



# Safety News

Dedicated to ensuring the safest and healthiest working environment for our members

Summer 2018 | Issue 12

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## Our Vision

The United Association and its local unions will apply its best practices and resources to build the best educated and safest workforce in all sectors of the piping industry.

## Message from Cheryl Ambrose Health, Safety and Environmental Administrator



Safety culture...What is it really? Do an internet search and one can find countless articles, information, and definitions that may leave a person more confused than before they searched. It is definitely part of more and more conversations about safety. Yet when asked to define it, most people find it difficult to explain. The safety culture of an organization is really an extension of the overall culture of the whole organization. Organizations with strong, people-centered cultures will likely have strong safety cultures. They are clear on their core values, beliefs, and expectations, commonly shared by the people in the organization and reflected in how work is carried out. Within a strong safety culture, there must exist a safety conscious work environment (SCWE) in which employees feel free to raise safety concerns to management without fear of retaliation. It begins with trust and communication, critical elements if a real and positive safety culture is to be realized and sustained.

So, what does it look like and feel like to have a strong, positive safety culture?

To help answer this question and explain how it aligns with the



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UA Standard for Safety, the UA is excited to offer a new course at 2018 Instructor Training Program called *Safety Culture for Front-Line Leaders*. The course is offered through collaboration with the Department of Energy National Training Center (DOE NTC). Front line leaders are not just supervisors, but include all employees up and down an organization that can have a positive impact on safety. The course, through interactive exercises, explores the elements of culture and the three key focus areas of leadership, employee/worker engagement, and organizational learning. The UA's expectations to establish and maintain a positive work environment are articulated in the Standard for Safety and Standard for Excellence. It can be both helpful and enlightening to review these standards on a regular basis.

Upon completion of *Safety Culture Training for Front-Line Leaders*, participants will be prepared to apply the tools, concepts, and resources that foster a mutually trusting work environment. This cultivates a questioning attitude and secures the willingness of coworkers to raise concerns without fear.

Other new safety and health courses being offered at ITP include *Fall Protection - Competent Person Trainer*, *Trenching and Excavation - Competent Person Trainer*, and *Safe Pressure Testing Operations for Piping Systems*. These courses were specifically developed to help educate and train our members on safe work practices related to the hazards involved in the piping trades regularly encountered by our members. This year the ITF is excited to collaborate on these courses with CPWR – The Center for Construction Research and Training and the Mechanical Contractors Association of America (MCAA).

For all of us, safety must remain in the forefront as a personal and organizational core value on all jobsites. We believe that a strong safety culture embraced by all is essential to ensuring the welfare of our members. We are committed to providing the best tools possible in this effort. These courses, as well as our Standard for Safety, will help us achieve that goal. ■

## Training to Prevent Number One Killer of Construction Workers

**New Fall Protection Competent Person Trainer Course Comes to 2018 ITP**

**Submitted by: Willard "Dale" Walker, OSHA Secondary Master Instructor, UA Local 495, Cambridge, OH**

Every year, we lose thousands of construction workers to jobsite accidents. The number one cause of those deaths year after year is directly related to fall hazards and working at heights. These workers are someone's father, brother, sister, mother, husband or wife. These are important people to us! These statistics don't include the injuries and near misses they face. That is why the new 40-hour *Fall Protection - Competent Person Trainer* course (UA 2158) is being offered at this year's Instructor Training Program (ITP).



In 2018, CPWR—The Center for Construction Research and Training conducted a study of incidents over a 33-year span. They looked at incidents that occurred between 1982-2015. Forty-two percent of the fatalities involved falls. Fifty-four percent of those who lost their lives did not have access to personal fall arrest equipment. Twenty-three percent had the protective equipment, but for some reason chose not to use it. CPWR also found that out of 325 falls, 107 were from heights over 30 feet. This means that two-thirds were not at a considerable height when they fell.

In 2017, OSHA's Fall Protection Standard in Construction (29 CFR 1926 Subpart M) was included in three of the top five most frequently cited serious violations of all standards cited in construction, and six out of the top 10 standards cited were related to fall protection. OSHA cited employers 1,243 times for the failure to properly train employees exposed to falls. Under the North American Industry Classification System (NAICS) code 238220 for Plumbing, HVAC, and Air Conditioning contractors, the number one standard cited by OSHA was the failure to have fall protection.

These are just the employers that saw an OSHA inspector on their jobsite. There are untold numbers of workers at risk for falling every day in construction without the proper training or equipment, and unfortunately the death toll bears that out.

Is more training the answer? Let's look beyond just adding more training and make sure the front line leaders are receiving a higher level of training to better equip them. Deep down as employees we take pride in doing a great job for the contractor and getting the job done safely. We want to finish the job as soon as possible and some days that may cause us to get in a hurry or become complacent, resulting in unnecessary risk taking. When this happens critical decisions regarding fall protection may not be made properly.

This is where the competent person comes in. The competent person is someone who, by training and experience, understands potential and existing hazards and has the authority to stop the work and correct the hazards. The competent person can also make crews more aware of safety issues when reviewing our job safety analyses (JSA's), or method statements, before beginning the job at hand. He/she is a safety leader who can help find safer solutions to completing the work, possibly without workers being at risk of falling. It is imperative that the competent person receive the training he/she needs to help

ensure the safety of other members. Working with peers with years of knowledge and experience in different situations while facing different problems can present significant challenges about how and where to hook up to ensure the job can be completed safely. Having people who know if the fall protection equipment is safe and being used properly will prevent many accidents and potentially save lives.

This course is designed to ensure the instructor knows the different fall protection options, understands the proper application for the equipment, as well as its limitations. Examples are D-ring options, harness types, self-rescue devices, standard changes, etc. Many manufacturers are developing new PPE that is lighter, more comfortable, task-specific such as for hot work, and overall more user friendly.

The course will include hands-on demonstrations by 3M Fall Protection and rescue demonstrations. The course will also take the students through the OSHA 3115 *Fall Protection* course. The new train-the-trainer course incorporates extensive classroom and interactive hands-on training based on the requirements of OSHA regulations, American



National Standards Institute (ANSI) Z359.2 standard, and U.S. Army Corps of Engineers (USACE) EM-385.1-1. The attendee will obtain instructional materials to conduct the EM-385 *Competent Person and Authorized Person* courses, and OSHA 7405 *Fall Hazard Awareness for the Construction Industry* training course at their JATC. Upon successful completion of the course, the attendee will receive a certificate acknowledging they have successfully completed the OSHA 3115 *Fall Protection* course and met or exceeded ANSI and USACE requirements as a Competent Person and Competent Person Trainer.

Instead of just repeating job box talks over and over to employees, let's make sure the persons who can really make a change have the proper training. During 2018 ITP in August in Ann Arbor, the ITF will be offering the UA 2158 course that can help locals take their fall protection training to the next level. Training our members to be designated by their employers as competent persons in fall protection will help reduce the risks from falling that our members face

every day on the jobsite. ITP registration is open and we look forward to seeing you in Course #2158. ■

## Uncovering the Dangers of Trenching

**New Technology-Based Trench Safety Training Coming to 2018 ITP**

**Submitted by: Jeff Berger, Training Coordinator, UA Local 322, Southern New Jersey**



Every day in the construction industry, UA members enter and work in trenches that are most often excavated by a third-party contractor. How safe are these trenches? Do you know or is it just assumed the trench is safe? Was the trench inspected by a competent person before you entered it?

Did you know that one cubic foot of soil weighs between 90 and 130 pounds? One cubic yard of soil can weigh up to 3,000 pounds—equivalent to the weight of a small car. It only takes a blink of an eye for a cave-in to

happen, and you will never hear it coming. It only takes being buried up to your knees to prevent you from digging yourself out.

According to OSHA, there were 23 fatalities related to trenching operations in 2016 alone, which is more than double the 11 deaths that occurred in 2014 and 2015. OSHA's list of the most frequently cited standards for 2017 includes the Excavations standard (29 CFR Subpart P) under which contractors were cited 1,025 times. Violations included the failure to provide the proper protective systems against cave-ins, failure to provide a proper means of access, and the failure to perform daily inspections by a competent person, to name just a few.



In 2017, under the North American Industry Classification System (NAICS) code 238220 for plumbing, HVAC, and air conditioning contractors, the second most cited standard was "specific excavation requirements, 29 CFR 1926.651."

Deaths associated with excavations are on the rise. In response to this troubling trend, this August at Instructor Training Program in Ann Arbor, the UA will introduce Course 2159, *Trenching and Excavation - Competent Person Trainer*. The class was developed to bring awareness to our UA brothers and sisters who in turn will take this knowledge back to their home locals and train their members. This course ties directly to the Standard for Safety and the UA's commitment of ensuring the safety of all our members is kept front and center every day.

Course 2159 is based on OSHA's Excavations standard 29 CFR 1926 Subpart P and incorporates new technologies including e-learning modules, complete instructor guides for competent person and basic level courses, and

2-D and 3-D virtual reality (VR) simulations. The VR simulations will take the learner into a virtual trench where they will experience a variety of scenarios related to trenching hazards. All of the new components were developed specifically to train UA members on the proper methods that should be used while working in excavations. UA instructors who attend the course will learn the role of a Competent Person and why pre-planning and identifying potential hazards associated with trenching and excavations is vital to a safe work environment. They will also learn about the different soil classifications, proper sloping and benching techniques along with shoring and the use of protective support and shield systems.

Upon completion of this course, UA instructors will have the ability to train their members in the responsibilities associated with being designated a competent person for excavations along with the dangers associated with trenching and excavation. ■

## Applying Best Practices to Save Lives

### Safe Operations for Pressure Testing of Piping Systems

*Written by: Pete Chaney, M.S., CSP – MCAA Director of Safety and Cheryl Ambrose, CHST, OHST*

Pressure testing incidents occur more frequently than is known. Much of the time they are "near miss" incidents so many of them don't get reported. However, pressure testing incidents can be devastating, causing serious injuries and even death. That's why at this year's Instructor Training Program, a new course 2160 *Safe Pressure Testing Operations for Piping Systems* is being offered. The course has been developed in a collaborative effort between the UA and the MCAA.



Since pressure testing of steel and copper piping systems is a regular occurrence in mechanical construction, it's important to guard against the complacency that sometimes accompanies performing pressure testing procedures over and over for long periods of time without incident. Most of the hazards associated with pressure testing result from the sudden, unintended release of stored energy. The risk of in-

jury from a failing joint, connection, gauge, valve, fitting or another component increases during the testing process, especially during pneumatic testing. There are also potentially serious hidden dangers from hydrostatically tested piping systems that may result when the system has not been properly drained, and later, serious health problems can arise from static test water lying in the pipe. This a particular concern in potable water and medical gas piping systems. Safe work practices are needed for all types of pressure testing in order to protect the workers performing the tests and the health of the public. The course will cover the most common hazards associated with pressure testing including:

- Flying objects such as valves, flanges, gauges, and fittings;
- Airborne shrapnel from shattered piping system components;
- Oxygen displacement from inert gasses; and
- Flooding near exposed, energized electrical conductors or circuit parts.
- Possible system contamination resulting from improper system drainage after testing.

It is also important to examine the seven major causes of pressure testing incidents.

- Performing Pneumatic Testing When Hydrostatic Testing is Feasible

- Over-Pressurizing a System
- Use of Inadequate/Improper Pressure Testing Equipment
- Improper System/Component Design
- Operator Error
- Inadequate Repairs/Modifications to a System
- Failure to Properly Isolate System Parts
- Failure to Properly Isolate Equipment



The safe work practices associated with the seven major causes will be the primary emphasis in the course. Nate Jacobson from UA Local 400 (Kaukauna, WI) and UA instructor for Course 2160 explains, "This course will give you the basic understanding of the energy that is behind hydrostatic and pneumatic pressure testing. Safety for properly performing these tests will be the most important part of this class. We will utilize classroom and hands-on training to give you a complete understanding of this testing process as well as how to keep you and others safe

while performing it. Fundamentals of hydrostatic and pneumatic testing will be covered all the way to more advanced and difficult real-life situations that we can face on all of our projects." The extensive hands-on training will be performed utilizing piping system trainers constructed to enable mock testing scenarios in a controlled setting and include industrial welded and grooved coupling, as well as HVAC refrigeration piping systems. Students will identify and demonstrate safe working practices required to successfully plan, perform and document pressure tests on these piping systems. Pressure test demonstrations will use a combination of detailed images, videos, and interactive hands-on exercises. Nate Jacobson will be joined by instructors Willie Heiss from UA Local 168 in Marietta, OH, and Dennis Quinn, Safety Director for John E. Green Company in Highland Park, MI. ■

## ITF Congratulates New OSHA Master Instructor

The International Training Fund would like to recognize and congratulate Kevin Hendrickson (bottom right in picture) with UA Local 533 in Kansas City, MO upon his approval as an OSHA Master Instructor in April 2018. Kevin is now authorized to teach the OSHA 500 series classes as a lead instructor for the UA under CPWR, the Center for Construction Research and Training, and the National Resource Center. Kevin has been teaching for the ITF as an OSHA Secondary Master Instructor since 2015. He was audited by CPWR during a recent OSHA 500 course held in Ann Arbor. We want to also congratulate the following UA instructors who completed the OSHA 500 course and are now authorized to instruct the OSHA 10 and 30-hour courses at their JATCs (listed in alphabetical order):

Jeff Harris (LU 648), Dale Hoff (LU 100), Justin Johnson (LU 502), Johnnie Jones (LU 633), Robert Keefer (LU 565), David Kinsey (LU 155), Daniel Knights (LU 638), Brannan Medina (LU 100), Thomas Newell (LU 619), Douglas Newman (LU 619), Charles Posey (LU 565), Tyronne Robertson (LU 50), Timothy Rooney (LU 638), Brandon Simmerman (LU 495), and Richard Walker (LU 192)



## OSHA Regulatory Update

### OSHA Proposes Rule to Ensure That Crane Operators Are Qualified to Safely Operate Equipment

OSHA has proposed a rule to increase the safety of America's construction sites. The proposal clarifies crane operator certification requirements and reinstates the employer duty to ensure that a crane operator is qualified to safely operate equipment. Comments must be submitted by July 5. For details, read the [news release](#).



### Proposed Rule Clarifies Some Beryllium Standard Compliance Dates

OSHA issued a proposed rule to extend the compliance date for certain ancillary requirements of the general industry beryllium standard to Dec. 12, 2018. OSHA's proposal would not extend the compliance date for permissible exposure limits, exposure assessment, respiratory protection, medical surveillance, or medical removal protection provisions, or for any provisions for which the standard already establishes compliance dates in 2019 and 2020. This limited extension applies to all processes, operations, or areas where workers may be exposed to materials containing beryllium that fall under the scope of the general industry standard. The public may participate in this rulemaking by submitting comments during the 30-day comment period. Read the [Federal Register](#) notice for information on submitting comments on the proposed rule.



Source: osha.gov

## "BEAT THE HEAT WITH THE HELP OF OSHA-NIOSH HEAT SAFETY TOOL APP"

Take precautions against outdoor heat while at work with the OSHA-NIOSH Heat Safety Tool. Featuring real-time heat index and hourly forecasts, specific to your location, as well as occupational safety and health recommendations from OSHA and NIOSH.

Available for Apple or Android

<https://www.cdc.gov/niosh/topics/heatstress/>



## API and NABTU Announce Pipeline Construction Safety Training

The American Petroleum Institute (API) and North America's Building Trades Unions (NABTU) recently announced the creation of the Pipeline Construction Safety Training Program that combines the best practices of both the building trades unions and the natural gas and oil industry into a "foundational safety program" that applies throughout all energy infrastructure construction.

API stated in a press release dated April 18, 2018 that the new initiative builds upon existing NABTU safety courses, which were developed by the CPWR, the Center for Construction Research and Training. The first step is a customized OSHA 10-hour construction safety class that will incorporate specific pipeline safety information developed jointly by API and NABTU.

Jack Gerard, API president and CEO, stated, "The program offers a way for industry and our union allies to expand the economic opportunities for workers and to help ensure that industry has a skilled and committed workforce capable of building the energy infrastructure our nation needs to meet ever-growing demand. Safety is a shared priority with the common goal of zero incidents. The Pipeline Construction Safety Training Program is an important milestone toward that goal."

Sean McGarvey, President of North America's Building Trades Unions was quoted as saying, "Our unions represent the safest, most talented, and highly trained skilled craft professionals the world has ever seen. NABTU members from coast to coast are committed to safely and ef-

fectively building the energy infrastructure this country needs – and this collaboration with API reinforces that objective. We welcome the opportunity to work with the oil and natural gas industry to help our members be better equipped with the necessary skills to not just attain a job, but to find a successful career in construction. We have long been focused on creating opportunities to strengthen and expand America's middle class – this effort will lead to growth in America's economy and energy security alike."

API reported that the program will launch and be available to pipeline construction personnel from the United Association (UA), the Laborers (LiUNA), and the Operating Engineers (IUOE). The course is designed to provide industry-specific training including fall hazards, fire safety, and safety in confined spaces. An API-U certificate will be issued upon completion of the course. The certificate is "recognized industry wide as the gold standard for training in oil and gas."

Director of Education and Training Chris Haslinger and Health, Safety and Environmental Administrator Cheryl Ambrose participated in the joint committee of industry professionals on the design of this first training, and will work on future training through the collaboration of Building Trades, Oil & Gas, and Training & Apprenticeships programs.

Source:

<http://www.api.org/news-policy-and-issues/news/2018/04/18/api-and-nabtu-team-up-to-enhance-safety-training>