

# ADOSH ADVOCATE

Improving Workplace Safety and Health



<http://www.ica.state.az.us>

Darin Perkins, Director

Summer 2005

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## ADOSH ADVOCATE

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Comments and suggestions are welcome

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## PROTECTING WORKERS FROM ELECTRICAL HAZARDS

There is a growing awareness in the industry of NFPA 70E, *Standard for Electrical Safety in the Workplace*. NFPA 70E - 2004, published in April 2004 is the new "how you work on it" standard in the electrical industry coupled with the "how you build it" approach of the NFPA 70, the National Electric Code (NEC). Industry now has a complete picture of how to protect employees who are exposed to shock and arc flash hazards.

Virtually every industrial workplace houses electrical equipment in some way, shape or form. It is essential to know how NFPA 70E applies to your workplace and what personal protective equipment (PPE) is required to protect your workers. The standard applies to more than just electricians; it covers any person working on or near energized parts. It affects a wide range of employees, right down to maintenance workers. It provides some very good information that employers can use when determining what procedures they should follow and what protective equipment they should provide.

NFPA 70E -2004 is divided into four chapters:

- Chapter 1: Safety Related Work Practices
- Chapter 2: Safety Related Maintenance Requirements
- Chapter 3: Safety Requirements for Special Equipment
- Chapter 4: NEC - Related Installation Material

The OSHA general industry electrical standard (1910 Subpart S) has not been updated since 1981. OSHA is proposing a revised

standard to update Subpart S which will reflect current practice and technology in the field. Proposed changes will focus on safety in the design and installation of electric equipment in the workplace.

OSHA's proposed changes will draw heavily from NFPA 70E and the 2002 edition of the NEC.

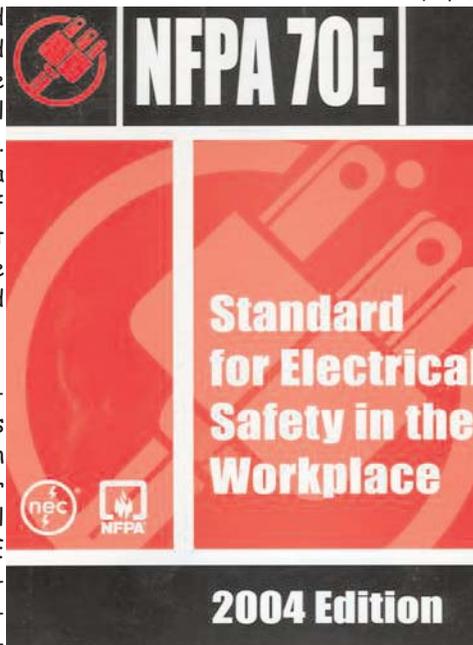
Does ADOSH enforce the requirements of NFPA 70E?

ADOSH cannot cite an employer for not following NFPA 70E per se, but we can cite an employer for two things. First, we can cite for violating our existing standards. 29 CFR 1910.132 requires an employer to provide

PPE where it is necessary for protecting employees. The second area is 1910.335, which is a general requirement for the employer to provide protection from electrical arc and shock hazards. In citing 1910.132 and 1910.335, we can look to NFPA 70E to show that it is a recognized industry practice to provide certain types of protection or to the extent to which protection should be provided. ADOSH has done this in the past.

How does ADOSH view NFPA 70E?

From a standards perspective, ADOSH views NFPA 70E as the main consensus standard addressing electrical hazards associated with electrical utilization systems. The electrical installation and safety related work practices in the current general industry standard in Subpart S are based on previous editions of NFPA 70E. OSHA's proposed revisions of the installation require-



ments will be based on Chapter 1. Later stages of the rulemaking process will be based on other parts of NFPA 70E.

**Are companies doing enough for electrical safety by following the OSHA standards?** OSHA standards are minimum standards. ADOSH encourages employers to go further in protecting employees. OSHA's current electrical safety-related work practices standards are 14 years old. Although the standards address protecting employees from electrical arc, they do so in a general way. The current OSHA standards also do not include such consideration as arc hazard analysis or selecting PPE to match that analysis, as are addressed in the current version of NFPA 70E.

Take a look at the elements contained in NFPA 70E -2004, "*Standard for Electrical Safety in the Workplace*". As employers take steps to implement NFPA 70E to protect their employees, there will continue to be a downward trend in fatalities and serious injuries from electrical arc incidents. NFPA 70E is available for purchase at [www.nfpa.org](http://www.nfpa.org).

*Katherine Gosiger  
Safety Compliance Officer*

## **Forklift Training and Certification**

We have recently received many telephone calls from employers and employees on the requirement to be certified to operate industrial trucks (forklifts). OSHA's General Industry and Construction standards are clear on this requirement. The certification of an employee to operate an industrial truck must be made by the employer on the type of forklift that the employee is to operate.

Prior to allowing an employee to operate an industrial truck they must be trained and evaluated on the requirements outlined in 29 CFR 1910.178(l). The employer may avoid duplicative training of employees who are found competent to operate the truck safely due to experience and/or knowledge. When this option is taken the employer still has a duty to train the individual in the areas where the employee is not found competent.

Certification of the operator is the employer's responsibility. 29 CFR 1910.178(l)(6) states, "The employer shall certify that each operator has been trained and evaluated. The certification shall include the name of the operator, the date of the training, the date of the evaluation, and the identity of the person(s) performing the training or evaluation."

Industrial trucks are manufactured by numerous companies and the controls and capacities of each type of truck are different. Thus, the operator certification should be specific to the truck that the employee operates. An evaluation of each powered industrial truck operator's performance must be conducted at least once every three years or when the operator is assigned to drive a different type of truck. Allowing an employee to use a truck that he is unfamiliar with and not certified to operate is a violation of OSHA standards.

The ADOSH training sections periodically provide a forklift "Train-the-Trainer" class. This class was developed in order to give employers the information necessary to help them conduct their own training and certification program. Class schedules are published quarterly in this newsletter. Additional information can be obtained through the ADOSH consultation sections.

*Carlos Rodriguez  
Safety Consultant*

## **Poly Print, Inc. : Committed to Employee Safety**

I recently had the pleasure of meeting the owners of Poly Print, Inc., a small, family owned and operated printing company that had heard of the ADOSH consultation services and requested that consultants from the Tucson office come in and aid them in reviewing their strengths and weaknesses with regards to their safety and health program.

Prior to my meeting the owners, the ADOSH consultants informed me of the commitment this particular employer

had towards their employees when it came to safety and health. Right from the start the consultants felt that this employer would be a good candidate for



ADOSH'S Safety and Health Achievement Recognition Program (SHARP). After working with the employer over the course of several weeks to improve existing safety and health programs and practices, the employer was finally awarded the SHARP certificate in a small ceremony on March 17, 2005.

It was during that ceremony that I first met the owners, Ron and Elsie Genova. Their business was incorporated in Arizona, in 1992 and now employs 37 people. The Genova's say that their company has grown to be a family and in the short time I was in the facility that was obvious. The company prides itself on the quality of the work they do and the value they place on their employees. Even though they are a small company, the equipment they work with poses some very real safety and health threats such as amputations. The owners are fully aware of the potential risks.

I must say that the owners and the company were exactly as described by the consultants who had been working with them. I found myself listening intently as this small business owner explained how he got his start, how he landed some of his clients and how important his employees are to him. He related a story to me about one employee who had violated a safety policy and was immediately given a week off to reflect on his error. I watched as employees worked, and listened as they spoke to the company owners about how proud they were of the fact that they had received this award from ADOSH. I was touched as Mrs. Genova gave a heartfelt, and tearful thank-you to the employees of the

# ADOSH ADVOCATE

company for working towards this recognition. It was obvious there was a mutual respect between employer and employee.

As we completed the ceremony I was reminded of why it is that we are out there every day doing the work that we do. Part of our goal is to identify those employers who do an effective job with

regards to safety and health. But more importantly, it is to help those struggling to get to that point and possibly affect some positive and permanent changes within a company's culture as it relates to employee safety and health. Employees are an organization's most valuable resource. Equipment can be replaced, employees cannot.

To the Genova's and the employees of Poly Print, Inc., I say congratulations and keep up the good work. To others wondering if you can achieve the same thing, I suggest that you call ADOSH's consultation section and let us show you how easy it can be.

*Mark Norton,  
Assistant Director*

## SHARP and VPP Recognition

The ADOSH Safety and Health Achievement Recognition Program (SHARP), started in 2004, recognizes smaller employers that have demonstrated exemplary achievements in workplace safety and health. Employers that develop, implement, and work to continuously improve the effectiveness of their workplace safety and health management program may be eligible for this recognition. Incentives for participating employers include: assistance from the ADOSH consultation section, public recognition for employers and employees, exemption from general scheduled ADOSH compliance inspections for one year, and receipt of a certificate of recognition.

We are happy to announce that 18 more employers have recently received SHARP certification.

*Granite Construction Company, Tucson  
Tucson Electric Power, Tucson  
Waste Management of Arizona, Inc., Phoenix North, Phoenix  
Honeywell-Circuit Card Assembly Products Group, Tucson  
West Valley Fertility Center, Glendale  
Sandvick Equipment & Supply Company, Phoenix  
Southwest Eye Surgeons, Sun City  
Sun Valley Hand Surgery, Phoenix  
Sara Lee Bakery, Phoenix*

*Weyerhaeuser Building Materials, Phoenix  
Maxwell Medical Group, Phoenix  
Waste Management of Arizona, Inc., Phoenix South, Phoenix  
City of Goodyear (seven locations), Goodyear  
Dietrich Metal Framing, Goodyear  
Little America Hotel, Flagstaff  
Poly Print, Inc., Tucson  
Waste Management Northwest Regional Landfill, Surprise  
Arizona Endoscopy Center, LLC, Phoenix*



In addition, ADOSH would like to welcome one more Arizona employer into the Voluntary Protection Program (VPP). Special Devices, Inc. in Mesa became the 15<sup>th</sup> VPP STAR site earlier this year.

We'd also like to congratulate three other employers, Honeywell International - Honeywell Aerospace Service in Phoenix, Friday-Arizona Service Center in Phoenix and Honeywell International-Honeywell Aircraft Landing Systems in Kingman for successfully completing their VPP re-certification.

The Voluntary Protection Programs (VPP) is designed to recognize and promote effective safety and health program management. In the VPP, management, labor and ADOSH establish cooperative relationships at workplaces that have implemented strong safety and health programs.

*Babak Emami  
Consultation Supervisor, Phoenix*

## *Fatal Mistakes*

On a clear and pleasant winter morning, two carpenters were working on a strip mall building in Apache Junction setting roofing panels in place on a glue-lam beam structure at a height of over 16' from the floor. 60' from where these carpenters were setting roofing panels, another carpenter was having difficulty setting the final truss for the roof and called for the two carpenters to come and help him. With the assistance of the other two carpenters, the last truss was set.

The two carpenters who had been setting roof panels went back to their work. Instead of using a ladder to return to floor level, each walked along the glue-lam beam nearest to him over 60' to the place they had been working. One made it, one fell. The carpenter who fell, went down 16'8" to the concrete floor, landing on his head, causing fatal injuries. The carpenter who made it back did not hear or see his partner fall from the glue-lam beam he was walking.

The glue-lam beam was 5 1/8" wide and over 80' long. Ladders, or a scissor lift, were present at both ends of the beams.

The employees of the company had not been trained in fall protection methods during their employment with this company. The company did not have a fall protection plan or program. The employees did have fall protection equipment in their truck. However, the company did not enforce their own general safety policy that stated that any worker working at a height over 6' from the next lower level was to be protected from falls by guard rails, safety nets or personal fall arrest equipment.

These lax policies and poorly enforced rules spelled out a recipe for death on this job site. The company was cited for these failures.

That this company was aware of these requirements was made obvious by the history of the company relative to fall protection requirements. They had been cited five times over the life of the company for failure to provide fall protection. Given that this history existed and that the entire crew was not using any form of fall protection, and that fall protection equipment was present on the job site, this incident was seen as a willful violation of the standards and citations were written accordingly.

This type of flagrant disregard for minimal safety requirements on a job site is certainly not acceptable to ADOSH, nor to you as employers and employees in the working world. Unfortunately, this disregard continues to exist. When found, citations and penalties are often issued, but that is sometimes not enough to stop willful disregard of the law.

Please call us at 602-542-5795 if you see a situation like the one described above. The compliance section will make every effort to see that it is corrected before someone else is injured or killed.

Ernie Miller  
Safety Consultant

### ***Protect Yourself!***

Summer time means mosquito time, and with reports of West Nile Virus (WNV) having been identified, it is important for employees to protect themselves while working outdoors.

The Centers for Disease Control (CDC) recommend the following preventative measures:

**Avoid mosquito bites by applying insect repellent.** In addition to repellants containing DEET, the CDC also recommends repellants containing either picaridin (also known as KBR 3023) or oil of lemon eucalyptus (also known as p-methane 3,8-diol or PMD). Recent studies have shown these two ingredients to be just as effective as DEET.

**Wear proper clothing.** Long-sleeved shirts, long pants and socks should be worn outdoors, if possible. Be particularly careful during the hours from dusk to dawn, when mosquitoes are more prone to bite.

**Drain standing water.** Mosquitoes lay their eggs in standing water. Empty or get rid of items that hold water. Keep swimming pools maintained and properly treated.

For more information, visit the CDC web site at [www.cdc.gov/westnile](http://www.cdc.gov/westnile).

## ADOSH Education and Training Calendar

<b>Date</b>	<b>Class</b>	<b>Location</b>	<b>Trainer</b>	<b>Phone number</b>
July 6	Heat Stress Prevention	Buckeye	Fernando Mendieta	602-542-1640
July 7	Excavation Safety	Avondale	Joe Gates	602-542-1641
July 7	Hand & Power Tool Safety	Tucson	Mark Norton	520-628-5478
July 12	Hazard Communication	Phoenix	Fernando Mendieta	602-542-1640
July 13	Fall Protection	Tucson	Carlos Rodriguez	520-628-5478
July 14	Back Injury Prevention	Flagstaff	Fernando Mendieta	602-542-1640
July 19	Hand & Power Tool Safety	Peoria	Joe Gates	602-542-1641
July 20	Ergonomics	Yuma	Fernando Mendieta	602-542-1640
July 20	Electrical Safety	Tucson	Carlos Rodriguez	520-628-5478
July 21	Excavation Safety	Tucson	Mark Norton	520-628-5478
July 21	OSHA in the Medical Office	Yuma	Fernando Mendieta	602-542-1640
July 21	Excavation Safety	Mesa	Joe Gates	602-542-1641
July 26	Lockout/Tagout	Phoenix	Joe Gates	602-542-1641
July 26	Confined Space Entry	Prescott	Fernando Mendieta	602-542-1640
July 27	Forklift Train-the-Trainer	Tucson	Bill Garton	520-628-5478
July 28	Scaffold / Ladder Safety	Tucson	Tom Webb	520-628-5478
July 28	OSHA in the Medical Office	Phoenix	Fernando Mendieta	602-542-1640
August 3	Concrete & Masonry Safety	Tucson	Mark Norton	520-628-5478
August 3	Respiratory Protection	Buckeye	Fernando Mendieta	602-542-1640
August 4	Safety Management	Prescott	Joe Gates	602-542-1641
August 10	Safety Management	Phoenix	Joe Gates	602-542-1641
August 10	Back Injury Prevention	Show Low	Fernando Mendieta	602-542-1640
August 10	Noise and Hearing Conservation	Show Low	Fernando Mendieta	602-542-1640
August 10	Hazard Communication	Tucson	Bill Garton	520-628-5478
August 15	Machine Guarding	Tucson	Mark Norton	520-628-5478
August 17	Safety Management	Tucson	Mark Norton	520-628-5478
August 17	Confined Space Entry	Phoenix	Fernando Mendieta	602-542-1640
August 17	Excavation Safety	Yuma	Joe Gates	602-542-1641
August 18	Back Injury Prevention	Mesa	Fernando Mendieta	602-542-1640
August 18	Lockout Tagout	Tucson	Carlos Rodriguez	520-628-5478
August 18	Personal Protective Equipment	Yuma	Joe Gates	602-542-1641
August 23	Excavation Safety	Phoenix	Joe Gates	602-542-1641
August 23	Personal Protective Equipment	Peoria	Fernando Mendieta	602-542-1640
August 24	Welding Safety	Tucson	Tom Webb	520-628-5478
August 25	Hazard Communication	Avondale	Fernando Mendieta	602-542-1640
August 31	PPE	Tucson	Carlos Rodríguez	520-628-5478
September 6	Back Safety	Tucson	Tom Webb	520-628-5478
September 7	Confined Space Entry	Tucson	Fernando Mendieta	602-542-1640
September 7	Respiratory Protection	Tucson	Fernando Mendieta	602-542-1640
September 8	Hazard Communication	Tucson	Bill Garton	520-628-5478
September 13	OSHA Inspection Process	Tucson	Mark Norton	520-628-5478
September 14	Noise and Hearing Conservation	Buckeye	Fernando Mendieta	602-542-1640
September 14	Forklift Train-the-Trainer	Phoenix	Joe Gates	602-542-1641
September 15	Fall Protection	Tucson	Carlos Rodriguez	520-628-5478
September 20	Hand & Power Tool Safety	Tucson	Tom Webb	520-628-5478
September 20	Lockout/Tagout	Peoria	Joe Gates	602-542-1641
September 21	Respiratory Protection	Yuma	Fernando Mendieta	602-542-1640
September 22	Confined Space Entry	Yuma	Fernando Mendieta	602-542-1640
September 22	Bloodorne Pathogens	Tucson	Mark Norton	520-628-5478
September 27	Excavation Safety	Tucson	Mark Norton	520-628-5478
September 27	Hazard Communication	Prescott	Fernando Mendieta	602-542-1640
September 27	Personal Protective Equipment	Phoenix	Joe Gates	602-542-1641
September 29	Fall Protection	Flagstaff	Joe Gates	602-542-1641
September 29	Forklift Train-the-Trainer	Tucson	Bill Garton	520-628-5478

All Tucson classes will be held at 2675 East Broadway Tucson Az. Please call if you have any questions.

Trainers may also be contacted by e-mail at [gates.joe@dol.gov](mailto:gates.joe@dol.gov), [mendieta.fernando@dol.gov](mailto:mendieta.fernando@dol.gov)

*Occupational Fatalities Investigated by ADOSH  
January 1, 2005 through March 31, 2005*

- An employee was performing maintenance underneath a cold planer (milling attachment) when it detached from the skid steer and fell on him.
- An employee was crushed between a scissor lift and a block wall.
- An employee was killed when he was struck by a 20' length of drilling pipe.
- The owner of a company was working under a car suspended by a forklift when the car fell, crushing the owner.
- An employee was killed when the dump truck he was driving lost the brakes and veered off of the roadway.

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