



# TRAININGnews

UA Education and Training Department

APRIL 2023 | ISSUE 41

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## Message from Raymond W. Boyd Director of Education and Training



We are incredibly excited to carry on the mission that has been set before us by previous directors of the International Training Fund—to continue to provide the resources and educational materials United Association's local union training centers require to prepare the rank-and-file for the future. The International Training Fund's (ITF's) mission is to support the more than 364,000 members of the United Association with the latest industry technology and resources related to education and training. The entire ITF staff is always ready to assist you with your educational needs, and we are eager to listen to any innovative ideas you're implementing in your home locals.

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We started 2023 with a bang—on February 8th and 9th—with our Pipe Trades Training and Technology Conference in Orlando, FL. Earlier in the week, we held our Training Directors Meeting with more than 250 training directors and assistant coordinators in attendance. On February 7th, the UA Organizing and Recruitment Department initiated an Organizing Blitz where training directors, coordinators, and training specialists, among others, participated. The blitz was a great opportunity for our UA

## MISSION STATEMENT

The mission of the UA Education and Training Department is to equip United Association locals with educational resources for developing the skills of their apprentices and journeypersons. By thus facilitating the training needs of the membership, we maximize their employability and prepare them for changes in the industry. We are committed to making training opportunities available across North America, allowing members to acquire new skills and remain competitive in the industry regardless of geography. In this way, we are determined to meet the needs of the piping industry and enhance employment opportunities for our members, while remaining fiscally responsible to the beneficiaries of the fund.



INTERNATIONAL  
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educators and organizers to work together to increase the workforce of the United Association. More than 150 teams of four hit the streets to spread the word about the benefits of union membership and to learn from one another. The ITF looks forward to working with the Organizing and Recruitment Department in the future. General President McManus laid out a clear message for the leadership and membership of the UA, which was to ensure that we are all pulling in the same direction to support our membership in securing and completing the work ahead. The Education and Training Department is ready.

As we continue to move forward, it's time for us to "Mentor Our Future." The success of the United Association relies on us investing in the young men and women who have joined our ranks. It is our responsibility to open those doors and to create definitive pathways for our future instructors and leaders of the United Association. It's time for us to start looking for our future foremen, general foremen, pushers, instructors, and job supervisors. That journey begins with treating every member fairly and offering every qualified member the opportunity to participate in a leadership role in our organization. These opportunities start with training.

This year, in Annapolis, MD, we held our New JATC Training Directors/Coordinators Meeting at Headquarters. We had more than 36 participants from the United States and Canada. A sampling of the topics discussed included:

- The overall structure of the UA Education and Training Department, the International Training Fund, and the Instructor Training Program
- Apprentice Selection Process
- Structured Interviewer Training
- Diversity, Equity, and Inclusion

We're looking forward to continuing the momentum that we have started in 2023. To help prepare our membership for the work ahead, I have listed some of our new projects below.

- Course #8047 Semiconductor Orbital Tube Welding
- Course #8048 Semiconductor Plastic Fitter
- Course #8049 Semiconductor Stainless Steel Fitter
- HVAC, VR, and 3D Simulators
- VRV/VRF Daikin
- Peer Support for Mental Health and Suicide Prevention

Additionally, our 2023 Instructor Training Program (ITP) is fast approaching. This year, ITP is scheduled at Washtenaw Community College (WCC) from August 12th through the 18th. Registration will open in May. Last year, in 2022, was the first time we invited the UA Future Instructors to WCC. We were honored to have 123 attendees. I'm proud to say that the ITF will, once again, provide a grant for UA local training centers to send one

future instructor apprentice to this year's ITP. Please take advantage of this excellent opportunity to secure our future.

As we continue to unite toward our common goals, there is no doubt that the Education and Training Department will assist the United Association in achieving another 133 years, and we will pledge to continue to provide the best training in the building trades industry. ■

## Preparing for the Future

*Submitted by Michael Galfano, Assistant Director of Education and Training*

I hope this newsletter finds each of you well as we prepare for a busy 2023 training schedule. Since 2019, I have been on staff with the ITF as a Pipefitting Training Specialist. As of January 1, 2023, I was appointed Assistant Director of Education and Training. I am truly honored and humbled to serve the UA membership in this capacity. My primary responsibilities include coordinating special projects as Director Boyd assigns. Other duties include oversight of pipefitting training initiatives, certifications program administrator, curriculum development, ITF grants, EPRI and NMAP steering committees, and as the UA Bookstore and INAC Administrator. I promise to represent our membership and organization to the best of my ability.

As we have all heard, the UA will be experiencing incredible job growth in every sector of our industry, including the commercial, industrial, semiconductor, healthcare, and infrastructure sectors, to name just a few. This work will provide our members with many job opportunities for years. With that being said, we must plan for specialized training and certifications to meet these job requirements. We must also continue to support and meet the demands of our existing customers and end-users. So, how do we meet these challenges? One answer is simple—training. As General President McManus has said, "We provide skilled labor to our signatory contractors."

I encourage all directors and coordinators to evaluate their current training programs and needs. Do you have your certification programs established? Do you have co-instructors to cover classes? Will you need to hire additional instructors? Have you updated your technology courses and equipment? Are you preparing for specialized training to support work coming to your jurisdiction? Do you have to adjust your training schedules and offer more classes during the week? Are your curriculums and standards up to date? Are you utilizing UA/ITF resources? Will you send your instructors to regional and instructor training?

The ITF has updated all craft curriculums submitted as part of the National Apprenticeship Guideline Standards and approved by the U.S. Department of Labor on November 21, 2022. Updated craft curriculums will reflect Instructor Training Program course offerings and current training technology initiatives. These curriculums are intended to be guides or supplements to help locals incorporate training initiatives to meet the needs of their signatory contractors.

How can the ITF help with your training needs? Regional classes are currently being offered and are listed on [uanet.org](http://uanet.org). Instructor Training Program registration is scheduled to open in early May. Please review course descriptions with your instructors before registration. Make sure course prerequisites have been satisfied before registration.

"The mission of the UA Education and Training Department is to equip United Association locals with educational resources for developing the skills of their apprentices and journeymen. By thus facilitating the training needs of the membership, we maximize their employability and prepare them for changes in the industry. We are committed to making training opportunities available across North America, allowing members to acquire new skills and remain competitive regardless of geography. In this way, we are determined to meet the needs of the piping industry and enhance employment opportunities for our members while remaining fiscally responsible to the fund's beneficiaries."

Please feel free to contact me at [mgalfano@uanet.org](mailto:mgalfano@uanet.org) (708) 910-8411 with any questions and let me know if I can be of any assistance. ■

## How Peggy Sue Can Help the UA Recruit More Women

*Submitted by Laura Ceja, UA Special Representative*

It's been a busy 2023 already, and I know this year is going to be a good year for the UA. Our General President, Mark McManus, announced at the Pipe Trades and Technology Conference that for the foreseeable future, we would have tons of work and pipe pyramids the size of mountains to install. To get the job done, the UA needs workers! That is why our recruitment efforts will continue to be a priority, emphasizing recruiting more women and other underrepresented groups. To that end, there are several things I have been working on and information I want to share with you.



First, I have rolled out wallet-size recruitment brochures.

Unlike the larger brochures we hand out at recruitment events, these smaller brochures are about the size of a business card and are designed to be carried by our members in their wallets. Training Directors can order these brochures and distribute them to their members at local training centers. Each member

can then be encouraged to carry one of these brochures in their wallet at all times. When a member meets someone interested in the UA, rather than try to explain what the UA is and what we do, they can reach into their wallet and give them the brochure. This small brochure is packed with information about the UA and how to join. We have all had the same experience at get-togethers or parties. We start talking about the UA and the trades, and the next thing you know, someone asks how they can join. Or, if they want more information, these little brochures will allow our members to show interested persons what the UA is all about rather than trying to explain. One brochure is worth a thousand words! No doubt, these brochures will help us spread the word and get the workers the UA needs. Training Directors, you can order these brochures at: [uajoin.org](http://uajoin.org).

Next, March brought us *Women in Construction Week* and *International Women's Day*. In this same month, I met with all of the new training directors at UA Headquarters. In keeping with celebrating women in the trades and the UA's recruitment efforts, I told these brand-new training directors the story of the most famous plumber no one has ever heard of.

Let me explain. If you've listened to Buddy Holly's "Peggy Sue," then you were hearing a song about the world's most famous plumber. That's right, Peggy Sue was a plumber! When Buddy Holly was looking for a young lady that epitomized the girl-next-door for one of his songs, he chose his drummer's girlfriend and high school classmate, Peggy Sue Geron. Very few people know that after being Buddy Holly's muse, Peggy Sue moved to California, where she became the state's first licensed woman plumber. And unlike in the movie, *When Peggy Sue Got Married*, she married a plumber, not Nicolas Cage.





Buddy Holly (left), Peggy Sue (upper right, 1957), Peggy the Plumber (lower right, 2017)

I remember my dad telling me the story of Peggy Sue, the plumber, when I was nine years old after listening to the song on the radio. I didn't believe him; my dad could tell some whoppers. But my dad was a union guy and a musician, so that's how he knew. I'm sure he didn't realize he had planted the idea of becoming a plumber in his little girl's mind. I remember changing the words to the song and singing it to my younger sister, "If you knew Peggy Sue was a plumber too, you wouldn't feel so blue." At the time, I thought my dad made up the Peggy Sue story to help me get over Santa Claus, but unlike Santa, Peggy the Plumber turned out to be real, and she inspired me. Peggy Sue was one of the many influences that helped get me into the trades and the UA. That is why I made sure the new training directors and business managers heard this story because, for too long, we have yet to be aware of these women in the trades that could be used to inspire and recruit young women. We have to ensure young women understand the girl next door can become a plumber. If young girls knew that Peggy Sue could thread pipe as easily as she could do the Twist, we would have a lot more women in the trades.

And finally, I am pleased to inform you that NABTU has announced the dates for this year's Trades Women Build Nations (TWBN) Conference. The Conference will be held in Washington, D.C., December 1-3. TWBN has become the largest recruitment and



retention event for tradeswomen worldwide. I hope all of you will send a Peggy Sue from your local and help us make this event a huge success, and heck, you can send a Buddy Holly, some Comets, Coasters, Platters, or Drifters, and everyone is welcome. We hope to see you there! ■

## Piping Professional

*Submitted by Robert Derby, UA Training Specialist*

As an organization, we are represented by many different crafts—pipefitter, plumber, steamfitter, sprinkler fitter, HVACR technician, welder, metal trades worker. We are often referred to as construction workers, skilled trades workers, or mechanics. Simply grouped as part of the blue-collar workforce.

For many, there is a sense of pride that is associated with being something—something that defines us as a contributing member of society. "I am a pipefitter" or "I am a plumber" or "I am a journey worker" indicates a level of achievement. But for some, there could be a level of shame that is associated with being part of the blue-collar workforce. I strongly disagree with this shame. However, through my career, people that I have worked with have said that they do what they do because they can't do something else. Or, that they do not want their children to get into the trades. As a piping professional, I have always been proud to use my given talents, developed skills, and knowledge to earn a living.

We acknowledge that journey status indicates a level of achievement. What achievement? Is it a license? Is it a certification? It is an accomplishment that indicates that certain skills and knowledge have been obtained. Skills and knowledge that give an individual the ability to perform tasks that others cannot do without specialized training. Ultimately, achieving journey status identifies us as educated professionals—Piping Professionals.

There are stereotypes and preconceived notions that prevent us from being viewed as the piping professionals that we are. Unfortunately, some of us validate the stereotypes by the way we speak, dress, and conduct ourselves on and off the job. Too often I have been told that most construction workers (place the craft of your choice here) do not represent a professional image. We have collectively created that image for ourselves, which means, we can recreate a positive image as piping professionals. We can do this!

We can hold one another accountable, just as we do for performing the required tasks to complete a job. We would not



accept a fellow worker who never tightened fittings or flange bolts because that would reflect negatively on our trade and on our local union. If we hold our professional image in the same high regard as we do our performance, we can change our culture, and that is what it is going to take—a culture change. We must conduct ourselves as professionals to be accepted as professionals. The way we speak to one another and to other craftspeople are scenarios in which we can begin to improve our image. Consideration must be taken when we choose how we dress on the job, which should not be taken out of context. Some jobs are extremely dirty or increase the rate at which clothing wears out, and at the end of the work day, we will resemble our environment, however, proper clothing should be non-offensive and in a condition that is safe and acceptable for the tasks being performed.

When a customer/end-user has UA members arriving on their jobsite, there should be an expectation that PIPING PROFESSIONALS have arrived. Those end-users should witness a high level of respect from the men and women who represent signatory contractors and local unions. That respect should be experienced through the way we communicate, dress appropriately, and the environment that we create. Together, we can promote the professional brand of the UA. As we continue to present ourselves as piping professionals, the culture will change. ■

## UA Training on a Global Stage

*Submitted by Joseph Fernandez, Jr., UA Training Specialist*

"No one trains like the United Association" is a statement UA brothers and sisters know well. We can easily take it for granted because it's our way of life and the only way we know how to do it. This statement didn't sink in for me until I heard the same comment from other countries.

I recently traveled to Frankfurt, Germany, and attended the Plumbing Champions Challenge at ISH, which partnered with The International Water, Sanitation, and Hygiene Foundation (IWSH). This event coincided with ISH Expo 2023, the world's largest trade expo focusing on bathroom design, water conservation, sustainable heating, and air conditioning technology. This year's total number of exhibitors was 2,025, with nearly 154,000 visitors, easily making it the largest trade show I have ever attended.

In addition to the Plumbing Champions Challenge and ISH Expo, the World Plumbing Council (WPC) also held its annual

meetings. The WPC's mission statement is "To promote the role of plumbing in improving public health and safeguarding the environment, by uniting the World Plumbing Industry, for the benefit of all."

The WPC annual meetings took place from March 13 – 17, 2023, where speakers from several countries presented on various subjects such as decarbonization, electrification, and hydrogen technology. The speakers also spoke about implementing said subjects throughout different countries worldwide.

One of the trip's highlights was the opportunity to discuss different training strategies and ideas with our training counterparts from Australia and Ireland. I realized that they face many of the same challenges we have in North America—lack of skilled manpower and recruitment.

The purpose of the Plumbing Champions Challenge was to take apprentices from around the world and have them work together to accomplish a common goal. This year's goal was to assemble, transport, and install a portion of the plumbing system donated at a local community sports complex, Eintracht Frankfurt Nidda-halle Sports Club.

Representing the UA from the United States was Alex Svetz from Plumbers Local Union 27, Pittsburgh, PA. Brother Svetz was the 2022 International Plumbing contest winner at the Instructor Training Program (ITP). Also representing the UA from Canada was Elijah Sommers, a fifth-year apprentice from Local Union 527, Southwestern Ontario, Canada.



UA training was on full display as brothers Svetz and Sommers worked alongside 10 other apprentices representing Germany,



Liechtenstein, New Zealand, Australia, and Ireland. These brothers were tremendous ambassadors for the United Association. Several comments were made throughout the week among the participants and spectators regarding their professionalism and knowledge of the trade.

The Plumbing Championship Challenge was an opportunity to showcase what UA training is all about globally, and they did not disappoint. Not only did these brothers display leadership, knowledge, and work ethic that is expected from a UA craftsman, but they also confirmed what we already know, "No one trains like the United Association." ■

## Training for Semiconductor Work

*Submitted by Randall Gandy, UA Training Specialist*

Welding has become increasingly high tech allowing skilled craftspeople to elevate their quality of work, increase productivity, and optimize safety. Coupling these advancements with the increasing need for qualified craftspeople, the UA has never had a more significant opportunity to be the most well-qualified labor force in a growing industry.

The UA continually makes strides to improve the quality of education and training offered to its members by providing qualified personnel, the most up-to-date equipment and resources, and specialized training classes that align with the evolving needs of the industry. This initiative will prove advantageous as semiconductor and heavy industrial work become more prevalent and signatory contractors begin to look to the UA for qualified welders and fitters trained to the highest of standards.

With the increasing demands for certified orbital tube welders, plastic fusion specialists, and stainless-steel fitters, the UA Education and Training Department has made strategic advances to provide instructors and students with the resources required to promote successful training. To further advance training, the "Semiconductor Orbital Tube Welding" course (8047) has been successfully updated, and two new courses, "Semiconductor Plastic Fitters" (8048) and the "Semiconductor Stainless Steel Fitters" (8049) courses have been developed. These new advanced training courses will enable UA members to maintain and elevate their skill levels and professional expertise, allowing signatory contractors to leverage a competitive advantage when bidding work. Today, owners have increased expectations that welders possess the highest skillsets and can maintain that high standard with increased productivity. This level of expertise can

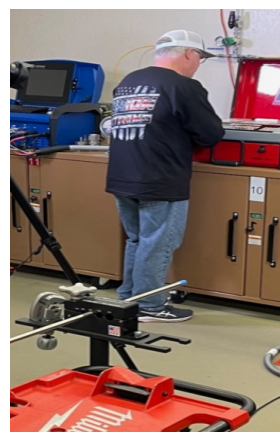
only be maintained if we are diligent in training our members. Being part of a highly trained workforce will secure work for UA members for years to come. Our responsibility as UA instructors is to ensure that UA members who perform work are knowledgeable and proficient in using new technology and the latest equipment. Quality training is what sets the UA apart from the rest. Please take the time to review our exciting new offerings.

### 8047 Semiconductor Orbital Tube Welding

This is a 50-hour instructor's course intended to provide each participant with the techniques and materials needed to instruct the orbital fusion welding (no filler wire) course as used in semiconductor, pharmaceutical, biotechnology markets, and in food processing plants. This course is designed for UA instructors with a TIG welding background who must have



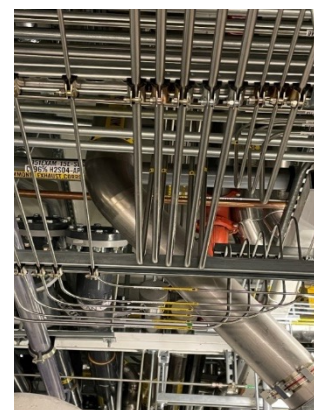
either the UA 14, 38, 41, or equivalent certification that requires a backing purge or Orbital Tube certification equivalent to the UA 18A. The new standardized Orbital Tube Welding Program is designed to provide each local with the ability to certify Orbital Tube Welders at a local level. As we move forward, journey workers of the piping trades are the key players and will be responsible for maintaining the high level of performance for which we have long been recognized. We aim to assist each local in the expertise needed to improve their



teaching techniques and to expand their technical knowledge, giving each of them the ability to train quality journeypersons at a local level.

### 8049 Semiconductor Stainless Steel Fitter

The industry is in demand for high-purity tube installers with cleanroom protocol. This course is specifically designed for UA members seeking proven tube bending, isometric drawing design, proper handling, and installation techniques from experienced UA instructors. Individuals will be taught to identify stainless steel tubing type and grade. Students





will receive instruction on how to set up inside diameter purge of tubing to prepare for severing, facing, and orbital welding. Enrolling students should possess basic math, isometric drawing, and tube bending skills.

### 8048 Semiconductor Plastic Fitter

UA members need to demonstrate and understand plastics in the semiconductor environment. This course will cover PVC and CPVC bonding, Hot PVC containment pipe bending, and IR fusion with PVDF and Polypropylene pipe systems. The bonding class will cover the ASTM standards and industry installation practices with a hands-on PVC solvent cement bond, including proper installation of PVC flange and union installations. The Hot

PVC containment piping course will cover bending techniques of clear PVC pipe into simple 90s to multiple offset bends on the bend table. The IR classes will cover the IR 63+, 110+, and 225+ fusion equipment. This course will cover training manuals and hands-on with the three Georg Fischer machines. After the Semiconductor Plastics Fitter course, each UA member shall have an opportunity to complete the GF IR welding and UA Bonding certification performance tests.



The UA takes pride in continuing to offer its members the most competent means available to obtain the skills needed for their work. Adopting these training courses is a continuation of General President McManus' commitment to ensuring that the best-qualified personnel is available for all future pipefitting work in the piping industry. ■

## Normalizing the Important Conversation of Mental Health

*Submitted by Micheal Hazard, UA Training Specialist*

With more than 800 UA organizers, training directors, contractors, JATC members, business managers, and UA Officers in attendance at the recent 2023 Organizing and Pipe Trades Training and Technology Conference in Orlando, FL, the conversation of mental health was center stage.

UA General President Mark McManus delivered a personal message to raise awareness and voice his support of the mental health movement in the UA. Dr. Sally Spencer-Thomas joined us to shine a light on just how many of us have been affected by mental health issues in one way or another. It was truly amazing when Dr. Sally had all the lights in the room turned off and then asked each of us to turn on our cellphone lights as she asked the following questions: Have you lost a loved one to suicide, overdose, or other consequences of addiction? Have you ever walked through your dark night of depression, anxiety, addiction, or trauma or felt overwhelmed? Or, have you been a support person to someone who has walked that path? Do you support the mental health movement at the UA? Question after question, more and more lights lit up until the entire room was full of shining lights.

These messages from General President McManus and Dr. Sally set the tone for the entire week and spurred many conversations. Normalizing conversations about mental health issues this way is a huge step forward in breaking the stigma surrounding mental health that keeps so many people from seeking help. This conference and these conversations happening this way are what the entire VIP team has been hoping for since we began building our VIP Member Assistance Program (MAP) years ago.

It has been demonstrated many times over that the UA is full of great people who want to help and support one another, but when it comes to mental health issues, many feel that they don't have the tools or skills needed to help someone who is struggling or in crisis. I am writing today to tell you that those days are over. We now have those tools in our toolbox. Working with Dr. Sally Spencer-Thomas and Eduardo Vega, we have developed two 20-hour courses focused on suicide awareness and prevention, building mental health literacy, and developing peer support skills. Along with these course offerings, we have a series of 52 toolbox talks, 12 microlearning videos, and a peer support implementation guide.

These tools are called working upstream, which can prevent mental health issues from reaching a crisis stage. Normalizing conversations surrounding mental health and creating a help-giving, help-seeking working environment opens the door for people to ask for help. We don't have to be doctors to help someone. Peer support is all about coming alongside someone you are concerned about, starting a conversation with them, listening to them, and then being a bridge to mental health resources if needed. Often, when people feel heard and supported, it relieves them of their despair.

We must come together to break the stigma surrounding mental health issues. Please make sure your co-workers, your families,



and your friends all know that it is okay not to be okay and that it's okay to ask for help.

If you or someone you know is experiencing a mental health crisis or is thinking of suicide, call 988. In dire emergencies, call 911. You don't have to be experiencing a crisis to call 988. You can also find a wealth of information on the 988 website. ■

## A New Instructor Resource We Can All Build

*Submitted by Trenton Mauk, UA Training Specialist*

If you participated in training at least seven or more years ago, you might remember an excellent material resource tool for instructors that was available on UA University. Because of copyright issues and third-party material being uploaded, we had to drop this portal until we found a suitable replacement.

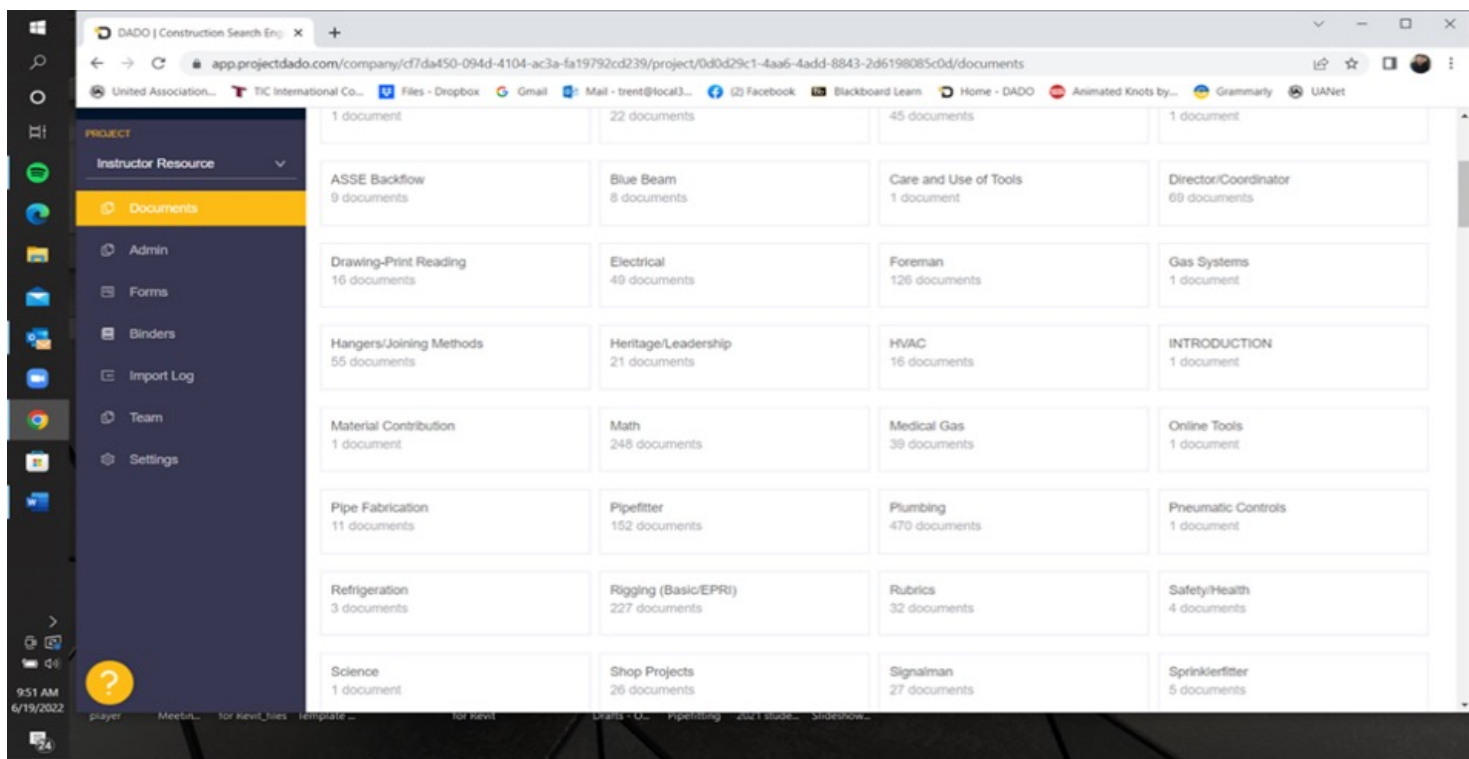
With a new year dawning, through hours of commitment and sacrifice by other UA Instructors like yourselves, we are excited to report that a portal has been developed. This new material portal is called the UA Instructor Resource in DADO.

DADO is a cloud-based software that some of you dealing with construction documentation might already be familiar with. Within this program, we have built an Instructor Resource project for sharing, collaborating, and borrowing instructional material put together by other directors, coordinators, and instructors.

So, you may be asking yourself at this point, what is DADO? For our application purposes, we use it as a sea container for all our homegrown instructional materials. You can come and go as you please, and in addition, it has a high-horsepower search engine to find whatever you want across all our crafts.

Two remarkable things about this cloud-based software are that it was developed by a fellow UA instructor, Stephan Schnell, from Local 467, in San Mateo, California. Because of that, DADO has made it accessible at no cost to all UA directors, coordinators, and instructors. For anyone else, a one-year subscription to DADO is about \$5,000.

To utilize DADO's current 5,600-plus document library to its full potential, type your search query into the search bar in either the main document's page or the subject matter tab for material you are looking for. For example, if you are looking for tests, type in tests, or worksheets, type worksheets, PowerPoints type, you guessed it, PowerPoints. Another way to search for material is if you know the local's number that may have contributed the



material. Those are the numbers in parentheses at the end of the heading line (597). Or, if you have the time, you can scroll through all the available material.

I have been asked if DADO is replacing the UAOLR or Blackboard™, and I always say it is intended to be used as a supplement, not a replacement. With all three, you are only limited to your imagination in how you want to tailor your classroom and shop curriculum. For example, Local 8 has some excellent math material in DADO for your course, and Local 72 has a fantastic copper project in DADO for a shop project. Combine these two exercises with Chapter 5 of the Soldering and Brazing chapter in the UAOLR and you have eight hours of instructional meat and potatoes.

For the sharing portion of DADO, if you have any material that would help other directors, coordinators, or instructors, find the Material Contribution tab and email the Material Committee member who best fits your material. Depending on the size of the file, it can be sent as a PDF or synced through various cloud providers such as Google Drive, Dropbox, Box, Egnyte, Microsoft, and Procore.

To prevent recreating the problems we had with the old UA University, the DADO Material Committee will be the gatekeepers to the project. They are subject-matter experts from all four corners of this organization. They will be vetting all the materials and ensuring that we do not experience deficiencies with copy-right issues and third-party material infringements.

With this rich resource of time and material comes a great responsibility of membership. Material within this great resource shall be protected at all costs and guarded to stay within the hallowed walls of this organization. We are collaborating with the engineers of DADO to make it available on the OLR eventually, which will put the member authentication process into the hands of the UA. This will provide the Instructor Resource Project with an immeasurable level of security. But, until this is accomplished, the responsibility falls on all who use it.

With that, we ask that **YOU**, as members, also steward the material. If you know that any director, coordinator, or instructor who may have access to DADO is guilty of leaving their local or becoming delinquent in their dues, let a material committee member or myself know so that offenders may be removed to protect our content from the predatorial competition.

If you are interested in gaining access to this immense stockpile of UA intellectual property, send a message to [tmauk@uanet.org](mailto:tmauk@uanet.org) asking for an invite to DADO. You will receive an invite from DADO and be prompted to register with a temporary password. Once in, please read the INTRODUCTION tab first to get started, and then feel free to browse.

In conclusion, we would like to thank DADO again for letting the UA use its platform for free, and we encourage you to explore their product for use in the construction field, and remember to train like you fight and fight like you train.

Be safe, Brothers and Sisters. ■

## Construction Technology News

*Submitted by Kenneth Schneider, UA Training Specialist*

For several years, the construction industry has been flooded with technology to improve the efficiency of constructing buildings in which we live, work, and play. As increased technology proved successful, more technology followed—both good and bad. I like to refer to these technologies as rabbit holes. As we dive into each rabbit hole, we must decide how deep we go and when we jump out of one rabbit hole before we jump into the next. As you can imagine, the time spent can become quite draining, not only on your time but also on your mind! Because of that, in late 2020, it was decided to continue the Virtual Design and Construction (VDC) tour and combine it with a District Construction Technology meeting, where training directors and contractors would share information to improve technology adoption in training and construction. This initiative would also begin the search for creating a UA Construction Technology Committee (CTC) made up of one plumber, one pipefitter, and one sprinkler fitter from each district. The goal of this Committee is to assist in navigating through the abundance of technologies available and to help guide the training at ITP in the best direction to implement the chosen technologies.

The Committee was created on November 25, 2021, and in March 2022, we had our first UA CTC meeting in Austin, TX. At this meeting, the Committee pushed for iPad grants for training and curriculum for construction applications such as Autodesk Construction Cloud Build, Procore, Revizto, Bluebeam, and others. The Committee also put together vision, purpose, and mission statements, as shown below.

**VISION:** To be the leader in construction technology adoption

**MISSION:** To advance the adoption and implementation of construction technology for the piping industry through training, standardization, networking, and innovation

**PURPOSE:** Provide solutions for training through the exploration and evaluation of construction technology to meet the current and future needs of the United Association and its signatory contractors

I am constantly told that the UA is the leader in technology. The Committee's vision is to remain the leader, and this will take all of us to succeed!

For 2023, we offer each district a new course *3054 iPad Deployment for Construction Technology*. It will be your first opportunity to meet the UA CTC members from your district and discuss construction technology at the annual District Construction Technology meeting and get your local training center one step closer to acquiring iPads through the ITF grant program. The 3054 course is one of two required courses. The other is the 2095 *Advanced Plan Reading* course.

The classes will also be offered at ITP, but space is limited, and they will be first come, first serve.

In the meantime, I plan to put the following in the next two *UA Training News* to meet the UA CTC. This edition features fire protection leads. Thank you and be safe!

(CTC Meeting 2022.3)

### Meet the Construction Technology Committee Fire Protection Leads



**Jason Nicholls**

UA Local 550 – District 1  
Member since 2012  
Sprinkler Fitter  
JCI Inspections and Service

Jason Nicholls began his career with the UA in September 2012 as an apprentice for Local 550 in Boston, MA, and received journeyworker status in March 2017. After becoming an apprentice, Jason started learning the Trimble RTS and layout software. Seeing the potential for vast improvements in the construction industry using current technology, he was hooked. Jason came to the UA with over three decades of experience building and maintaining computers. Jason was asked to teach a Trimble RTS class in 2020 as a part-time instructor for the Local 550 Training Center in Weymouth, MA. After a few weeks of teaching, Jason saw nothing besides paper handouts for his apprentices to study during the months that school was not in session. He created a 24/7 class of test prep to study during the summer months for those apprentices who needed to refresh during months school was not in session. Jason was asked to be on the Technology Committee when it was formed by the UA. After several trips to learn Revit/AutoCAD, Jason started to build a curriculum to begin teaching it to apprentices and journeymen. Revit is now taught as an elective at the Local 550 Training Center twice a week, along with Trimble RTS for an additional two nights. Jason's responsibilities are building and teaching tech-based classes such as Revit, Trimble RTS (and other brands), maintaining, upgrading, and setting up computers and iPads at the train-

ing center, as well as handling licenses for Revit/AutoCAD and introducing new technology that will make construction more efficient for the training center.



**Eric Koglin**

UA Local 542 – District 2  
Member since 2006  
Sprinkler Fitter  
JCI Inspections and Service

Eric Koglin is a member of the ITF Construction Technology Committee, a sprinkler fitter by trade, and he represents District 2. He is currently a Fire Sprinkler Inspector for Johnson Controls. Before becoming a union brother for the United Association, Eric attended and graduated from Indiana University of Pennsylvania in 2005. He earned a bachelor's degree in arts with a major in graphic design. Eric started his career in the pipe trades industry when he became an apprentice with UA Sprinkler Fitters Local 542, Pittsburgh, PA, in 2006. He became a journeyworker in 2011 and, two years later, started instructing apprentices. Eric has been an instructor since 2013 and graduated from ITP in 2019. He teaches multiple subjects, from code classes to blueprint and drawing classes. More recently, Eric has started teaching Revit and mobile technology for his local union. He joined the CTC because he has always been intrigued by technology. He believes in tech so much that he is always looking for new ways of doing things. Eric Koglin understands the importance of the CTC and intends to help make it an excellent resource for our union brothers, sisters, and partners.



**Jeffrey Van Rhyn, Jr.**

UA Local 669 – District 3  
Member since 1999  
Sprinkler Fitter  
Technology and Codes Coordinator

Jeff joined the UA in 1999 and became an instructor for the JATC in 2012. He graduated from the UA Instructor Training Program and earned his associate in applied science degree from Washtenaw Community College in 2016. He is a member of the UA Construction Technology Committee (CTC), ASSE 15000 Committee, and several NFPA Committees, including NFPA 1, 13, 13R/13D, 14, 25, 101, and 5000, where he represents labor's interests in the code development process. Jeff is UA STAR certified and NICET III certified in water-based fire protection systems ITM. He is an AWWA backflow tester and licensed fire sprinkler fitter in Nevada and California. He is passionate about construction and how processes and technology change the industry. Through hard work and dedication, Jeff's goal is to assist all local unions of the UA in promoting creativity and innovation to advance their training in the pipe trades through technology.





### Brad Hopping

UA Local 417 – District 4  
Member since 1995  
Sprinkler Fitter  
Training Director

Brad Hopping is a proud member of Sprinkler Fitters Local 417, St. Paul/Minneapolis, MN. He began his career as a sprinkler fitter in 1995 and reached journeyworker status in 2000. Shortly after becoming a journeyworker, he started teaching for the JATC at night for the next 13 years. In 2015, Local 417 JATC decided it was time the training program had a full-time training director. Brad applied and was hired as the first full-time training director of Local 417. Brad is heavily involved with the training directors from all the MN Pipe trades and the Sprinkler Fitters Training Director's group. These relationships have helped him bring the training program to the next level of training, and it continues to grow. Brad started teaching for the ITF at ITP in 2018 and is also part of the CTC representing District 4. Brad is very passionate about training and staying up on the latest technologies in the construction industry and ensuring that the students have every tool needed to stay relevant in this changing construction environment.



### Roland Gutierrez

Local 709 – District 5  
Member since 2006  
Sprinkler Fitter  
J M Carden Fire Protection Foreman

Roland started his Building Trades career as an apprentice for Sprinkler Fitters UA Local 709, Los Angeles, CA, in September of 2006 and reached journeyworker status in 2011. His contractor introduced him to Robotic Total Station's Trimble in early 2014. Working in the field as a foreman and RTS operator for his contractor created the opportunity to be a part-time instructor, teaching RTS for Local 709. In August 2014, he accepted an instructor position at UA Local 709 JATC, instructing apprentice and journeymen training courses. After spending five years as an instructor, he was asked in October 2019 to become a UA-ITF instructor for Robotic Total Station. Roland's first RTS courses were via Zoom and proved challenging, but his ability to meet and overcome those challenges helped him become a successful instructor. Understanding the needs of his students and building relationships with manufacturers and vendors have enabled him to be successful in his instructor position. In 2022, Roland joined CTC. Roland continues to meet new challenges by introducing new technology to UA Local 709 and expanding the Robotic Total Station course to include all manufacturers, teaching Revit for Fire Sprinklers, and always looking for new technology to grow UA Local 709 and our industry.



### Nick Devine

Local 853 – District 6  
Member since 2003  
Sprinkler Fitter  
Assistant Training Director at UA Local 853  
Sprinkler and Fire Protection Trade Centre

Nick's journey to becoming a sprinkler fitter began at the computer. He worked for a fire protection contractor in its design department when he was offered an apprenticeship opportunity with Local 853. Moving from the office to the field was a humbling experience for Nick as he began his apprenticeship by working on the systems he had laid out and designed. He quickly realized how much he didn't know when sitting behind that computer. Now, Nick firmly believes that there is no better training than field experience for anyone working as a detailer or designer of piping systems and that no one is more qualified at installing these systems than the members of the UA. As a member of the UA-ITF Construction Technology Committee, Nick is proud to have the opportunity to work on developing and implementing the Mechanical Drafter pathway to get more highly skilled and well-trained UA members into these positions. ■

## High-Performance Infrastructure Workshop

*Submitted by Robert Vilches, UA Training Specialist*

It was a pleasure seeing everyone last month in Orlando. The week was full of a lot of information and, of course, laughter and making new and old connections. While there were many great breakout sessions, I would like to highlight the "High-Performance Infrastructure" workshop.

The infrastructure workshop highlighted Thermal Energy Networks (TENs). The world is electrifying its buildings, and TENs are an excellent fit for this agenda. What is a TEN? Simply put, it is a network of piping that connects buildings within a defined area so that they can share energy by using as much energy as possible before it is discharged into a thermal sink. Keynote speaker Jay Egg of Egg Geo highlighted some of the key projects around the country. We also discussed the legislation that is in play—both state and federal. In NY, state legislators have passed a bill allowing TENs to be sold as a utility. All the states in New England have a policy in place to reduce their carbon footprint, install heat pumps, and in some cases, ban natural gas. California has a policy in place that will do the same. Washington

also has a policy to ban natural gas and install heat pumps. Most of these policies have compliance deadlines of 2030 and 2050.

The federal government also has similar policies in place for its buildings. The General Services Administration (GSA) has released guidance for all federal buildings to cut greenhouse gas (GHG) emissions in half by 2030. This guidance will apply to all federally owned properties, including the Department of Defense (DOD). The Inflation Recovery Act (IRA) language included what will incentivize end-users for most of the “clean energy” work to use prevailing wages and registered apprenticeships. These requirements are directly tied to the tax incentives for these projects. For some of these projects, the tax incentive is as high as 50% if they use labor that is paid a prevailing wage and employs apprentices from a registered program.

Heat pumps will be the product of choice to meet the world’s carbon reduction goals. These products will be for comfort and domestic water-heating applications. Heat pumps are nothing new. These products are available in air-source and water-sourced versions. They had come a long way since the old days when they didn’t work in cold climates. Newer technology has made it possible for these products to be used in colder regions efficiently and reliably. In some extreme cases, we will need to install electric strips or gas furnaces as backup heat sources.

The air-source products are easy enough to install and will be the least expensive installed option for homeowners and commercial clients. The problem with installing too many air-source products is the strain it will put on the electric grid during peak demand. In some regions already plagued with grid issues, the grid will still experience high peak demand with air source HPs (heat pumps), which could cause brownouts or blackouts. So, what are we to do? A geothermal HP is the only other option for an all-electric heating and cooling product. These products operate the same as their air-source products, with the addition of a water loop that syncs to the earth. The biggest problem for consumers is the cost of installing these systems. They are also disruptive to the property because they need to have a ground loop installed, which is the source of the additional cost to install. Federal and state incentives are in place to make this more affordable.

Later this year, the ITF will record training videos on best practices for heat pumps and smart tools. We will focus on system commissioning, service, and repair. These videos will be made available to your local training programs on the OLR and the XOï platform. We are also working with a few SMEs and EGG GEO to create and build a mobile classroom for TENs. This trailer will be available for request to bring to tradeshow and training events. As the trailer nears completion, more information will be released.

For more information regarding heat pumps or TENs in your area, please contact ITF Training Specialist Robert Vilches at [rvilches@uanet.org](mailto:rvilches@uanet.org). ■

## Microlearning

*Submitted by Robert Vilches, UA Training Specialist*

During pipe trades, we ran a session titled “Meeting Apprentices Where They Are.” This workshop focused on the importance of including microlearning videos in your training program. The current generation of apprentices who enter our programs are accustomed to learning this way. We will see a higher retention rate if we adopt microlearning.

Microlearning is nothing new. If you look on YouTube, TikTok, or the like, you will find educational content in all forms. We have been using these platforms for several years to educate ourselves. Why do we need to include this in our training? The older generation didn’t need to learn this way, right? We would have welcomed it if we could view material in bite-size pieces 20 or even 100 years ago from a handheld device. The apprentices we are asking to come into our programs have been learning in small snippets since birth. This learning is normal for them. The whole “But this is how we have always done it” must go. If it doesn’t, we will fail to attract and retain the younger generations.

We have partnered with XOï to bring a platform to our training program that is being used by some of our largest signatory contractors. This service is offered free of charge to your JATC and would be beneficial to your HVAC and Plumbing Service programs. Information on XOï can be found on the OLR under the technology for the piping industry tab or by going to their website <https://xoi.io/>. To request an account, please contact Training Specialist Rob Vilches at [rvilches@uanet.org](mailto:rvilches@uanet.org). ■

## New Standards

*Submitted by Bruce Dantley, UA Training Specialist*

The UA Education and Training Department has worked diligently to amend and revise the Apprenticeship Standards. These new standards reaffirm the commitment to promoting and maintaining a safe and positive learning environment. In addition, the standards are to be inclusive for all participants, regardless of race, creed, color, or sexual and or gender identity. Local union training centers have agreed to maintain enforcement of these standards to ensure a highly trained workforce is developed. ■

## With Margin to Spare

Submitted by Richard Benkowski, ITF Consultant

For many years, the ITF has provided digital platforms for UA instructors to deploy curriculum to apprentices anywhere, any-time, on any device. Blackboard contains basic course shells for locals to download and customize core studies such as Related Science, Mathematics, Basic Electricity, etc. The content for Blackboard courses resides on the UA OLR (On Line Resources), which serves as a repository of UA manuals. Both digital elements enhance the delivery system used to build and enrich journey-workers for the piping industry. The pandemic was a direct hit to the apprentice training delivery system. Did apprentices still get their raises? YES. Did apprentices still become journeymen? YES. The core mission of every UA local training center was not interrupted. Before the pandemic, about 5,000 Blackboard courses were utilized by hundreds of users. Today, there are over 15,000 Blackboard offerings with in excess of 80,000 users. Within the UA training delivery structure existed a margin for success.

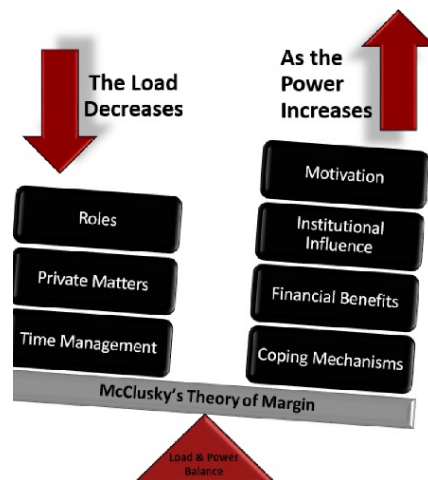
According to Merriam-Webster *margin* is defined as “a bare minimum below which or an extreme limit beyond which something becomes impossible or is no longer desirable.” Theorists agree that no single explanation exists to define adult learning, however, many models and profiles illuminate characteristics of how adult comprehension can be augmented. In 1963, Howard McClusky introduced the “Theory of Margin.” McClusky’s premise analyzes the emotion and stress of adult life through a mathematical equation:

$$MARGIN = \frac{LOAD}{POWER}$$

In the formula, load means “the self and social demands required by a person to maintain a minimal level of autonomy” (S. M. Grabowski, *Adult Learning, and Instructions*, 1970). By contrast, power refers to peoples’ resources, such as abilities, possessions, allies, etc. McClusky further proclaims, “When load continually matches or exceeds power and if both are fixed and or out of control, or irreversible, the situation becomes highly vulnerable and susceptible to breakdown” (Merriam Caffarefella, *Learning in Adulthood*, page 280). Through the McClusky lens appears a load which test the extent of available power, putting the success of the program at risk for overload. The mathematical influence in McClusky’s presumption clearly demonstrates that when load becomes larger than power, the result is greater than one, meaning, there are more things to accomplish than one person can handle properly.

The pandemic load never exceeded the power of the UA delivery system (Blackboard, OLR, etc.) already in place, so there was enough margin in the international training system AND the UA local training centers to manage the pandemic load.

Culturally, every UA member strives for the best opportunity for every other UA member. The brightest illustration resides in the UA classroom. Emerging technologies challenge the limits of what can be comprehended by the apprentices and journeypersons trusting you to manage training modules. When General President McManus was first elected in 2016, he declared that the UA “will be the safest and most productive” workforce on the jobsite. The UA classrooms embody that statement. From the classroom, UA members find comfort in knowing the margins of safety and productivity which translates to intrinsic value in every manhour.



Let us now move away from system analysis and ask ourselves to evaluate our margin in life. How many of you think that you have too much time to prepare your lesson plan? What if your jobsite works overtime or through the weekend? Teaching nationally and locally is often the second or third responsibility for many of you. How do you know when to say when?

Margin In Life Categories Correlated with Ratings of Load Over Power

Margin Categories			
A. In balance	B. Having Margin	C. In crisis	D. Barely Even
Ratio of Load Over Power			
A. <u>Low Load</u> Low Power	B. <u>Low Load</u> High Power	C. <u>High Load</u> Low Power	D. <u>High Load</u> High Power

Note. Ratings of load and power on a scale of 1-5 where 1-3 are low values, and 4 or 5 is a high value. (Main, 1979; Mikolaj & Boggs, 1991)

Adults are driven by both the need for self-preservation and the need for self-improvement. Adults with margin in life will have the motivation to pursue self-improvement endeavors. As stewards of the delivery system for “the safest and most productive” workforce in the construction industry, UA training directors manage the margin of their instructors and apprentices. Please remember to leave margin for your own undertakings! ■



## Profiles in Partnership

*Submitted by Richard Benkowski, ITF Consultant*

ITF Training is enriched by the efforts of stakeholders who participate by contributing at ITP. Occasionally, a true partner will be highlighted in this newsletter.

Today, we introduce you to: **Carl Hansen**



### Who is he professionally?

Carl Hansen is the Director of Product Development for ATP Learning Solutions, recognized for his knowledge and work in interactive media, distance learning, and digital video production. He continues to embrace new technologies to influence evolving educational and training landscapes positively.

Carl holds an M.Ed. degree in Instructional Design and Technology, a B.F.A. degree in Digital Media Design, accredited certifications in Digital Advertising and Interactive Media Design, and is an FAA Part 107 certificated sUAS Remote Pilot.

Carl recognizes the value of continued education and serves as an advisory board member for a major university and a community college in the Chicagoland area.

### How did Carl end up in front of a UA Instructor's classroom?

The UA and ATP share a great relationship in developing quality training materials, including the UA's online learning resources system or UAOLR. As a principal architect of the UAOLR, Carl has attended many instructor training events to introduce the capabilities and functionality of the UAOLR system and to provide support to UA instructors who use this resource to engage students and enhance training at their local training centers. Today, the UAOLR offers close to 32,000 UA instructors and students access to quality training resources.

### Why does Carl still support UA training?

Simply put, the UA is made up of many passionate people who genuinely believe in the strength of quality training. Since Carl's true passion is the development of the highest quality technical training materials and delivering that content intuitively and effectively, he and ATP will always support the UA's training mission with the hope of positively impacting generations of tradespeople. ■

## Another Piece of the Market Share Puzzle

*Submitted by Richard Benkowski, ITF Consultant*

### Introduction

The piping industry and every UA craft are impacted by language created for worker protection, public health, and construction resilience. Standards and guidelines are written by technical committees comprised of subject matter experts, engineers, owners, manufacturers, and users. Moreover, standards and guidelines provide a framework for managing risk. The ITF includes certifications/certificates in new course offerings to create a more attractive solution for all built environment stakeholders.

The International Standards Organization (ISO) reminds us that a standard is a document that provides requirements, specifications, guidelines, or characteristics that can be used consistently to ensure that materials, products, processes, and services are fit for their purpose. Standards allow technology to work seamlessly and establish trust so that markets can operate smoothly. Standards reflect the shared values, aspirations, and responsibilities we as a society project upon one another and our world. A guideline provides general counseling, additional advice, and support for policies, standards, or procedures.

### What to Know and When to Know It

Bid specifications for large projects will contain references to standards and guidelines. When a large project is emerging in your local, bid packages list applicable criteria as the minimum requirements for the bidders. Adoption of standards and guidelines allows enforcement of their language. It is essential to uncover the version and adopted year of the standard. For example, ASSE 12000-2021 is the latest version to dispatch a certified water quality mechanic. However, if the state, county, or project specs list ASSE 12000-2018, then the behavior on the jobsite will be according to that version of ASSE 12000. Very often, the changes in the wording are minimal. However, NFPA 99 in the mid-nineties added "certified brazer" and "certified installer" in reference to medical gas piping, which allowed the UA to monopolize about 90% of all medical gas work! We suggest you coordinate with your local signatory contractors and identify relevant standards and guidelines.

### Why is This Important?

Capturing or increasing market share boils down to two strategies—either you are the cheapest bid or offer the customer a benefit not in your competitor's skillset. The intrinsic value of the UA manhour illustrates the latter strategy. On bid day, signatory

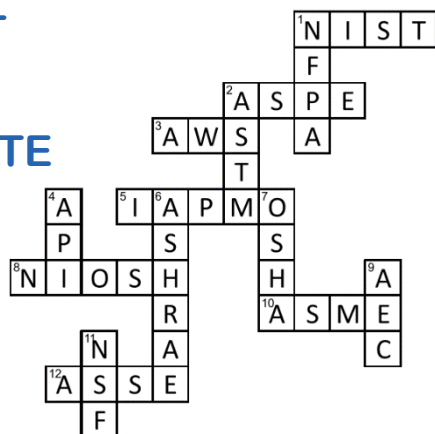
contractors can separate themselves from unorganized bidders through standards and guidelines learned in the UA local training centers.

### Next Steps

Future ITF Newsletters will contain a monthly feature called “Alphabet Soup Update.” The ITF staff will have the opportunity to highlight the impact of evolving standards and guidelines for every UA craft category. Furthermore, the information in the updates can promote market share growth when utilized by UA local officials such as business managers and organizers. Local MCAA Chapters may also use this content to enhance their project bids by showing the added benefit to building owners and facility managers.

Here is this month’s update:

### ALPHABET SOUP UPDATE



### Semiconductor Renaissance

On Jan. 21, 2022, Intel announced plans for an initial investment of more than \$20 billion to construct two new leading-edge chip factories in Ohio. As the largest single private-sector investment in Ohio history, the initial phase of the project is expected to create 3,000 Intel jobs and 7,000 construction jobs throughout the build.



At this time, to be dispatched for specific job calls at the Columbus Intel site, qualifications/certifications will be required along with the completion of the ITF semiconductor training courses.

The UA labor advantage is due to UA weld certifications that follow ASME guidelines. ASME welding certifications explicitly set qualifications that focus on the structural integrity of welded products. The ITF will offer several courses soon to capture the growing semiconductor market.

### Air Quality

ASSE 12000 is expanding to create a trifecta for a comprehensive approach to installing, commissioning, and maintaining all building systems. For many years, UA local training centers have prepared members for work in the healthcare industry with Infection Control Risk Assessment (ICRA) courses based on ASSE 12010/20. For water quality, ASSE 12060/61/62/63 demonstrated reliable and repeatable methods for the safety and resilience of all piped systems. On the horizon, ASSE 12050/51 will promote public health for all HVAC components. For building owners, ASSE 12000 addresses mold, water quality, and air quality—a wholesome trifecta for building occupants and workers.

Here is a sample of ASSE 12050, which will soon be released:

### 50-1.2 Purpose

The purpose of this standard is to provide a minimum criterion identified by industry consensus to ensure compliance with the referenced standards and codes in Standard 12001 and the requirements of Standard 12050 to develop and implement an air quality system risk management program. ASSE Standard 12050 covers employers or designated representatives of construction professionals, including—but not limited to—pipefitters and HVAC technicians.

### IAPMO Releases New Manual

The International Association of Plumbing and Mechanical Officials (IAPMO) and the American Water Works Association (AWWA) have published the AWWA/IAPMO Manual-2022: *Manual of Recommended Practices for the Safe Closure and Reopening of Building Water Systems*. On July 29, 2020, IAPMO and AWWA entered into a Cooperative Development Agreement to develop a manual of recommended practices to support providing safe and effective water efficiency and water quality provisions for the built environment.

This collaboration led to the development of risk management practices for potable and non-potable water supply systems during regular operation, when closing, during interruptions to normal operation, and when reopening building water systems in specific occupancy types. Section Four of the manual applies to potable water systems, non-potable water systems, and mechanical systems. Section Five applies to potable water systems. Section Six applies to non-potable water systems, and Section Seven applies to mechanical systems.

### Clues to the Crossword

#### Across

- 1 National Institute of Standards & Technology
- 2 American Society of Plumbing Engineers
- 3 American Welding Society
- 5 International Association of Plumbing & Mechanical Officials
- 8 National Institute of Safety & Health
- 10 American Society of Mechanical Engineers
- 12 American Society of Safety Engineers/American Society of Sanitary Engineers

#### Down

- 1 National Fire Protection Association
- 2 American Society for Testing & Materials
- 4 American Petroleum Institute
- 6 American Society of Heating Refrigeration Air Conditioning Engineers
- 7 Occupational Safety & Health Administration
- 9 Architecture Engineering Construction
- 11 National Science Foundation

### EDUCATION AND TRAINING DEPARTMENT OFFICE PROFESSIONALS

#### ADMINISTRATIVE ASSISTANT

Suzanne Ellis  
Cindy Williams

#### ADMINISTRATIVE ASSISTANT (VIP)

Nicole Jeup

#### CERTIFICATION DEPARTMENT

Carrie King, *Office Manager*  
Kristyn Ivey  
Angie Sterling

#### IPTJTC BOOKSTORE

Dianne Lash, *Office Manager*  
Peggy Jarrett  
Darlene Lee  
Jay Meadows  
David Parmenter

#### ITF COMPTROLLER

Matthew Robertson

#### ITF FINANCE DEPARTMENT

Helen Holmboe  
Tammie Parezo  
Kathy Walker  
Tracy Webster

#### INSTRUCTIONAL TECHNOLOGY COORDINATOR

Lauren Friedman

#### RECRUITMENT

Kiva Straser

#### REGISTRAR'S OFFICE

Cathy Merkel, *Registrar*  
Tyler Masengale  
Agatha Wolyn

Save the  
**DATES**

The following are  
important upcoming  
training events for 2023.

**Instructor Training Program (ITP)**  
August 12 - 18, 2023

**Trades Women Build Nations (TWBN)  
Conference**  
December 1 - 3, 2023

**Mark your Calendar!**