A Look at Some Important Safety Developments

We are all familiar with the saying “the plumber protects the health of the nation.” The United Association has been instrumental in doing exactly that. Plumbing systems have, without a doubt, saved millions of lives over the past century, but challenges remain.

Just last month, four people in Washington State came down with Legionnaire’s disease, possibly from a mister system in the produce section of a grocery store. A hospital in New York State may have Legionella bacteria in its water supply. Illinois is reportedly spending $2 million to fix a water system linked to the illness. In fact, there have been reports of the disease throughout North America, so the spotlight is shining on the systems where the bacteria can breed.

We have more information about this serious illness in this issue of the Safety Newsletter. We are also including notice of a new OSHA effort to reduce on-the-job amputations. We are also pleased to include a special article on a Local 598 brother who beat cancer related to his work on a Department of Energy site.

We are also pleased to include a guest editorial by Pete Chaney, Safety and Health Director for the MCAA.
All of the information presented in this newsletter is designed to help our members work more safely. Our goal, as always, is to ensure that every member of the United Association comes home at the end of the day in the same shape as he or she started the day. Your safety is our priority.

Risk Management for Building Water Systems

By Rich Benknowski

The Center for Disease Control and Prevention (CDC) informs us that domestic plumbing systems, cooling towers, and warm, stagnant water can provide ideal conditions for the growth of Legionella pneumophila. In 1976, “Legionnaires’ Disease” caused 34 deaths at an American Legion convention in Philadelphia. Recently, an outbreak, traced to cooling tower maintenance, sickened 124 and killed 12. In response, a law is being enacted that will require building owners to inspect their cooling towers quarterly and report them if they are found with bacteria inside. Recent outbreaks in hospitals in other states are prompting similar regulations.

Cooling towers are found in numerous commercial buildings, both small and large. In the cooling season, towers contribute to occupant comfort by releasing to atmosphere the heat collected by the building’s air conditioning system. By design, the water and air mix at different temperatures to allow heat transfer. UA technicians who maintain these systems must be knowledgeable of the science that creates the proper conditions for system efficiency and need to understand the possible risks to themselves and the building occupants.

In UAT Course 330, Service and Maintenance of Cooling Towers, participants receive the latest information and materials on microbial growth, water quality, and inspection procedures. This course prepares UA members to manage the challenges and risks of servicing and maintaining vulnerable building water systems.

Here is the recommendation of ASHRAE Standard 188-2015 for risk management programs of water systems and cooling towers:

- Identify persons responsible for program development and implementation
- Describe the potable and non-potable water systems within the building and on the building site and develop water-system schematics.
- Evaluate where hazardous conditions may occur in the water systems and determine where control measures can be applied.
What Is Legionnaire’s Disease?

Legionnaire’s disease is a kind of pneumonia caused by *Legionella* bacteria. Most people contract the illness by breathing in misty water that contains the bacteria, which thrive in water-borne amoebae in temperatures between 77 and 113 degrees Fahrenheit. It usually takes about ten days for symptoms to become apparent after exposure. Symptoms include chills, fever, cough, muscle aches, loss of coordination, headache and even vomiting. Many people develop confusion and problems with reasoning and thought. Chest x-rays usually show signs of pneumonia.

Sources that allow the *Legionella* bacteria to thrive are hot water tanks, cooling towers, and evaporative condensers in large air conditioning systems in hotels and office buildings, but the bacteria can be found in hot tubs and showers as well. Today, the annual number of cases of Legionnaire’s disease in the U.S. ranges from 8,000 to 18,000.

The illness is treated with antibiotics and has a fatality rate of between five and 30 percent. New York City had its worst outbreak of the illness this year, in the Bronx. Since then, city health inspectors identified *Legionella* in the cooling systems of several public places throughout the Bronx. In August of this year, an outbreak of Legionnaire’s disease was detected at San Quentin State Prison in Northern California. Between July and September this year, there were outbreaks in Canada, France, Portugal, Spain, New Zealand—just about every corner of the world.

Legionnaire’s disease is clearly still very much a public health problem, and UA members can be exposed to the bacteria in the course of working on HVAC systems in public buildings ranging from grocery stores to hotels to hospitals.

OSHA Focuses On Jobsite Amputations

The Occupational Safety and Health Administration (OSHA) recently issued an updated National Emphasis Program on Amputations (NEP) to identify and reduce workplace machine and equipment hazards that are causing or likely to cause amputations. Letters of notice have been sent to numerous establishments in Region III (PA, DE, WV, and the District of Colombia), which have been identified as having higher rates of amputations as reported by the US De-
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Local 598 Member Overcomes Silent Killer

(Official's Note: The following article was prepared by the Building and Construction Trades Department)

Roger Tool sat beside his wife, Ellen, still able to hold her hand as if they were as inseparable as the day they met. They were just a month shy of their 49th anniversary and already looking to “sail way past” their 50th so they could “enjoy all the milestones with their kids and their grandkids.” But these years of enjoyment, of well-earned retirement, almost never happened. And if it weren’t for discovering a lung cancer that was silently preparing to invade his lungs and spread through his body, Roger Tool may have left his wife to experience these joys without him.

A pipefitter out of UA Local 598, Brother Tool spent a quarter of a century working in the active areas on one of the most dangerous sites in the country: the U.S. Department of Energy’s Hanford Reservation. It was one of the original World War II sites, built in 1942 to produce plutonium. Even though nuclear weapons production ended decades ago, Hanford’s nuclear waste is still being disposed of and will be for decades to come.

Back when Brother Tool worked there in the 1970s, he and his co-workers, as he says, “knew hardly nothing” about the materials they were exposed to. Radiation. Asbestos. Beryllium. “I was up to my elbows in chemicals year round,” he explained. “There was even a pint jar of Mercury that you’d take out and play with cause you didn’t know anything different about it.” It was these types of exposures, exposures that didn’t carry the sense of danger that they do now, that tried to take Brother Tool’s later years away from him.

When he heard through his union hall about the Building Trades National Medical Screening Program (BTMed) offering a free medical exam to any construction worker who worked on a DOE site, Brother Tool took advantage of the thorough exam. He received a chest x-ray, a beryllium test, and a hearing test. At the time, everything checked out all right. Years later, as part of their Early Lung Cancer Detection program, BTMed began offering free CT Scans to participants determined to have the highest-risk of lung cancer. Brother Tool met the eligibility criteria and accepted the invitation even though he felt healthy.

This time, however, everything didn’t check out.

The scan detected suspicious nodules in his lungs. Brother Tool returned for a three-month follow-up scan that found a change in the nodules. “I felt good,” he explained. “I had no symptoms of anything.” Little did he know, those nodules were lung cancer.

Brother Tool went in for surgery to remove a cancer known for its tendency to show no symptoms until it’s too late. “Had Roger not done the screening,” Ellen said, “this would have grown. This would have impacted his life. This would have taken his life.”
Tears formed in Ellen’s eyes as she imagined the future that was almost stripped from them. “This is going to give us a lot more years to enjoy our retirement and the fun things we want to do.” Ellen looked to her husband. “To enjoy each other. To travel. Just to,” she smiled, “enjoy life.”

Roger nodded. Because he understood that his health isn’t just about him. It’s about the people he loves. His friends. His children. His grandchildren. And his wife of almost 50 years. This is what he’s thankful for. This is what he gets to enjoy.

If you have worked at one of the covered DOE/AEC Sites listed and would like to receive a free comprehensive medical exam, please contact:

Building Trades Medical Screening Program
1-800-866-9663
www.btmed.org

If you worked at one of these sites and meet the criteria, you may also be eligible to receive a free CT Scan.

**Protecting Our Workforce**

Prepared with the assistance of Pete Chaney, Director of Safety and Health, Mechanical Contractors Association of America

The mechanical construction and service industry has worked diligently to reduce the number of back and other musculoskeletal injuries due to the manual handling of materials. While a number of safe work practices and other protective measures have been established, and all have been effective in helping to reduce injuries, these injuries still occur with too much frequency.

So what can we do to help our workforce? Two of our most frequent causes of injuries are the improper manual handling of materials and falls from ladders. So let’s place the emphasis there.

With regard to reducing manual handling of materials-related injuries, we need to:

1. Emphasize staging the materials as close to the work areas as possible, proper lifting techniques, the use of wheeled materials moving equipment, getting help from other workers when lifting heavy or bulky objects, and involvement in stretch and flex programs before work begins each day and immediately after lunch.

2. Reduce the number of bends and reaches. In other words, get our fitters, plumbers, and service techs off the ground. Where possible, materials should be stored and staged around waist height on racks, tables, boxes, stacked pallets, etc. Our workers must also be trained to place the materials around waist height when they move them from the staging area to their work area. It would defeat the purpose if, for example, a worker took a large fitting from a staging area table only to place it on the ground at his work area where he would later have to bend and reach for it.

With regard to reducing falls from ladders by our workforce, we must:

1. Emphasize that reaching out too far and carrying materials and/or tools in our hands while climbing up or down, are the major causes of falls from ladders. Any loss of tactile sensation in the hands and feet, loss of balance, and loss of strength can lead to injuries from falls.
2. Reduce the number of climbs. Each unnecessary climb up and down a ladder increases the risk of falling. Emphasize limiting the number of climbs by ensuring that workers are pre-planning so that they have everything they need to complete the task on their person in a tool belt, or in a bag they can hoist up after they climb to their working height.

Increased emphasis in these areas by MCAA contractor members, the UA, and UA locals will go a long way toward ensuring that our fitters, plumbers and service technicians can continue to work as long as they want to do so.

New Standard For Safety Video Goes Live!

A video on the UA’s Standard for Safety is now live on www.ua.org/safety. We encourage you to watch this seven-minute video and make use of it to reinforce our commitment to the Standard for Safety.

As always, our goal is to have the safest possible workplace—with no fatalities and no lost-time injuries. We all know how difficult this is to achieve, but we will nevertheless continue to pursue this goal. The Standard for Safety video goes into detail about the components of the standard and why it is so important. We hope you share this with your apprentices and journeymen so they, too, will remember to always put safety first.

2015 safety classes

Course #474  OSHA 502 Update for Construction Industry Outreach Trainer
December 8 - 10, 2015 .................................UA Great Lakes Training Center
Ann Arbor, Michigan

Course descriptions for these classes can be found in the Regional Training Course Catalog on uanet.org at https://uanet.org/regional_training.asp

In Canada, the above safety regulations fall under either the Workers Compensation Board or the Provincial Safety Authority.

Below is a list of websites and links to help you with your health and safety program. Many of these sites have PowerPoints® and pictures that are free to download for your use. Please take the time to look at a few of these valuable resources.

The Department of Labor http://www.dol.gov
OSHA Occupational Safety and Health http://www.osha.gov
Electronic Library of Construction Safety and Health http://www.elcosh.org
Center of Disease Control and Prevention http://www.cdc.gov
NIOSH-National Institute Occupational Safety and Health http://www.cdc.gov/niosh
Safety Toolbox Talks http://www.Safetytoolboxtalks.com
EPA-Environmental Protection Agency http://www.epa.gov
CPWR-Center for Construction Research and Training http://www.cpwr.com
http://esmartmark.org