



Under Construction

your safety & health awareness monthly news

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NAWIC—The National Association of Women in Construction

Special points of interest:

- Focus on Residential Updates
- Focus on NFPA 70E Updates
- Best Practices—Handling Material using Non-traditional Methods
- Safety Education—The purpose behind “Lessons Learned”

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“Make Your Next Decision a Safe Decision”

How often do we think or do...“just this once”...Even as much a safety zealot as I think I am, I find myself taking unnecessary risks when I am not at work. It might be traveling a little faster than the posted speed limit, using a chair to stand on to hang something up instead of finding a step ladder, or even using the wrong tool for the task.

I’m not sure why my disconnect happens, and when it does, I always think afterwards that I should have done it differently....after all, in my role, I should never be the one who only “talks the talk” and doesn’t “walk the walk”.

My decision-making is obviously flawed at times, and at best hypocritical in retrospect. and when I saw

this safety slogan recently when I was on a mini-vacation, I thought it was worth sharing with everyone.

“Make your next decision a



safe decision” can be a goal for you on every project. If we give our workers the opportunity to take just a few additional seconds to complete a task, chances are greater that they will complete the activity safely. Communicate to them that it is appropriate to make safe decisions,

not just work on the fly.

It’s also appropriate to communicate to the workforce to challenge something that they feel is not safe. By doing so, they may not only be protecting themselves and their co-workers, but also might bring to light something inadvertently omitted from a site-specific safety program.

So my message to all is to think before you act, and always act safely.

I’m going to stand behind my words—any future decisions I make WILL be safe decisions. NEF will be the recipient of my missed opportunities for safety—hopefully not too costly a promise!

Thanks and Be Safe—Kat

Kathi Dobson—Detroit, Region 4

Ask the Expert...thanks to Rick Kaletsky, former OSHA Inspector

Okay—I know that I sometimes use words that I think I know the meaning to, but don’t really mean what I think, and sometimes I use words for describing things that I know are not in the English dictionary, but this is important...

I thought “INFLAMMABLE” equals NONFLAMMABLE,

but it really means the SAME AS FLAMMABLE! The English language has loads of quirks and this is one of them. It could have deadly results as a matter of miscommunication.

Try and always use “NONFLAMMABLE” when you want to say that a substance is NOT FLAMMABLE, whether it is on a sign or in

spoken language.

To add to the confusion, consider the Spanish word for “Flammable”. That word, which often appears on labels is inflamable.

Now don’t get me started on the difference between “orient” and “orientate”!



NFPA 70E is a standard of the National Fire Protection Association, a sponsor of the National Electric Code (NFPA 70) and addresses employee electrical safety in the workplace. The codes focus on practical safeguards that allow workers to be safe and productive within their job functions.

NFPA 70E Updates

NFPA 70E Updates come around every couple years or so—here's the latest.

Addition of the word "inspection" to 90.2(A) expands the scope of the standard, and clarifies that those persons performing inspection duties must also be safeguarded like those performing installation, operation, maintenance, and demolition duties.

The term "flame resistant (FR)" will be replaced by the term "arc rated

(AR)". This proposed change is meant to clarify that arc-rated clothing has been tested for exposure to electrical arcs, whereas not all FR materials have been.

Adding a new section [110.6(D)(3)(d)] that states, "retraining shall be performed at intervals not to exceed three years."

Adding a new section [110.10] that focuses on the hazards associated with excavation work. This will require

that a hazard analysis be performed prior to any excavation work near electrical or utility lines and equipment.

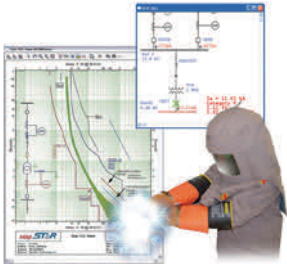
Specific references and tables will be added to clarify this standard covers both AC and DC systems.

...Continued on page 4

Questions and Answers about NFPA 70E Compliance

- | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Q. How do we reduce risk and exposure to arc flash hazards?</p> <p>A. Through an electrical safety program which includes:</p> <ul style="list-style-type: none"> Acknowledging that there is a hazard Train management and workers Risk evaluation Identification of resources Define goals and develop an | <ul style="list-style-type: none"> action plan Evaluate exposure to arc flash/blast hazards Provide appropriate PPE Label for worst case conditions Utilize Energized Work Permits Identify qualified persons (one who has skills and knowledge related to the construction and operation of the electrical equipment and installations and has re- | <ul style="list-style-type: none"> ceived training Maintain systems as needed Integrate an arc flash and electrical safety program into the overall safety program Provide appropriate PPE based on the hazards and train workers in correct use Know that OSHA considers NFPA 70E a consensus standard for arc flash—you must follow it to be safely in compliance with applicable OSHA standards. |
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Learn the Facts—Arc Flash



- Arcs can produce radiant energy 4 times hotter than the temperature on the surface of the sun, reaching or exceeding 35,000 degrees Fahrenheit.
- Arc flash incidents kill and maim workers and destroy property.
- The flash protection boundary must be adhered to—this is the distance from an arc flash source within which an unprotected person has the chance of receiving a 2nd degree burn.
- An arc flash is an electrical breakdown of the resistance of air resulting in an electric arc which occurs when there is sufficient voltage in an electrical system and a path to ground or lower voltage..
- PPE is the LAST resort in protecting your workers—a hazard category classification table can be used to determine appropriate PPE. You can find the table in NFPA 70E.
- Design, time and distance are better options for employee safety.
- For a good video explanation - copy the following http://www.youtube.com/watch?v=-Qq7U7tFsvQ&feature=player_embedded

A Best Practice: Handling Materials Using Non-Traditional Methods

The future of safe lifting means getting away from manually handling (and double handling) materials.

There are now better ways to lift and move things than with our legs and backs.

Vacuum lifting systems have been in place for many years, primarily for lifting steel pipe in the oil and gas industry. We know now that the same techniques can be used with most common pipe material, as well as concrete, PVC and bags of materials.

This eliminates the need to strap or chain material to a

lifting device, and reduces the number of personnel needed to handle each load. This also reduces the potential for damage which can be caused by straps and rigging material.

These units are designed with stored vacuum supplies which, under current standards will hold material securely under no power for 10 minutes. Some systems have a greater safety ratio and can hold for up to 30 minutes.

Another new technique is to use magnets to move material. This application has recently been used to help

move and set base plates in an automotive plant. Using the magnet does the same thing as the vacuum—it reduces manual handling of the material, reduces the number of personnel needed to move the load and helps to protect the material being lifted.

Of course, personnel working with any of these devices have to be trained and must demonstrate that they are capable of using the tool in a proper method.

For information on the vacuum system, one resource is www.vacuworx.com, based in Tulsa, OK.



OSHA's Residential Updates in Construction

By now, most everyone knows that OSHA rescinded a letter of interpretation last fall which allowed residential contractors to NOT use fall protection when performing work at heights. The thought process at the time was that it was too difficult and essentially infeasible for residential contractors to comply with Subpart M of 1996, which established (for most contractors) a six (6) foot fall protection rule when performing construction activi-

ties.

There remain a few construction activities with more lenient rules for fall protection, but for the most part, except for residential contractors, the rule was 6 feet and tie off or fall protection.

Effective September 2011, residential contractors must also follow the "six foot rule", and provide for fall protection in the same manner that all other contractors have been required to follow

since the standard was enacted.

OSHA is aware that there is a great deal of confusion as well as questions regarding this, and they have come up with a power point presentation which will help explain this confusing issue.

Go to www.osha.gov/doc/residential_fall_protection.html to access the presentation and/or download it.

Residential Contractors must follow OSHA's "6 Foot Rule"

Lessons Learned—What's the Point?

When we complete an accident investigation, using root cause methodology, 5 why's or whatever process you use, we should close the loop on the accident, incident or near miss (near hit for some) by communicating the "Lessons Learned" from the investigation.

Sometimes this is a pretty painful process, especially when it becomes clear, during the course of the investigation, that there are gaps in

your safety program. Policies and procedures may need to be reassessed and revised, but more importantly, by communicating the lessons you learned in conducting a thorough accident investigation may prevent another project or division from the same type of incident.

On large scale projects, it's important to do a "lessons learned" with any crew that could be affected by the same type of incident. Hold

a safety stand down or a site-wide meeting to talk about the incident and to discuss what happened and what the investigation team has come up with as a way to prevent the incident from happening again. Eliciting comments from the group may bring forth even more corrective measures which can be put in place.

Think of the lessons learned as an opportunity to prevent future accidents.



NFPA 70E Updates—continued from page 2

Revising the current equipment labeling requirement [130.3(C)] to clearly identify the types of equipment that need to be labeled (i.e., “switchboards, panel boards, industrial control panels, meter socket enclosures, and motor control centers that are likely to require examination, adjustment, servicing, or maintenance while energized”). The following information shall be included on the label: 1) available incident energy or minimum arc rating of clothing; 2) date of arc flash hazard analysis; 3) nominal system voltage; and 4) arc flash boundary.

Adding a new section that requires employees to wear hearing protection when working in the arc flash

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Adding an “arc flash boundary” column to existing Table 130.7(C)(9)

Including a requirement for wearing a balaclava (e.g., sock hood) when working in a Hazard/Risk Category 2 area. Revising the current equipment labeling requirement [130.3(C)] to clearly identify the types of equipment that need to be labeled (i.e., “switchboards, panel boards, industrial control panels, meter socket enclosures, and motor control centers that are likely to require examination, adjustment, servicing, or maintenance while energized”). The following information shall be

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Check this out!

3M has come up with the “Wild-N-Pink”, a welding helmet designed specifically for women welders to express themselves without sacrificing quality or safety. It features an ergonomic headband to accommodate smaller head sizes, and is available with an auto-darkening filter. For those of you who can’t get enough pink construction equipment, or who just want a properly fitting welding helmet, this might be your opportunity!



The ASSE’s (American Society of Safety Engineers) common interest group, WISE, (Women In Safety Engineering) has recently begun developing a resource book, for all wom-

en, regardless of their membership in the association. The group hopes that the book will help consolidate a number of resources for women in the construction industry and safety professions, especially related to personal protective equipment. The on-line spreadsheet also features women-owned firms. (Go to www.asse.org, then practice specialties, common interest groups, WISE, then resource book to check it out.)

Let us know if you are a supplier or vendor for women’s construction PPE (www.nawic.org), then find bulletin board–forum and give us a head’s up!

Safety Congratulations! Medco Construction, LLC Achieves One Million Labor Hours—Zero Lost Time Accidents!

What does one million man hours relate to in everyday life? If 100 employees worked 12 hours a day times 7 days a week it would calculate to 8400 man hours a week. Based on this example, it takes 100 employees more than 119 weeks (over 2 years) to achieve the one million man hour mark.

Safety is MEDCO’s first Core Value. Specifically, they commit to the safest work site possible for the protection of employees, project team members and customers. All employees, whether located in the corpo-

rate office or in the field, attend Safety Training.

Before the start of a project a Safety Supervisor meets with the Project Manager of the job. A Project Specific Safety Plan is developed to incorporate standard safety regulations, but also to address the risks surrounding the project as well as any unique construction risks specific to that project. Once the project is underway daily and weekly inspections are required with the Safety Director periodically inspecting and making recom-

mendations. Project Superintendents are responsible for daily enforcement of safety regulations

All field employees including Project Managers and Project Administrators must attend OSHA 10 hour training and all superintendents attend OSHA 30 hour training.

Subcontractors are also required to hold weekly safety meetings on the jobsite. Documentation of these meetings is provided to the Project Manager.

To reach this type of goal, it requires teamwork, dedication and attention to the small details. GREAT JOB, MEDCO!

What makes an Instructor “qualified?”

Some OSHA standards call for “competent” persons, some call for “qualified” persons.

The definition OSHA gives for “qualified” means “one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project.”

The AWPT (Aerial Work Platform Trainer) group has a statement of Best Practices which defines their qualifications for an individual to successfully educate operators. They would be applica-

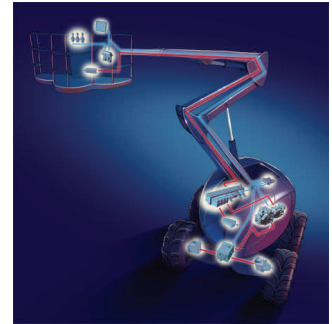
ble to most training qualifications.

1. Knowledge of the rules, regulations and standards
2. Knowledge of the equipment and information in the manufacturer’s operation safety manual
3. Awareness of potential hazards and means to protect against them
4. Ability and knowledge of proper application of the equipment
5. Awareness of the consequences of improper

use and application

6. A good safety record based on implementation of the rules
7. Good communication and presentation skills, as well as teaching methods for adult learners
8. Also, they must be able to demonstrate that they are able to operate the equipment they are training on
9. Finally, they must maintain continuing education in the field of their expertise.

Next time you wonder if someone is “qualified” to teach, consider reviewing these points.



“Qualified” means that an individual can solve or resolve problems related to the subject

What are OSHA Alliances?

OSHA has an alliance program in which they work with groups committed to worker safety & health to prevent workplace fatalities, injuries and illnesses. These groups include unions, consultates, trade or professional organizations, businesses, faith- and community-based organizations and educational institutions. OSHA and the groups work together to develop compliance assistance tools and resources, share information with workers and

employers and educate workers and employers about their rights and responsibilities.

Participants support OSHA’s strategic goals by developing Alliance agreements and implementing plans that emphasize:

- ◆ Raising awareness of OSHA’s rulemaking and enforcement initiatives
- ◆ Outreach and communication

◆ Training and education.

Believing that NAWIC and our members/member companies may benefit from such an alliance, Kathi Dobson, Dede Hughes and Judy DeWeese met with OSHA representatives in late September to discuss the possibility of forming an alliance based on OSHA’s special emphasis programs and outreach for women among others.



Alliance Program participants are committed to working closely with OSHA to develop and share information and to educate workers and employers about their rights and responsibilities under the OSH Act.

SUBJECT MATTER EXPERTS – Some basic questions and requests

IF NAWIC is to pursue an alliance with OSHA, we must be certain that we can meet our obligations under the alliance.

1. **Is there interest in this?**
Please let your Region Safety & Health Reps and Region Directors know that you think there would be benefit in pursuing this.
2. **Are there enough Sub-**

ject Matter Experts (SME) to support the alliance efforts?

We need to identify those among us who would be willing to provide their valued knowledge to any programs we may wish to develop (suggested so far—harassment in the workplace, PPE, sanitation issues, ergonomics, other issues affecting women in the industry,

including Hispanic women in the industry).

3. **Would you be willing to participate in OSHA Roundtables (at your/your company’s expense to support the alliance?)**

Please let Kathi Dobson, Terri Piasecki or your Region Safety & Health Representatives know that you are interested and what your area of expertise is.

Alliances develop programs that go beyond OSHA’s “normal” scope. (see www.osha.gov/dcsp/alliances/alliance_products.html) for some ideas



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in Construction**

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Work Safe - For Life



You can place a mailing label here

We're on the web! Go to www.nawic.org, sign in and in the members only section find our bulletin board in the member services section as well as our committee information under "committees".

NAWIC's Safety & Health Committee is here to help you resolve safety & health issues affecting your work within the construction industry.

We are also here to help with ANY safety or health issues affecting women.

NAWIC builds, and we believe this committee holds a major role in not only *building* a safe work environment, but we'll also help you go beyond compliance to help you *build* a culture of safety in your organizations where safe work is automatic and becomes a conscientious routine and expected of all, no matter where you work or what your company does.

Best Practices for your Accident Prevention Program



Over the past 10 years, most states have shown a remarkable improvement in their overall injury and illness rates for the construction industry. There are many factors that can be attributed to reducing those rates, e.g.; a better trained and educated workforce, improved awareness, more site inspections, employee involvement, better opportunities for training, but the biggest factor appears to be how employers are managing their accident prevention program (APP). OSHA states that employers

shall develop, maintain and coordinate with employees an accident prevention program, a copy of which shall be available at the worksite. (REMEMBER WHEN OSHA SAYS SHALL, THEY MEAN MUST)

Those companies who are struggling may not be maintaining their APP, or may not be adequately communicating to their employees.

Best practices as they relate to an APP include written procedures for each work operation, pre-task analysis of their work, employee in-

volvement in inspections and decision making and creating a culture which clearly defines expectations and responsibilities.

The companies who institute best practices are much more likely to have less injuries, reduced citations and a better ROI—return on their safety investment.

From Patty Meyer, Director, MIOSHA and the MIOSHA Consultation Education & Training Division of LARA—Licensing & Regulatory Affairs.