



Safety News

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

December 2017 | Issue 10

UA General Officers

Mark McManus,
General President
Patrick H. Kellett,
General Secretary-Treasurer
Michael A. Pleasant,
Assistant General President

General Executive Board Members

Patrick M. Dolan, Jr., *District 1*
Kenneth J. Broadbent, *District 2*
Daniel C. Hendrix, *District 3*
Steven S. Breitlow, *District 4*
Stanley M. Smith, *District 5*
Steven Morrison, *District 6*,
Director of Canadian Affairs

Executive Officers

James P. Moss,
Executive Vice President
Mark Buss,
Administrative Assistant to the General President
Bradley M. Karbowski,
Administrative Assistant to the General President
James MacDonald,
Administrative Assistant to the General President Canada

United Association Directors

Thomas G. Bigley,
Plumbing Services
Virgil "Ed" Boone,
Trade Jurisdiction
Tom D. Gross,
Pipeline and Gas Distribution
Christopher A. Haslinger,
Education and Training
Brett C. McCoy,
Metal Trades
Michael P. Mulvaney,
Energy and Infrastructure
Martin D. Naseef,
HVACR Services
James E. Tucker,
Organizing and Recruitment

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



*Cheryl Ambrose, CHST, OHST
Health, Safety and
Environmental Administrator*

As the year draws to a close, I look back on my first seven months as the UA Health, Safety and Environmental Administrator and I am incredibly honored and grateful for this tremendous opportunity to work on behalf of our UA members. I have had a chance to attend several large events, local training centers, and job sites where I had the pleasure of meeting many of you, with many more I am yet to meet. I want to extend a sincere thank you to the countless individuals who have welcomed me, reached out and offered help, and provided guidance and support. Rarely does a day go by that I don't have a conversation with a UA member where I am reminded how committed our people are to constant improvement and asking what they can do to help. For that, I am extremely grateful.

I am excited about several new initiatives in the pipeline for next year. We have partnered with 3M Fall Protection to bring their world-class Competent Person Train-the-Trainer course to ITP in August 2018. We are also making available a Silica Awareness Training module for distribution and use by the local training centers with a projected release by the end of the year. More details are available on page 2.

Beginning in January 2018, I will have the honor of representing the UA on the newly

In this issue

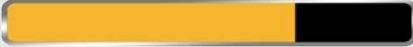
Training Update p2
Pushing Forward with Safe Bolting Training Program p3
Heroes Among Us..... p5
Rock and Concrete Drilling..... p6
ASSE 12000 and You p7

created NABTU Opioid Task Force to address the serious negative impact of the opioid crisis as it has become intertwined with workplace safety and the problem of declining labor force participation.

This year also brought news of the tragic loss of five UA members to jobsite accidents, about which I am extremely saddened and concerned. My thoughts and prayers go out to the families, local unions and members who know only too well the terrible pain that such a loss brings.

As we take this to heart, it only further strengthens the UA's commitment to the future safety and health of our members. In support of this commitment, work is underway to update the Standard for Safety as one of the core values of the UA. This will serve as a foundational tool by which we are able to elevate the conversation around safety within the UA and with our industry partners, to reach higher and build on that strong foundation of safety already established. More than ever, our people will be the solution, the problem solvers. By already safely working millions of hours on thousands of job sites every year, there is success realized. But it is not enough, until every UA member is home safe, **every day on every job!**

TRAINING UPDATE



PROGRESS...

Fall Protection – Competent Person Train-the-Trainer Coming to 2018 ITP

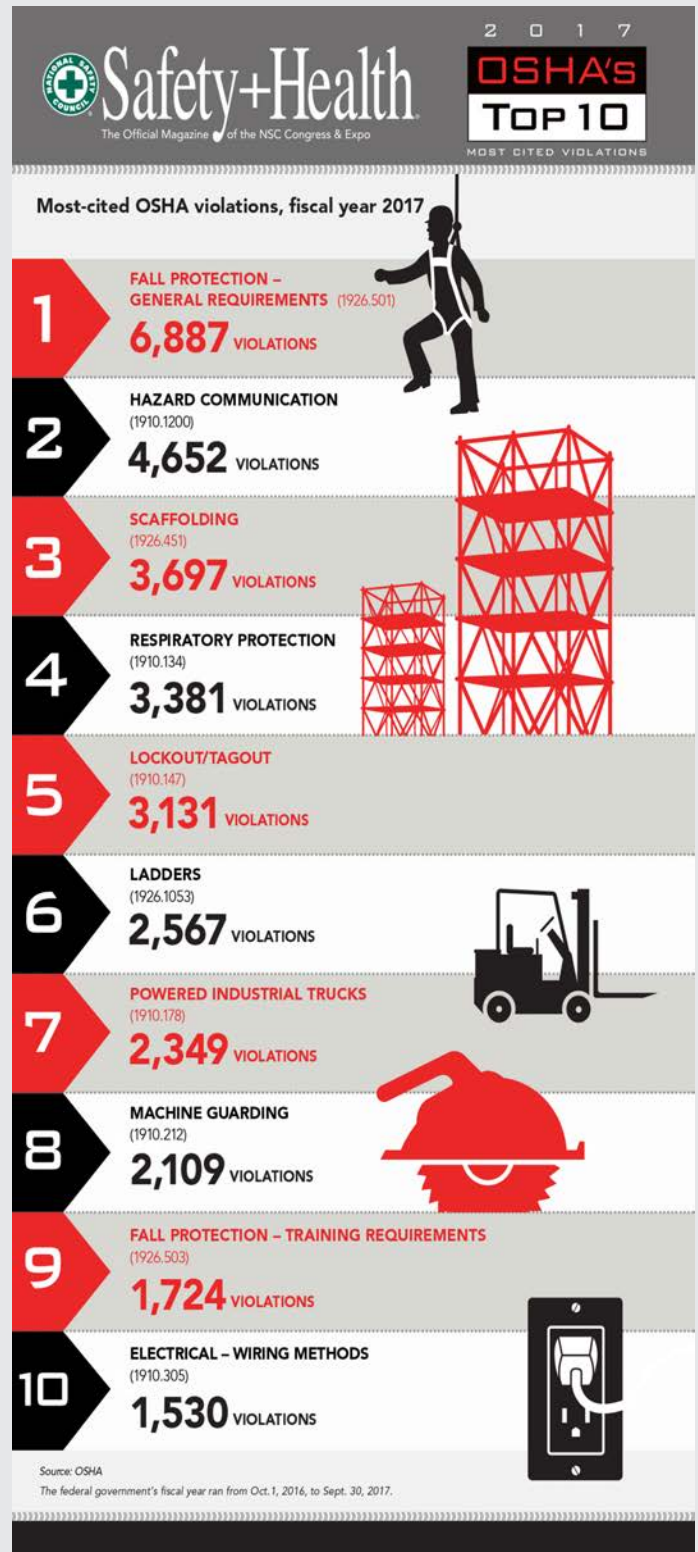
Year after year, the fall protection standard is one of the top 10 standards cited by OSHA, and this year is no exception, listing it at Numbers 1 and 9 of the most-cited OSHA violations. In addition, falls are the number one cause of death in the construction industry and number two across all workplaces.

The ITF has partnered with 3M Fall Protection to bring their world-class Competent Person Train-the-Trainer course to 2018 Instructor Training Program in Ann Arbor, MI. The course incorporates extensive classroom and interactive hands-on training as well as written and practical examinations that are based on the requirements of OSHA regulations and the ANSI Z359.2 standard. It includes the Competent Person, Competent Inspector, and Dropped Object Prevention Competent Person courses that can then be taught at local training centers, along with training on how to deliver effective classroom instruction and practical skills of working at heights. ■



Respirable Crystalline Silica Awareness Training Module Coming Soon

In response to the new OSHA standard on respirable crystalline silica and in an effort to help support local union training efforts, a training module for Respirable Crystalline Silica Awareness Training will soon be available to local training centers. The module will include an easy-to-follow PowerPoint presentation, video clips, knowledge checks and resource materials from CPWR, MCAA and OSHA. ■



Pushing Forward with Safe Bolting Training Program

UA Local 597 Pipe Fitters Training Center Launches Bolting Classes

with Monte Kimes - Training Director, and Paul Stout - Instructor, Pipe Fitters Local 597 Chicago

HOW IT ALL STARTED . . .



It all began in early 2017 when it was brought to the attention of UA Local 597

that some of the major facilities in their jurisdiction were considering adopting the recommendations outlined in ASME PCC-1-2013, *Guidelines for Pressure Boundary Bolted Flange Joint Assembly*. Of interest to the local was the qualification of bolting personnel discussed in Appendix A of the ASME standard. It was clear that facilities wanted improved training for bolting personnel and documented proof of training.

At the same time, work was underway by UA Special Representative Phil Martin and Training Specialist Rich Benkowski to bring the Safe Bolting course to the 2017 Instructor Training Program as a twenty-hour trainer course (UA 2154) which prepares instructors to go back to their locals and teach the two-day UA Safe Bolting Course. The course was launched at the 2017 ITP and is taught by Chris Krantz, Director of Training for Hytorc and Tom Chapdelaine, UA Instructor LU 455, both OSHA 7110 Master Instructors.

After extensive research on the subject and much guidance provided by Chris Krantz with Hytorc, UA Local 597 decided that they needed to provide their members with an avenue to

pursue the ASME Qualified Bolting Specialist qualification by becoming an ASME Approved Training Provider employing numerous ASME Approved Training Instructors. Through this process, they also recognized the value of providing an avenue for their members to receive OSHA 7110 Safe Bolting training in addition to the more rigorous two-day UA Safe Bolting Course.

CONGRATULATIONS, MISSION ACCOMPLISHED!

"We are proud to say that as of October 11, 2017, the Pipe Fitters Training Fund Local 597 Chicago, located in Mokena, IL, is the first union training center in the U.S. to acquire the status as an ASME Approved Training Provider for the Qualified Bolting Specialist program. Also, we have six dedicated instructors who have earned the designation as ASME Approved Training Instructors for this program," explained Monte Kimes, Local 597 Training Director.

In addition, Local 597 instructor Paul Stout is currently qualified to teach the UA Safe Bolting two-day course and is pursuing the designation as an OSHA 7110 Master Instructor as well as becoming a site auditor for the ASME Bolting Specialist Qualification Program. The OSHA 7110 Master Instructor process is on track to be completed in mid-December 2017. Training Director Kimes, applauds Paul Stout's hard work and dedication to the effort, "Paul has many years of experience in the heavy industrial piping industry as a quality control manager and he really understands the importance of these third-party certifications. We are

fortunate to have talented and motivated individuals such as Paul that help Pipe Fit-

"We feel very strongly that this training is critical to the safety of our members and the success of our organization. Bolting is a key aspect in the construction of all types of piping systems and allied equipment."

". . . the bolted joint beside the weld, which is much more likely to be the source of a system failure, should require advanced training and proof of qualification as well."

ters Local Union 597 Training Center adapt and evolve with the technologies currently available."

Brother Kimes goes on to say, "We feel very strongly that this training is critical to the safety of our members and the success of our organization. Bolting is a key aspect in the construction of all types of piping systems and allied equipment. We have always provided advanced training and met qualification requirements for welders. The industry is becoming more aware that the bolted joint beside the weld, which is much more likely to be the source of a system failure, should require advanced training and proof of qualification as well. It is imperative to the safety and quality of the facilities that we build and maintain that UA Local 597 provides that training and proof of qualification."

While the process to acquire the ASME Approved Training Provider status was lengthy and expensive initially, the benefits to the local members will far outweigh the startup costs. Paul Stout, as the instructor tasked with developing these two programs, spent many hours researching and attending training courses. Also required was the design and construction of a training fixture, a means to store all the training aids and classroom materials. The local decided to build a stationary fixture that will safely accommodate up to 18 students at one time. The fixture was laid out to allow simultaneous torquing and tensioning exercises

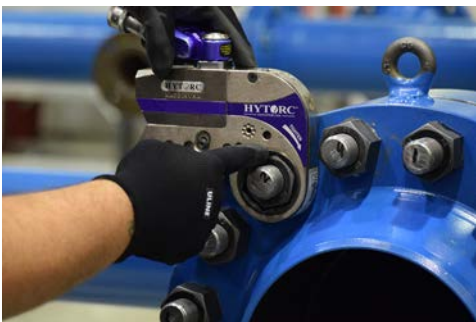


Chris Krantz with Hytorc instructing the OSHA 7110 course of Local 597 in Chicago, IL



without exposing students to line-of-fire and pinch-point hazards. The fixture is equipped with integral rigging equipment to allow students to safely lift the heavy 10" 600-pound flanges. They also designed custom carts to hold the myriad of flanges, bolts, nuts, gaskets, lubrication, and cleaning supplies. These carts allow students to safely and easily transport the over 2,400 pounds of equipment needed to perform the required tasks. Finally, they fabricated every hardware, flange, and gasket defect imaginable so the students could see firsthand the practical do's and don'ts in the field and how to inspect for these issues.

When talking about utilizing the local's apprentices, Brother Kimes explained, "It was very important to us to use our apprentices throughout the entire process. All the fabrication work to build the fixture and the carts was completed by our Local 597 Pipe Fitter apprentices. Even the computer aided drafting we used to design and build the fixture and the carts



was completed by one of our third-year apprentices. It took nearly thirty 6" and 10" butt welds to build the fixture. Our apprentices spent many hours measuring, cutting, prepping, fitting, welding, rigging, and setting the spools required to make our fixture a success. They also artfully completed the cutting, fitting, and welding needed to make our unique and extremely useful material carts. Our apprentices did a fine job and should be commended for their hard work and dedication to quality and craftsmanship."

A FEW LESSONS LEARNED

Overall, Local 597 feels the project went very well. It was time consuming and the cost for material, labor, and tools was substantial. Reflecting upon the process, Instructor Paul Stout said, "In hindsight, we should have built more rigging options from the start. We have plans to modify the structure to include two additional lifting mechanisms. Our original design relied on four stations sharing a single davit arm. We realized during the initial use of the fixture that at least three lifting mechanisms are required to reduce wait time during class. Also, we initially decided to use a portable air source to run the pneumatic torque and tension tools. When the tools arrived, we tested them prior to our ASME audit. It was immediately apparent that the pneumatic J-Gun requires a larger volume of air than our portable compressor could provide. We ran temporary hoses to facilitate the audit and are in the process of installing a dedicated full-size air line near our fixture. Finally, we plan to order additional small tools so that things such as sockets, calipers, and breaker bars do not have to be shared."

A big "thank you" goes out to AMS Mechanical Systems of Burr Ridge, IL for donating a portion of the materials used to build the structure and the consumables used for the class.

Local 597 Pipe Fitters Training Fund is pleased to provide this additional training and qualification to UA members. Congratulations on their achievement as the first union center in the U.S. to achieve the ASME Qualified Bolting Specialist Approved Training Provider status. It has been a long and interesting journey that has taught them many things about bolt-



ing and its importance to the piping industry.

Paul Stout summed up their journey by saying, "We plan to continue in our efforts to ensure that our members are the safest and best trained professionals in the piping industry. We will be ready when the facilities in our jurisdiction call on us to provide trained and qualified bolting personnel."

For more details on the UA 2154 Safe Bolting course, OSHA 7110 Safe Bolting course, or the ASME Qualified Bolting Specialist qualification process, please contact UA Health, Safety and Environmental Administrator, Cheryl Ambrose at 410-269-2071 or ambrose@uanet.org.

Upcoming Training Dates: UA 2154 Safe Bolting - March 27-29, 2018, Ann Arbor, Michigan.

safety HEROES

Heroes Among Us

UA Local 208 Apprentices Put Their First Aid Training into Action

Reprinted with permission from Apollo Mechanical, Denver, CO

At Apollo, we expect every employee to go home safe, every day. It is our culture. We train for it. Recently, that training and the calm, fast thinking of two Apollo employees came into play when there was an accident on one of our jobsites in Boulder, Colorado.

It was Saturday July 8, 2017. Fourth year apprentice Michael Nitura and second year apprentice Jacob Jones were working in the same area as a worker for the general contractor, who was working on a header attached to a spring for a garage door. The tension from the spring ripped loose from the stud and spun towards the worker. He put up his arm to protect his face and the spring hit his right forearm

snapping it and ripping his skin open to the bone; severing several large veins. Michael and Jacob witnessed this and rushed to help, getting him off the scaffolding. Michael removed his belt and fashioned a tourniquet out of it because the blood was coming too fast to stop. Another employee of the general contractor rushed back with a first aid kit and Jacob wrapped the wound with gauze in order to stop the bleeding. They both helped keep his arm elevated and kept the wounded man calm while Felipe Gonzales, a sheet metal fore-

"The tension from the spring ripped loose from the stud and spun towards the worker."

man for Apollo called the ambulance. The EMT's arrived and thanked them for such fast reactions and keeping the injured man calm while waiting for their arrival.

The general contractor held a safety stand down the following Monday, where they said that their employee underwent a successful emergency surgery and is on the road to recovery. Garret, superintendent for the general contractor, thanked every-

one involved in the first aid assistance – which he believes helped save their employee's life.

Thank you Michael and Jacob for fast thinking, and using your first aid training to help a fellow craftsman in need. ■

Thank you to Apollo Mechanical in Denver, Colorado for recognizing UA members Michael Nitura and Jacob Jones for their heroic actions.

Thank you to Zach Collins, Training Coordinator with Denver Pipefitters JATC for sharing the story.



Pictured are: (L) Michael Nitura, LU 208 4th year apprentice and (R) Jacob Jones, LU 208 2nd year apprentice

ITF Offers Grant Opportunity for UA Safety Instructors

The ITF is pleased to announce a special grant opportunity for UA safety instructors in partnership with the MCAA. The MCAA will be hosting the **2018 Safety Directors' Conference at the Marriott Marquis, San Diego, CA, January 23-25, 2018**. A special grant has been made available to assist sending eligible instructors to this event. Safety is a core value for the United Association and we encourage our local union training programs to take advantage of this opportunity.



<http://www.mcaaevents.org/safety-directors-conference/>

FOR MORE INFORMATION
 Education and Training Department
 410-269-2000
 Tammie Parezo (ext 4074)

Rock and Concrete Drilling: Can a new drill bit reduce hazards and increase productivity?

Research shows sharp drill bits mean less dust, noise, vibration & faster drilling

Concrete drilling is dusty, loud, and exhausting work. If you've spent time drilling holes with a hammer drill in order to hang ductwork, pipes or conduit, you know how grueling this can be. You probably already know that a sharp new drill bit makes the work easier – but did you know it can also make the work safer and faster?

That's the takeaway from important new research by Dr. David Rempel and his team at the University of California's Center for Occupational and Environmental Health.

increases substantially as a bit wears down from continued use.

Over the last several years, Dr. Rempel's team has earned recognition by designing drill jigs that reduce force and vibration and the risk for musculoskeletal injuries (e.g., back, shoulder, etc.) for workers engaged in concrete and rock drilling. Telpro, an equipment manufacturer, adopted Rempel's overhead drill jig design for a commercial product (DrillRite™). Engineer Alan Barr, a Rempel colleague, has begun production of a universal drill jig (ErgoMek) suitable for drilling at any angle.

The team has now designed a test bench system (pictured at right) that allows the researchers to test for and measure potential exposures to several hazards generated by different hammer drills – information that can help contractors and

ment to measure a worker's potential exposure to silica dust, noise, and the force and vibration that can lead to musculoskeletal injuries. The test bench also measures productivity – that is, how quickly the drill penetrates the concrete.

In their experiments, the team used a common hammer drill and carbide-tipped bit, isolating the effect of wear on the drill bit. As expected, heavily worn bits took much more time to penetrate the concrete than new ones, adding up to 60% to the time required to drill a 3" deep hole. Moreover, the worn bit increased the risk for illness and injury, generating about twice as much airborne silica dust, was almost two decibels (dBA) louder, and produced a small but significant increase in handle vibration. Combined, that means that a worker using a worn drill bit is exposed to more dust, noise and vibration, and for a longer period of time. These results underscore the importance of replacing worn bits.

In a separate study, the team found that the best measures of wear on a carbide-tipped bit were reduced width of the tip and rounding of the tip shoulders. Contractors and workers can check the condition of a bit by following these wear patterns.

While vacuums to control the dust and hearing protection will still be needed, the increase in productivity along with the reduced exposure to silica dust, noise, and vibration makes a strong safety and business case for regularly replacing worn drill bits. ■

Source: CPWR - The Center for Construction Research and Training



In three experiments, the research team showed that a worker's exposure to noise, tool vibration and airborne silica dust in-

workers select and purchase safer tools. The test bench uses a mannequin torso attached to a slide mounted with equip-

ASSE 12000 and You

Protecting Yourself and the Patient

by Dennis Molinar, Local 172 Plumbers & Pipefitters, South Bend, IN

Article originally published in July 2017 issue *Backflow Prevention and Plumbing Standards*

Reprinted with permission – ASSE (American Society of Sanitary Engineering)

ASSE 12000 certification training gives you the knowledge to have a successful career working with hospital staff and patients – it gives you knowledge of bacteria and viruses, how they can harm you and immunocompromised individuals and gives you the understanding needed to protect yourself and patients. The ASSE 12000 certification ensures that individuals take full responsibility in knowing and understanding the standards within ASSE/IAPMO/ANSI Series 12000, Professional Qualifications Standard for the Health and Safety of Construction and Maintenance Personnel, by



While working on an oxygen outlet, the head wall needed to be removed and this is what was found. Hospital staff was notified immediately, some of it dated back to 1978.

using third party testing and examination. The standard series covers waterborne

bacteria, such as Legionella and how it's contracted; viruses such as HIV and hepatitis; and types of mold such as aspergillus and OPIM (other potentially infectious materials). Every individual who carries the ASSE 12000 certification has successfully completed OSHA 10 or OSHA 30, and has scored a minimum 80 percent on standards ASSE 12010, 12030, and 12040. Certification holders must recertify every three years by completing a minimum of one hour of classroom training and passing a 25-question exam covering the three standards. We know that protecting the patient is first and foremost but ASSE has taken steps to protect the worker. When protecting the worker, we are taking the added steps to protect the patients.

After training to the ASSE 12010 standard, the certified individual will be able to recognize possible exposure and the criteria for work, cleaning, and disposal of the proper PPE, and know employer responsibilities. ASSE 12010 covers mode of transmission, pathogens, biohazards, and infectious disease, just to name a few.

After training to the ASSE 12030, the certified individual will recognize sources of waterborne pathogens such as *Legionella*, how water temperature directly affects growth, and

how microorganisms, bacteria, and OPIM may be transmitted.

“When a hospital looks to qualified individuals to break the chain of infection, they really are looking to save a life, which to me, is priceless.”

ASSE 12040 covers Hospital-Acquired Infections (HAI's), Infection Control Risk Assessment (ICRA), and life safety plans.

After training to the standard, the certified individual will understand control barriers, housekeeping, interruption of utility services, walk-off mats, and ways of breaking the infectious chain.

By putting these standards together, we'll now have a trained individual who can protect themselves, staff, the public, and their family, but most importantly, protect the patient.

The importance of this for hospitals is in securing the most qualified individuals to construct, remodel, or repair areas in their facility. What this does for hospitals is gives them confidence to continue to



Emergency repair of a deionized water line on the dirty side of the sterile processing department (SPD). A barrier was created with HEPA filtration to contain everything possible.

grow and upgrade their facility, and help ensure we have the best health care we can get. By us, the workers, doing our part, we help patients have shorter stays in the hospitals. Shorter stays in hospitals means more patient turnover which means more profit. Using qualified individuals also means cutting down on HAIs, which helps cut cost on insurance. One in three HAIs are fatal - that's about 99,000 people each year who die from an HAI, the fourth leading cause of death in the U.S. When a hospital looks to qualified individuals to break the chain of infection, they really are looking to save a life, which to me, is priceless.



In summation, the ASSE 12000 is very important to hospitals. Why? 1) Protection of patients and staff. 2) Protection of visitors. 3) Protection of the workers. 4) Cost savings and profit.

When I first introduced the ASSE 12000 certification to the hospitals in which we work, they were very interested in listening. Some of the staff felt under-informed and very eager to learn more. I made no comparisons to other programs but pointed out positives in having certified individuals. I have been in the healthcare industry for 25 years and have experienc-

es from the good (present), the bad (past 5-10 years), and the ugly (10 years past) to share. Hospitals want to know you really want to be there to protect their best interest. Help them with questions, show them you are knowledgeable in this area, invite them to sit in on the ASSE 12000 class, and don't be afraid to share what you're teaching or learning with them. Build confidence and trust. I have done these few things and now hospital staff (ICRA managers) call and ask for help, even if it does not involve us. If we are on the project, they ask what we are going to do and how are

we going to protect all involved, and they make the ICRA plan off of our recommendations.

When working in a hospital, keep in mind that doing the right thing, not only when someone is watching, but also when nobody's watching, is your responsibility. Patient and staff responsibilities fall upon everyone on the job site, not just a few. Always remember to save one life is priceless. Treat the person next to you as if you are related to them. ■

The American Society of Sanitary Engineering (ASSE) has done a great job with the program, leaving it open so we

can continue to add and grow the ICRA training and meet hospital needs. The UA, working with CPWR – The Center for Construction Research and Training, has developed an awareness training program which can be taught in eight hours. Depending on the region, the needs of the hospital can be met with either the ASSE 120000 certification or the UA ICRA training. UA 2157 Infection Control Risk Assessment Practitioner course is taught at Instructor Training Program in Ann Arbor and can be molded to meet your specific training needs. The UA, CPWR, and ASSE are all working to provide the necessary training to help you protect patients and our workers.

Learn more about the ASSE 12000 at www.asse-plumbing.org/certifications.html

About the Author – Dennis Molnar is a 25-year member of UA Local 172 Plumbers & Pipefitters in South Bend, IN. In those 25 years, he has worked in hospitals, labs, and installed a complete laboratory automated system (CLAS) – one of only two in the world. Dennis started instructing three years after completing his apprenticeship, is a graduate of the UA Instructor Training Program (ITP), and is now an instructor for the UA 2157 Infection Control Risk Assessment (ICRA) Practitioner course offered at ITP in Ann Arbor, Michigan.



Wishing You a Safe and Happy Holiday Season