



TRAINING news

UA Education and Training Department

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Message from James Pavesic Director of Education and Training



I want to thank everyone for participating in our successful Zoom Pipe Trades Training Conference. We had 475 registered for the Conference,

and considering we quickly changed platforms, that is quite remarkable. We covered a lot of information, some of which I will go over with you in this message. We are very excited to be planning for an in-person Instructor Training Program (ITP) this year! As we know from the past several years, we will monitor the coronavirus trend and its variances. If conditions are not conducive to an in-person event due to a spike in coronavirus variances, we will change our plans and make that decision by the end of June. The health

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and safety of our members are always our top priority.

The new Training Directors Meeting took place March 1-3 and was held on the third floor of Headquarters in Annapolis, MD. Twenty-three new training directors attended, and everyone walked away from the training with a better understanding of their new roles.

Online registration for ITP will be opening around May 11th. Registration and the Vendor Expo will take place on

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.



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Saturday, August 13, and classes will begin on August 14-19. Graduation will take place on Thursday, August 18. We had 71 individuals graduate in 2021. We are going to invite anyone who graduated in 2021 to attend this year's graduation and walk with the class of 2022. The International Apprentice Contest will commence on Sunday, August 14, and go until Thursday, August 18, when we announce the winners at the graduation ceremony.

This year, we plan on having a new program, where each local sends one apprentice to ITP. We have planned a special program for those individuals to introduce them to the instructor's world. We ask that each local identify a fourth- or fifth-year apprentice who the local recognizes as a future instructor candidate. We are offering a \$5,000 grant to offset the cost of sending the apprentice to ITP. More information will be sent out soon.

We are also offering each local union four \$5,500 grants to assist with sending instructors to ITP. We suggest one grant goes toward a local sending a new student. One should be used for an instructor who graduated within the last two years but due to COVID-19, did not have an opportunity to walk in their graduation, and the remaining two grants should be used for instructors of the local's choice.

We plan to have our coveted Industry Day on Wednesday, August 17. Everyone attending ITP, regardless of whether they are a student, vendor, contractor, or visitor, must be vaccinated. Mask protocol will be decided at a later date. It will be whatever the state, county, and college are mandating at the time. Additionally, to receive any ITP grants, individuals must be fully vaccinated. Regional apprentice contests should be asking for the same protocol at contest facilities.

The Block Party, 5K, and Pub Crawl will take place on Monday, August 15. There will be complimentary Block Party T-shirts given out at registration to be worn at the Block Party to show UA Pride. Additionally, there will be a T-shirt and a cocktail glass given to those attendees who sign up for the 5K and Pub Crawl.

I want to introduce two new members to our team—Bob Derby, out of Local 174 in Western Michigan, will be taking over Phil Martin's duties. He will be working closely with Randy Gandy. We also have a new Safety, Health, and Environmental Administrator, Jen Massey. Jen is a 22-year member of Local 290 in Portland, OR, and has developed and taught safety classes for Local 290 over many years. Welcome, Bob and Jen!

We have been moving forward with the interviewing and apprentice selection process, and it is now in its pilot program with 10 local unions. I would say that 90 to 95 percent of our apprentice interviewers and committees have never had any formal interviewer/selection training. We want to make sure that everyone has an equal chance to become part of our organization, and that we are well-represented in the classification of underrepresented workers. Once you complete this training, you will be well-versed in helping grow our organization in a way that represents our communities. See Ray Boyd's article in this newsletter for more information.

We are getting close to finishing the Apprenticeship Standards. We are preparing them to send to the Department of Labor. Once the Department of Labor has approved them, we will have webinars outlining the changes to the Standards.

Thank you, all, for your continued hard work and dedication to the UA and the training of our members. ■

ITF Apprentice Selection Process and Structured Interviewer Training Program

Submitted by Raymond Boyd, Assistant Director of Education and Training

The ITF partnered with APTMetrics more than two years ago to develop an Apprentice Selection Process that we could all be proud of. With the hard work of the men and women of the United Association, I believe we have achieved our goal. Our project objectives were:

1. Identify and select a higher quality of apprenticeship candidates
2. Improve women/minority representation
3. Assess candidates fairly and consistently
4. Allow for flexibility in the approach for individual JATCs

One of the first things we set out to do at the ITF was to find a partner who was highly regarded in the field of employee selection. That Partner is APTMetrics, one of the country's leading human resources consulting organizations. This journey has allowed us to develop project steps that have gotten us to where we are today.

1. Discovery: Gather insights about the current selection processes and apprentice program.
2. Job Analysis: Identify skills and abilities needed for the role, and gather input from expanded groups from around the country.
3. Selection Procedures: Define minimum eligibility criteria. Develop test content and structured interview guidelines for validation.
4. Validation: Formally document the job relatedness and legal defensibility of the selection procedures.
5. Implementation: Pilot selection process for JATC use. Monitor ongoing performance and roll out the program more broadly.

HERE WE ARE—We started the ITF Apprentice Selection Pilot Program on March 22, 2022, with a kick-off meeting that had 42 participants, consisting of business managers, contractors, training directors/coordinators, among other staff. We are extremely excited to have 10 UA locals participating in the ITF pilot program. This will allow us to gather data from each local to assess exactly how the selection process is working, and where we may need to make some adjustments.

The UA locals participating in the pilot program are:

- Local 322, Winslow, NJ
- Local 333, Lansing, MI
- Local 520, Harrisburg, PA
- Local 602, Washington, D.C.
- Local 286, Austin, TX
- Local 32, Renton, WA
- Local 142, San Antonio, TX
- Local 16, Omaha, NE
- Local 81, Syracuse, NY
- Local 486, Baltimore, MD

Some of the locals will only be participating in the Structured Interviewer Training, while other locals will be going through the entire selection process. This will allow our team to gain valuable insight. As we review the results and feedback from the Apprentice Selection Pilot Program, we will share everything that we have learned. We would hope that by sharing this information it will allow our local unions to feel comfortable with the selection process we have developed.

The New ITF Apprentice Selection Process incorporates:

- Step 1: Application
- Step 2: Realistic job preview

- Step 3: Online pre-employment assessment
- Step 4: Basic math assessment
- Step 5: Interview

As the ITF gets ready for this year's Instructor Training Program in Ann Arbor, MI, we will be offering a **new class** on Structured Interviewer Training. We think this may be one of the most important areas that we need to focus on. It's time for us to be trained on how to INTERVIEW! ■

UA Tradeswomen Initiatives

Submitted by Laura Ceja, National Recruitment and Outreach Coordinator

In 2020, North America's Building Trades Unions (NABTU) Tradeswomen Committee, in partnership with NABTU Apprenticeship and Training Committee, introduced the Tradeswomen Heroes Award. This award is designed to recognize tradeswomen leaders, and by supporting these leaders it is our goal to increase participation, retention, and advancement of our outstanding tradeswomen members. If you know a tradeswoman who is a leader both on and off the jobsite or has demonstrated outstanding service to the community and their union, you may submit your nomination via your local business manager, through any member of the Tradeswomen Committee or Apprenticeship Committee, or through the Governing Board of Presidents or Council Leaders.

Business managers submitting a nomination will need a photo, tradeswoman bio, and at least two to three paragraphs describing the reason for the nomination. The winners of the award will be given a plaque, along with a \$500 gift card. Four tradeswomen heroes will be selected each month—two journeywomen and two apprentices. Nominations are especially needed for highly deserving apprentices. Please help us recognize the hardworking individuals who are deserving of this award!



For more information, go to bit.ly/tradeshero.

Jen Massey, UA ITF Safety Health and Environmental Administrator, was the winner of the March 2022 Tradeswomen Hero Award.

NABTU Tradeswomen Build Nations Conference, October 28-30, Las Vegas, NV

Save the date for the second largest convening of union members in North America—Tradeswomen Build Nations! If you have not attended this conference in the past, you will not want to miss this event of a lifetime. Be sure to share this conference invite with every UA tradeswoman member you know, and sponsor both journeymen and apprentices. Even though this is the Tradeswomen Conference, EVERYONE is welcome. We highly encourage our brothers at the UA to attend!

Join us on Friday, October 28th, for our Day of Service (more details to come). Also, join us that evening for our opening reception.

Saturday, October 29th, will commence our opening plenary with conference sessions, and the UA Tradeswomen's Caucus session in the afternoon. At the UA Caucus, we will hear from UA tradeswomen from across the country. Following the UA Caucus, women from all the building trades will participate in a Banner Parade (make sure you bring your union banners). Saturday evening's UA outing location will be announced at the UA Tradeswomen Caucus.

Sunday, October 30th, make sure you stay for our informative Sunday sessions and our closing ceremonies!



NABTU Winter Webinar Virtual Conference

Did you happen to miss our event on March 5th? Well not to worry, all three panels were recorded and are available here: <https://nabtu.org/twbn-winter-webinar>.

Registered participants may watch the opening keynote featuring representatives from the NABTU Tradeswomen Committee, NABTU's President Sean Mc Garvey, and Lean In Founder Sheryl Sandberg. This year's theme is "Women Empowerment in Union Construction." If you're curious to know how women are improving the lives of union members, increasing membership and retention, or just want to listen in on what women in the trades are discussing, watch the following panels available on demand:

Panel 1: Times They are A-Changin: Legislative and Federal Updates and the Benefits for Tradeswomen

Panel 2: A Culture of Care Series: Lean in Circles for Tradeswomen – Mentoring and Connecting Over Shared Experiences

Panel 3: Retention and Recruitment: Strategies for Tradeswomen to Advance in the Trades

Please register your email address at <https://nabtu.org/twbn> so you don't miss out on upcoming events and stay tuned for a future online event to be held in July.



Any questions or comments about any of the initiatives outlined in this article, please contact Laura Ceja at lceja@uanet.org.

UA VIP Instructors Gather for VIP Bootcamp

Submitted by Micheal Hazard, UA Training Specialist

For the first time ever, VIP instructors from across the country gathered in San Diego to participate in a three-day bootcamp. The bootcamp was designed to allow instructors to collaborate on several important initiatives. It also allowed instructors to get to know one another and created a forum to share ideas, focused on enhancing the VIP program.

The bootcamp kicked off with opening remarks from UA Director of Education and Training James Pavesic. Director Pavesic thanked the instructors for their participation and dedication to the VIP program. ITF Instructional Technology Coordinator Lauren Friedman provided VIP instructors with instruction related to Blackboard™, OLR, document control access, and the augmented reality app. Camp Lejeune VIP welding instructor Greg Abrams joined Lauren in the discussion regarding Blackboard to elaborate on VIP program-specific courses and enrollment procedures. In an effort to continue VIP training throughout the pandemic, instructors have been forced to implement virtual training opportunities without which the program was in danger of coming to a halt. This workshop brought technology to the forefront, and allowed VIP instructors to share their best practices and lessons learned while teaching in this virtual format.

We also had the honor of being joined by Major General (R) Matthew P. Caulfield. MG Caulfield shared a historical account of the VIP program from its launch in 2008 to the program we have today. MG Caulfield addressed the obstacles the VIP program had to overcome during the past decade, and highlighted the significant role the UA played in making it legal to train active-duty service members, prior to them leaving the military for a post-service job in the civilian sector. MG Caulfield noted that the American people owe a great deal of gratitude to the UA, not only for establishing the VIP program, but for changing the lives of military service members who were and are transitioning into the civilian workforce. MG Caulfield has dedicated his life to serving others and ensuring military service members experience a seamless transition from the military.

ITF Training Specialists Rob Vilches and Bob Derby provided presentations, via Zoom, regarding updates in the welding and HVACR trades. Rob and Bob highlighted current projects they are working on, as well as future changes coming to the

industry. Both presentations concluded with VIP instructors engaged in many industry-related discussions.

Marilyn Donham and Tony Esposito from WCC, along with Agatha Wolyn, ITF Curriculum Coordinator, provided an in-depth presentation, regarding curriculum development including building a syllabus, and creating lesson plans and assessments for each VIP program trade. The in-person training was very beneficial, as this was the first time the VIP instructors have been able to meet face-to-face as a group. Breakout groups by trade gave the instructors an opportunity to collaborate on day-to-day plans and various training techniques that will improve standardization across VIP programs nationwide. The VIP curriculum development workshop led to a signed Articulation Agreement between WCC and the VIP program. Ultimately, VIP graduates will now be awarded 16 college credits upon completion of the 18-week training program. This is a huge accomplishment that could not have happened without the instructors working together under the professional guidance of WCC Technical Programs Director Tony Esposito and WCC Dean of Skilled Trades Marilyn Donham.

Day Two was dedicated to the VIP Member Assistance Program (VIP MAP). While peer support has long existed in first responder communities, especially after critical incidents, peers' roles in construction mental health promotion and suicide prevention have been more recent. Over the last year, the United Association - Veterans in Piping (UA VIP) program addressed this bold, new health and safety strategy by partnering with Dr. Sally Spencer-Thomas and Eduardo Vega to develop an innovative **Member Assistance Program (MAP)**.

The goal of VIP MAP is to create a help giving, help seeking working environment, where people feel comfortable asking for help. People who have lived through depression, addiction, and suicidal despair have said over and over that peers played an incredibly influential role in, not only bringing them back from the brink, but giving them new reasons for living and hope. Peers are equals—they have no agenda or power over others. Many also have shared meaningful experiences. Their compassion, ability to listen, and skills in being bridges to resources can save lives.

The UA VIP program has spent the last 12 months learning about mental health literacy and building confidence and competence in becoming effective peer allies. Each month, participants shared stories of success on how their emerging skills as peer supporters made a difference.



VIP MAP Peer Support Team. Pictured from front to back and left to right are: Edwardo Vega (Humannovations), Dr. Sally Spenser-Thomas (Working Minds), Nicole Jeup (ITF), David Ramirez (LU 230), Jerome Griego (LU 421), Joe Ballejo (LU 58), Greg Abrams (LU 421), Jeremy Rood (LU 26), Jason Culkin (LU 230), Dave Gibson (LU 32). Back row Michael Smith (LU 184), Jason Smith (LU 58) Curtis Amos (LU 669), Mike Hazard (ITF), and James Kinney (LU 110)

The eagerness and participation amongst the group during the first in-person VIP MAP training session was phenomenal! The bonds that were built and level of confidence that was achieved by learning in person and engaging face-to-face in role playing scenario added a new level to our experiences. The training focused on crisis response and concluded with a completion ceremony and certificate of achievement for completing the first year of training as peer supporters. “If you don’t buy in—it is never going to work. You have to believe in it—believe in peer support and believe that you can make a difference. You have to get rid of that motto that, ‘I’m too macho for that’—that is what is going to change the culture and make a difference,” said Fort Carson VIP Welding Instructor and VIP graduate Jose Ballejo. Ultimately, the goal of VIP MAP is to create a peer support program model that can be replicated at all UA locals across the country for anyone who is interested in implementing this training for their members.

If you or someone you know is experiencing a crisis, please call the National Suicide Prevention Lifeline at 1-800-273-8255 or the Veterans Crisis Hotline at 1-800-273-8500.

VIP bootcamp ended with a bang. The final day of training was the busiest of the week, which began with a virtual visit from our new UA Safety, Health, and Environmental Administrator Jennifer Massey. Jen provided the group with a safety and health update, as well as an overview of her goals in her new position. She also thanked the group for their work in the VIP program and the VIP MAP program. Ray Boyd, Assistance Director of Education and Training; Jamie Winter, APTMetrics; and Rebecca Richardson, O’Donoghue & O’Donoghue, provided an overview of the new apprentice selection process and highlighted several key changes that will be beneficial to the VIP interview process. VIP staff and instructors

are looking forward to revamping the VIP selection process, which is one of our goals to accomplish in 2022.

Laura Ziemianski, Assistant Communications Manager, BMA Media Group, provided a presentation regarding VIP recruitment opportunities, VIP website functionality, and VIP reporting requirements. VIP instructors provided feedback regarding the current needs of each VIP program location in an effort to enhance recruitment efforts at each military installation, as well as how to reach transitioning service members from neighboring installations. Ultimately, the VIP bootcamp was a huge success. Positive feedback was received from all attendees, and we are looking forward to the next time that we can all be in person as a team. ■

Creating a Safe Welding Environment

Submitted by Randall Gandy, UA Training Specialist

How can we create a safe long-lasting environment for the future of our members? Our personal safety begins and ends with us as individuals. Jobsites are full of unexpected occurrences and no two welding operations have the same needs, equipment, or processes, and welder skill sets vary, as do contractor safety protocol. Still, safety should always be a top priority. Taking the right precautions to protect welders can limit negative effects on production, as well as increase journey worker acceptance of safety regulations. When proper precautions are taken, welding can and should be considered a safe occupation, and welders have no cause to fear accident or injury. But when safety isn’t taken seriously in the workplace, the risk of a severe incident becomes a real concern.

Education is the key to ensuring a safe and productive working environment for everyone. It is our continuous goal to invest in thorough and up-to-date training for all our members to ensure that they understand the risks associated with welding and the equipment available to prevent accident and injury. The multifaceted safety measures you take do more than just establish and maintain compliance with regulatory guidelines. A safe work environment can save the contractor money by reducing liabilities. It can also help attract and retain skilled welders, which is extremely important consid-

ering the shortage of welders. In many cases, we can directly involve our contractors in an effort to create and sustain a safe welding environment. Such involvement is beneficial to both our apprentices and journey workers because it empowers the welders themselves to take a proactive role in keeping their working environment safe.

As our industry is rapidly changing, UA members are constantly being exposed to new equipment and technology, therefore, we work closely with our industry partners to stay abreast of these changes. After all, who better to understand the safety and potential dangers than the manufactures that have designed it. Welding safety requires constant vigilance to ensure that all equipment is maintained, operating correctly, and being used with best practice in mind. Before starting any welding operation, a complete inspection of all welding equipment should be undertaken as well as your surrounding area.

Tips To Consider

- Always think about what you are doing—look before you leap. You must understand a task before you can do it well.
- Safety is a must in the construction industry. Do not put yourself or others in jeopardy by an unsafe move.
- THINK AHEAD! Try to anticipate what the next move is and always have materials and tools ready. You can never be faulted for foresightedness.
- If you see someone who needs a hand, LEND IT! Don't have tunnel vision. Be aware of your surroundings at all times. ■

Submitting EPRI Exam Documentation

Submitted by Michael Galfano, UA Training Specialist

The UA has been affiliated with EPRI (Electrical Power Research Institute) since 2007. EPRI conducts research and development relating to the generation, delivery, and use of electricity. EPRI provides a third-party accreditation for UA members utilizing the Standard Task Evaluation (STE) program. STEs are evaluation instruments used to evaluate personnel on their ability to perform a given task with a standardized approach. STEs include task analysis, objectives, and written and per-

formance evaluations. The Industrial Rigging and Signaling, Instrumentation, and Valve Tech programs all utilize the STE format. As training centers prepare for upcoming certification courses, I want to review the requirements for submitting EPRI documentation to our certification department. As of late, we have been receiving submitted documents that are outdated and missing critical information. EPRI will only accept the most updated documents for their national registry. The certification department will send you an "Online Testing and Materials" email typically one week prior to your exam date which includes the most updated documentation and instructions for your online exams. Please make sure all your documentation is legible prior to submitting. If a document category is crossed out because of a mistake, the error must be initialed by the test administrator. All documentation must be filled out in pen. If an examinee fails an exam, this documentation must also be submitted. Please submit all required documents to the UA certification department via email at certifications@uanet.org. Locals are required to keep all submitted documents on file at their local training centers. Below are the required documents to be submitted.

1) Written Release Statement:

- Must be submitted to certification department
- Must have signature of examinee
- Must be kept on file at local training center

2) Performance Exam:

- Must be submitted to certification department
- Must have signature of examinee (page 3)
- Submit page 3 – Information Release Statement
- Must be kept on file at local training center

3) Exam Feedback:

- Only required to submit if there is a challenged question
- Please be specific on question being challenged

4) Note: Exam Resource Sheet:

- Must be printed for examinee prior to written exam
- Must be collected before examinee leaves room
- Must be discarded at conclusion of written exam

UA Crane Signal Person Certification:

The November 29, 2021, implementation of the UA Crane Signal Person Certification was the second and final step of the UA's transition away from NCCCO. Please review uanet.org under certifications/crane signal person tab for all updates and program information. How do we promote this new certification program? The implementation and success

will depend on each one of us. We have been associated with NCCCO since 2010. They have significant name recognition through aggressive marketing, but let's remember, they are a testing agency that doesn't provide training. Nobody trains their members like the UA, and we are the industry leaders. So, how do we become recognized? The answer is simple: training, testing, and maintaining the integrity of this program. I would encourage each of you to become ambassadors and promote this new program by attending some of your local's training and testing sessions, take the exams yourself, and observe your exam administrators conducting training sessions and administering evaluations in a consistent, neutral, and unbiased manner. Be able to speak on behalf of this new certification. Invite your contractors and end-users to your training center to explain your training program and testing requirements. We have some hard work and challenges ahead of us. By working together, we can overcome any challenges moving forward.

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

The Impact of High-Performance Infrastructure

Submitted by Richard Benkowski, UA Department of Education Consultant

Do Your Everyday Work Every Day

Many of the industry experts will define infrastructure as, "The complex, interdependent system that supports our way of life." For more than a generation, sustainable technology initiatives have promoted energy efficiency and water conservation for all building systems. This momentum pushed the original equipment manufacturers (OEMs) to max-tech. In other words, every pump, fan, and compressor that moves water, air, and refrigerant through building systems has been optimized. Heat is transferred and directed through variable flow strategies for the most efficient operation of the building. Recent evolution of financial incentives has pushed the ideology beyond the building envelope.

What will the next challenge be?

Today's market calls for signatory contractors to continue to bid and win the everyday work of UA members, and for UA welders and service techs to install and service the latest technology in piping systems. Additionally, the UA locals must continue to teach the science of heat transfer every day.

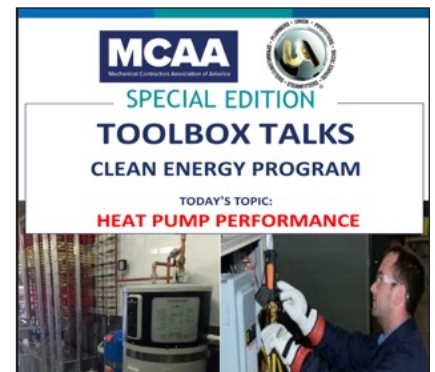
The irreducible elements for growing the UA brand are already available for implementation to increase consumer confidence by setting the standards for all piping industry practices.

Infrastructure Opportunity: CLEAN ENERGY

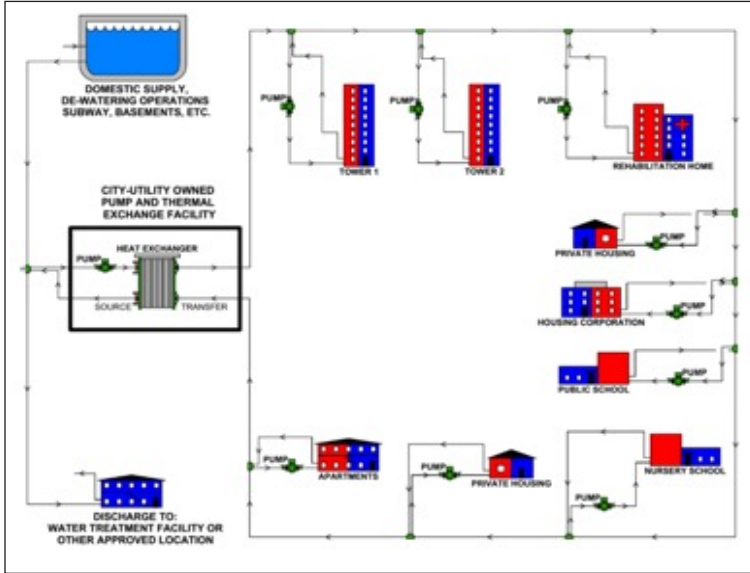
Decarbonization and electrification refer to the reduction or elimination of carbon dioxide from energy sources. According to the World Economic Forum, full decarbonization of our energy systems is the only solution to climate stabilization. In practice, getting to zero net emissions requires switching to clean energy sources and shifting from fossil fuels to electricity. Incentive programs reward the utilization of heat pumps for domestic water heating and comfort cooling and heating.

A heat pump water heater works like a refrigerator in reverse. In a domestic water heater, it uses technology to capture heat from the surrounding air and transfers it to stored water inside the tank. Because heat pump water heaters are moving heat, versus generating heat, they are able to operate more efficiently. Depending on hot water usage and utility rates, a heat pump water heater can save consumers an average of \$300 in energy each year, when compared to a standard electric water heater. Large scale heat pump water heating systems are currently being designed and installed in commercial properties across the U.S. This work is available every day.

Industry stakeholders and UA partners are supporting the effort to own this market. For example, the MCAA has published a Tool Box Talk for increased awareness of the topic. The ESCO group is working in UA classrooms to provide a Blackboard™ site for training. The ITF has launched heat pump performance training and inserted the lesson plan into the existing GPRO Plumbing and GPRO Mechanical courses. Training modules for the hands-on lab experience will be present at ITP next August.



Infrastructure Opportunity: THERMAL ENERGY NETWORKS



What do data centers and city-wide central plants have in common? They are scaling up the efforts to electrify plumbing and mechanical systems. Solar and wind may get the headline, but thermal energy networks provide a long list of benefits that simply are not available in standard chiller plants or direct-expansion systems. Geothermal HVAC systems eliminate the need for cooling towers, outside condensers, and most other equipment that can clutter rooftops or need to be placed outside the building. This work is being designed and bid by UA signatory contractors every day.

Orbital welders are in demand for the technology sector building new facilities around the country. Pipefitters will be dispatched to retrofit projects on college campuses.

Funding has been approved to utilize the piping grid at Cornell University to optimize heat transfer on campus.



This work is no stranger to a UA member trained with UA skillsets. Does this look familiar?

Infrastructure Opportunity: HYDROGEN

On November 19, 2021, *The Hill* published an article by UA General President Mark McManus. The message was very clear:

“Hydrogen produced from renewable energy can be blended with natural gas for use in our nation’s existing pipeline network. This already-existing infrastructure means hydrogen can travel from production centers to end-users, reducing carbon intensity and emissions along the way. Even better, existing technologies allow hydrogen to be sourced, produced, and used domestically in all 50 states.”

The ITF is also working with UA Director of Plumbing Tom Bigley to secure hydrogen burning boilers and water heaters. This will allow early service curriculum and an opportunity to create appropriate training for us to capture this work. This will be every day work for all UA members very soon!

What are the next steps?

Connect with ITF Training Specialist Robert Vilches to ensure that your local is ready to dispatch a trained UA workforce.

Organize a local tripartite response to offer to a governor, a mayor, or city council to create an immediate opportunity for increased manhours through the application of proven strategies for high performance infrastructure by traditional project delivery methods. ■

High Purity Pipefitting and Orbital Welding

Submitted by Robert Derby, UA Training Specialist

The UA Education and Training Department has worked diligently to restructure the existing orbital training programs to prepare UA members to perform on highly technical jobsites. This includes the most current information pertaining to equipment and techniques.

With an influx of upcoming orbital tube welding work that is being announced around the country, there has been an increased interest in orbital training. The interest is for both training members to perform orbital tube welding and educating instructors to be able to train their members locally.

Orbital welding is utilized in industries such as food and drug, chemical, and semiconductor. Requirements and expectations can be overwhelming when they are first introduced. Orbital welding operators, as they are technically referred to, are highly trained to understand the functionality of complex computer operated automatic welding machines. Unlike manual welding that is primarily skill based, automatic (orbital) welding requires a thorough understanding of the entire process. From fit-up to completion, each weld must be meticulously planned out and executed. Weld joints are typically fit-up to within .005". Extra care is taken to avoid contamination by FME (foreign material exclusion) during storage, handling, and assembly of materials. Specialized techniques are performed during the preparation process, such as severing and facing tube ends under purge to maintain positive pressure to help prevent particulate from entering the tube/pipe and fittings as they are being fabricated. Orbital tube welding is a relatively small portion of the work in comparison to the ancillary tasks required for high purity systems being fabricated and installed. There are expectations that differ from most of the venues that we are accustomed to working in. High purity venues require workers to undergo a culture change regarding typical work habits. If not properly prepared, workers can experience a "culture shock" when they are introduced to high purity work. Actions taken and skills that have been successfully used in other venues can suddenly be considered unacceptable in high purity work. It is up to all of us in the UA to embrace the differences. We must continue to educate ourselves of the requirements and expectations of our valued customers. As piping professionals leading the industry, we have an opportunity to set high standards that will validate our commitment to our craft and our customers. As our culture evolves, we can experience a sense of value that will fuel our drive for excellence. Each task we perform successfully on a jobsite is a contribution to our customers' success.

We have an obligation to the future of our industry, and we must take advantage of the opportunity to grow in the technical aspect of our trade. As we enter a time of learning new skills with a willingness to embrace change and an open mind, we will continue to lead the piping industry as technology continues to improve the materials and methods we use.

As our industry continues to get more technologically advanced, the equipment we use is evolving too. The UA Education and Training Department is working closely with all parties involved, including some customers and vendors directly, to ensure that we are training to the expectations of the jobsites that we will have the opportunity to work. Intentional decisions are being made to update our existing training and create new courses to prepare for the high purity work ahead of us.

More information will be forthcoming regarding course availability. ■

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