and to keep employees current on new hazards presented by rapidly changing technology. This regulation will impose annual training requirements on employers in addition to the initial training currently required by GISO Section 3203.

Subsection (a)(3) defines the personnel to be included within the scope of the training

requirements. In addition to “field personnel” (employees actually working the ENG vehicles), supervisory personnel who assign or have immediate and direct control over field personnel are also required to receive the training. Since ENG is unique from other industries in that the supervisor normally cannot “walk by” and observe the work conditions of his/her subordinates, it is necessary for persons having immediate and direct control over field personnel to receive the same training as those they supervise so they will be aware of the hazards associated with ENG so that they do not order field crews into unnecessarily hazardous assignments.

Subsection (a)(4) requires the employer to implement measures to ensure that personnel are trained as required by Section 2982(b) prior to their operating or working in proximity of ENG vehicles under field conditions. This is necessary to ensure that personnel are properly trained before operating ENG vehicles in the field.

Subsection (a)(5) requires personnel who assign or supervise field personnel, to have successfully completed training required by Section 2982(b) prior to assigning or supervising field personnel. This is necessary to prevent those who have immediate and direct control over the assignment of field crews from assigning or directing ENG crews in the field until they (the supervisory personnel) have received the requisite training. An exception suspends this requirement during major natural disasters or civil emergencies so as not to interfere with the special access privileges afforded news gathering organizations by Penal Code Section 409.

Subsection (b) Training:

Subsection (b)(1) contains a general statement of the goal of ENG training; to instill an understanding of the specific hazards associated with electrical energy and to teach safety-related work practices and procedural requirements as necessary to provide protection from electrical hazards. This is necessary so that ENG personnel will understand the personal importance of electrical safety training.

Subsection (b)(2) requires the employer to establish, implement, and maintain a written Code of Safe Practices (Code) for ENG that includes, but is not limited to the following elements: hazards common to ENG vehicles, safe vehicle operation, vehicle operating limitations, setting-up for the shoot, preparation for departure, and emergency protocol. This Code is necessary to provide a minimum training standard for organizations utilizing ENG vehicles. The required Code elements were developed, in large part, based on training criteria contained in the AFLAC Training Manual developed by the American Family Life Assurance Corporation, which is considered by many to be a model for the industry.

Subsection (b)(3) requires training and evaluation to be conducted by qualified individuals. This is necessary to insure that adequate standards are maintained.

Subsection (c) Documentation:

This subsection requires documentation of employee training as prescribed in Section 3203. This is necessary to clarify that the reporting requirements of the GISO Injury & Illness Prevention Program apply to ENG.

Section 2983. Safety Inspections:

This section requires safety inspections required by GISO Section 3203(a)(4) to be conducted not less than quarterly and to include in-the-field safety inspections. Quarterly safety inspections were determined to be necessary due to the normal lack of direct supervisory oversight of field crews, rapidly changing technology, intense time pressures upon the field crew to get the news story, and continuously changing work conditions. Quarterly in-the-field safety inspections will also facilitate the maintenance of safe work practices between annual training, which is required by Section 2982(a)(2).

DOCUMENTS RELIED UPON

1. *AFLAC Manual and Electronic News Gathering Certification Program*, American Family Life Assurance Corp., Broadcast Division, 1994. (Out of print)
2. *ENG Truck Operation Manual, 3rd Edition, March 2000*, CKCO Television, 864 King Street, West, Kitchener, Ontario, N2G 4E9, Canada.
3. *Electronic News Gathering, Safe Work Practices, Effective June 20, 2000*, KABC-TV Channel 7, 500 Circle Seven Drive, Los Angeles, CA 91201.
4. *OSHSB Petition Decision, File No. 422, January 18, 2001*.

These documents are available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE ECONOMIC
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 businesses.

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

Costs or savings to state agencies may result as a consequence of the proposed action. The proposed regulations do not impose unique requirements on State agencies. Only agencies with vehicles within the scope of this regulation will be affected, and their costs and/or savings will be the same as for businesses having the same kind of vehicles. Only two State Agencies (the Office of Emergency Services and the Department of Forestry) are known to have vehicles that will be affected by these proposed regulations.

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.

Added costs associated with equipping new ENG vehicles to comply with the proposed requirements were estimated by the Advisory Committee to be \$1500 on average. The cost of retrofitting existing vehicles will depend on the age and manufacture of the vehicles, but has been estimated not to exceed \$3000 per vehicle. Additionally, costs may be more than offset by increased employee safety, and reduced likelihood of mast and vehicle damage due to the required safety provisions, including a warning system to alert the driver and crew if movement of the vehicle is attempted without the mast being fully retracted and stowed.

Due to economics of size (large vs. small stations), and the wide range in labor and talent costs throughout the State, it is impossible to arrive at meaningful training costs that can be applied statewide. Furthermore, the proposed regulations are performance oriented and do not mandate a specific amount of training time; however, the training subcommittee estimated that initial coverage of the required subjects would take approximately eight hours. Annual refresher courses may require less than eight hours. It should be kept in mind that initial training is already required by General Industry Safety Orders, Section 3203(a)(7) and therefore should not be considered an added cost of this proposed regulation; however, some stations may need to adjust their initial training based on the proposed training regulations.

Cost Impact on Private Persons or Businesses

The Board is not aware of any cost impacts that a representative private person may incur; however, the cost impact that businesses would necessarily incur in reasonable compliance with the proposed action is described in the section above.

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 imposes nondiscretionary costs on local agencies; however, only agencies with vehicles within the scope of the proposed regulations will be affected. Costs and/or savings to agencies affected will be the same as for businesses discussed previously. Due to the specialized nature and high cost of the regulated vehicles, most local agencies will not have such vehicles and will therefore not be affected. Those agencies having vehicles subject to the proposed regulations are likely to have no more than a few.

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 beyond those applicable to any other entity that operates ENG vehicles. 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.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendments will not affect small businesses as defined in Government Code Section 11342.610.

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.