

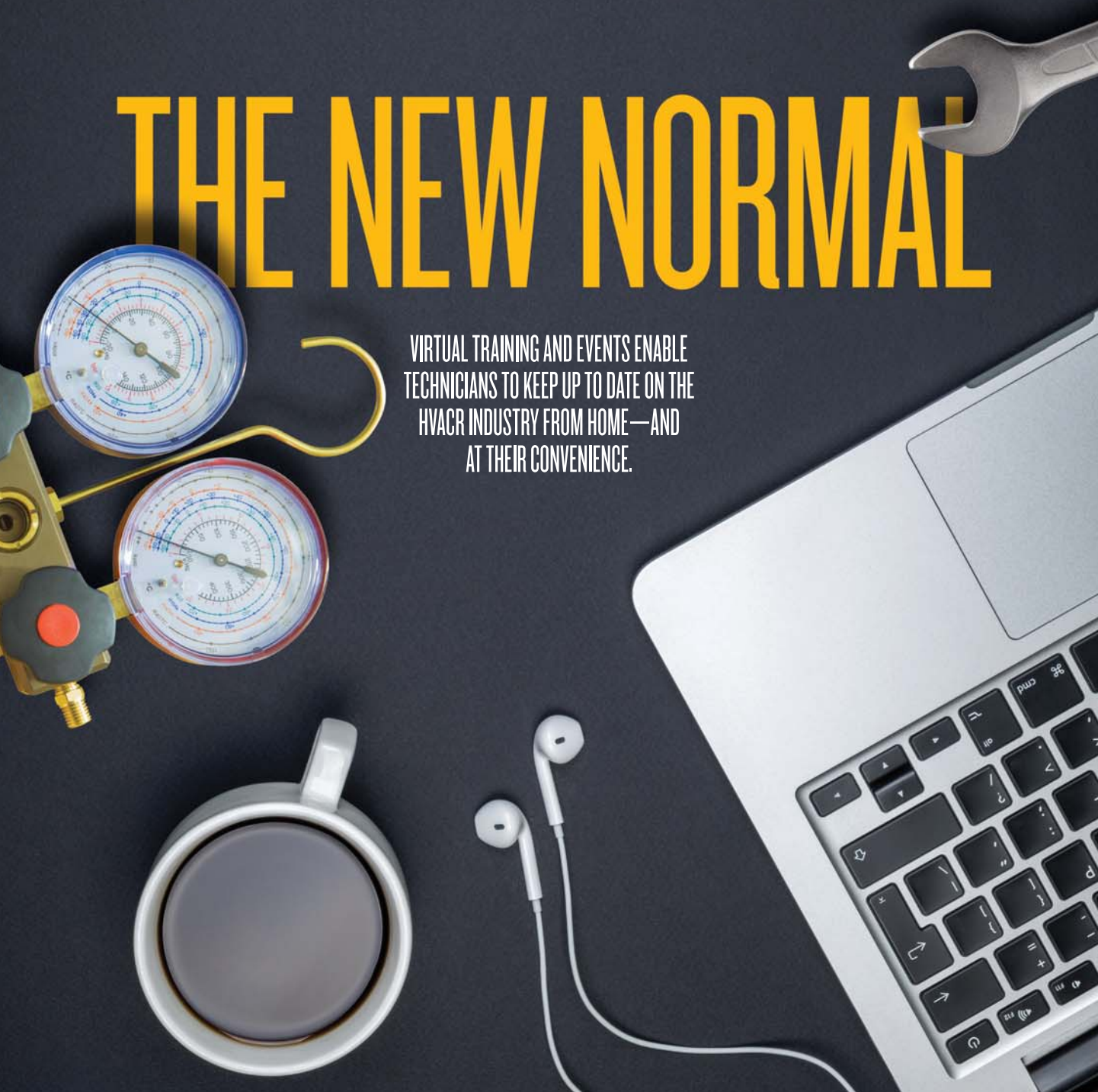
TECHNICIAN CERTIFICATION FOR THE HVACR INDUSTRY | NOV. 2020

NATE

M A G A Z I N E

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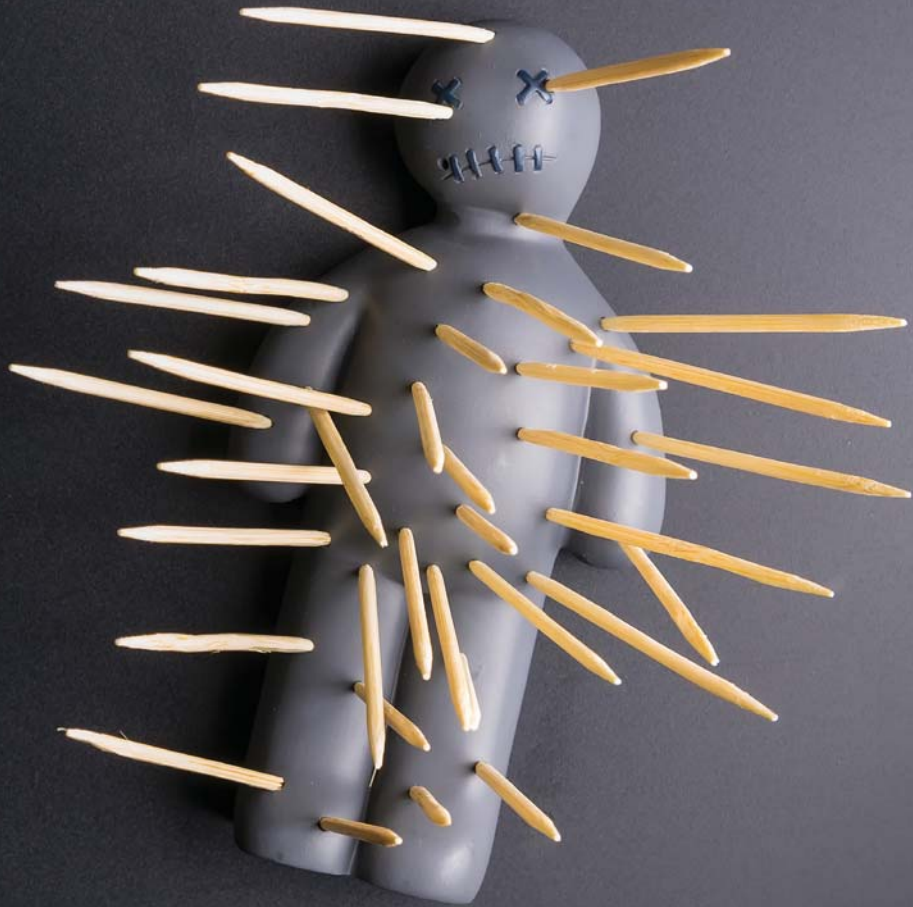
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Helping to Keep the HVACR Community Strong

Twice a year, the NATE Board of Trustees meets to discuss the state of the industry, the importance of technician training to workforce development, and how NATE's work can make the greatest impact. Our Board held its most recent meeting during the first week of October, and I am excited about the great conversations that came out of the meeting. Over the past few years, we have focused on creating services that not only prioritize the training and recognition of technicians but also make our organization more accessible. I believe our recent offerings provide the tools technicians need to succeed in our industry, and NATE plans to continue this work during the coming year.

This July, NATE introduced the Certified HVAC Professional Exam (CHP-5), an alternative certification pathway for technicians. NATE's goal with the CHP-5 was to create a full development certification path that mirrors the on-the-job training many technicians receive. I am proud of our first technicians to complete the CHP-5 and earn their NATE Certification, and you can find out more about their experiences in this issue.

Many of these technicians used our new remote Live Online Proctoring service. Live Online Proctoring gives technicians the option to take their NATE exams online from home. While in-person exams will remain a staple of NATE's offerings, live online exams are an example of our overarching goal to support technicians in ways that best accommodate their professional goals and training preferences.

NATE initiatives are always rooted in feedback from our HVACR community. For example, NATE developed the Online Training Portal as a result of a survey conducted in the fall of 2019 that showed most contractors hire technicians with less than two years of experience and have trouble finding quality training to help them develop their job skills. Most contractors in the survey expressed a desire for an online training resource that directly linked to the skills and job knowledge covered by the NATE exams.

Based on this feedback, NATE created an online training platform for technicians, accessible through their MyNATE account. The platform contains online training created by two of our training partners, InterPlay Learning and HVACRedu.net. With the portal, NATE has been able to modernize and expand our support for technicians as they work towards certification. Technicians can find training videos, virtual technical trainings, and 3D simulations that all directly correspond to the subjects covered by NATE exams.

I know NATE is not alone in its efforts to make an impact on the HVACR industry, and I am amazed at the innovative ways contractors have found to reach customers despite shifting operations due to the Coronavirus. As this year draws to a close, I hope you take the time to reflect upon your work achievements. The HVACR sector is resilient and robust because of the "can do" customer focus of the contractors, technicians, wholesalers, and manufacturers that make up our industry. Together, we will keep our community strong, no matter which direction 2021 leads us. ●



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You Asked, We Answered

QUESTIONS ASKED BY NATE-CERTIFIED TECHNICIANS, ANSWERED BY THE NATE TEAM AND SHARED WITH YOU.



I JUST TOOK MY FIRST CERTIFIED HVAC PROFESSIONAL (CHP-5) EXAM. HOW LONG DO I HAVE TO PREPARE FOR MY NEXT EXAM?

You can take up to six months to prepare and study between each CHP-5 exam. The exam subjects are HVAC Fundamentals, Electrical and Controls, Comfort and Airflow, Installation, and Service. NATE recommends taking the exams in sequence for the easiest progression; however, you can take the exams in any order you choose.

I OFFER TECHNICIAN TRAINING COURSES. HOW CAN I MAKE SURE MY COURSES COUNT TOWARDS CONTINUING EDUCATION HOURS FOR NATE RECERTIFICATION?

If your organization provides training courses in HVACR and would like to be NATE-recognized, you can complete an application form on our website to become

a Recognized Training Provider (RTP). As an RTP, you can register your courses to provide NATE credit (CEHs) for technicians attending. Additionally, your organization will be searchable on our website when technicians look for CEH trainings in your area.

I HAVE AN UPCOMING LIVE ONLINE PROCTORED NATE EXAM, AND I'M NO LONGER AVAILABLE AT THAT TIME. CAN I RESCHEDULE MY EXAM?

You can reschedule your Live Online Proctored exam up to 24 hours before your scheduled exam time. Please be aware that no-shows will not be refunded. Rescheduling must be done through Examity, our online exam platform. If you are having issues accessing Examity's website, please contact Scantron at 919-572-6880.

Word Search

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2. Recertify	U C E Z N S A N Y Q E E A J W
3. Service	T P I A N I I N T H F R X X I
4. Installation	N G C T R C R T V B R V E W Y
5. Airflow	I Q G F N N S I T S I I B J F
6. Virtual	W M L A X E I Y W V G C O D I
7. Refrigeration	H O L P B L R N D Y E E L Z T
8. Apprentice	W A Q G H H G P G Z R T I G R
9. Controls	B L A U T R I V P A A R S R E
10. Wiring	E E N O I T A L L A T S N I C
11. Learning	C O N T R O L S P G I Z E J E
12. Balancing	W T N V A Q C T T J O H F R R
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NATE News

ONLINE TRAINING PORTAL

NATE has partnered with HVACRedu.net and Interplay Learning to provide technicians with quality training to help technicians develop their job skills. Technicians can find online courses, training videos, and virtual reality trainings. The courses can help them prepare for the Certified HVAC Professional (CHP-5) Certification and other NATE exams.

Technicians can access the NATE online training portal through their myNATE account. Through their account, users can track which courses they have completed and can see when they have completed courses that correspond to specific NATE certification exams. Sign up for a course through myNATE at castleworldwide.com/Connect/nate/Account/Login.

WELCOME TO NEW NATE BOARD MEMBERS

In October, NATE welcomed two new members to the NATE Board of Trustees, Dave Kyle II and Brad Snyder. Dave Kyle II is president and CEO of Trademasters, a heating, air conditioning, and plumbing contractor based in Lorton, Virginia. Brad Snyder is the senior vice president and president of Goodman Business at Goodman Global. Goodman Manufacturing Company manufactures residential air conditioning and heating equipment.

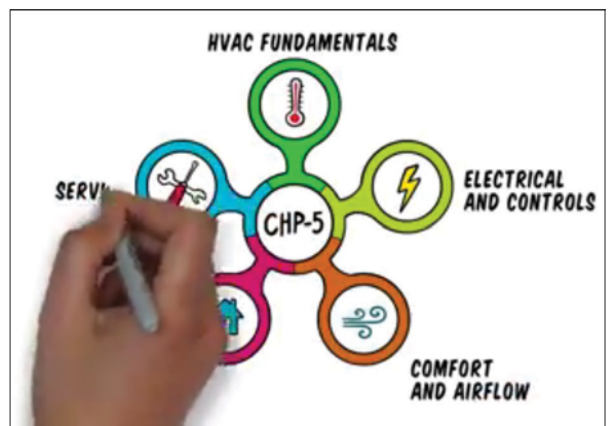
The NATE Board of Trustees is led by the Chairman of the Board, Kevin Dier. Dier is vice president of business development with Johnstone Supply, where he has worked for over the past 20 years. You can learn more about the NATE Executive Committee and Board of Trustees at www.natex.org/site/390/About-Us/Leadership.

NEW ONLINE VIDEO: THE CERTIFIED HVAC PROFESSIONAL (CHP-5)

NATE recently released a short video to help contractors and technicians learn more about the new Certified HVAC Professional (CHP-5) certification pathway. With the CHP-5, technicians can earn their NATE certification through a series of five 30-question exams, each on a different subject domain. Technicians can take the exams in any order they choose and can take up to six months between each exam to study and prepare.

NATE's goal with the CHP-5 is to mesh technician's on-the-job training with their test preparation to make preparing for the exams more straightforward. NATE is offering these new exams in both traditional in-person formats, as well as live online proctoring, to give technicians the flexibility to take the exam at a time and place that best fits their needs.

View the CHP-5 video online at www.facebook.com/watch/?v=346941556666570.



NATE HOLIDAY CLOSURES

The NATE office will close at noon on Wednesday, Nov. 25th, and reopen on Monday Nov. 30th, in observance of Thanksgiving.

The NATE office will close at noon on Thursday, Dec. 24, and reopen on Monday, Jan. 4th, 2021, for Christmas and New Year's. During the holiday closures, the NATE customer service line will not be open; any exam and store orders received will be processed after the office reopens.

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New CHP-5 Program Earns Rave Reviews



THE FIRST
TECHNICIANS TO
BECOME NATE-
CERTIFIED VIA
THE RECENTLY
INTRODUCED
CERTIFIED HVAC
PROFESSIONAL
AND LIVE ONLINE
PROCTORING
PROGRAMS
DISCUSS WHY
THEY CHOSE THESE
OPTIONS.

NATE certification is a goal of many in the HVACR industry, but the traditional 150-question Core and Specialty exams are not always the right fit for all interested parties. To help bridge the gap, NATE is expanding its options to achieve certification.

The new Certified HVAC Professional route, CHP-5, is designed to help technicians achieve certification in a way that more closely matches their on-the-job progression.

This new path to earning NATE certification, which was introduced earlier this year, consists of five 30-question exams instead of the traditional 50-question Core Exam and 100-question Specialty Exam. Each exam covers one of five different topics: HVAC Fundamentals, Electrical and Controls, Comfort and Airflow, Installation, and Service. Candidates can take up to six months between each exam to study and prepare.

The goal, according to NATE, is to help technicians more easily understand the certification process and group together content areas in ways that make preparing for the exams more straightforward.

The new exams are offered in the traditional in-person formats, as well as Live Online Proctoring (LOP), which offers additional flexibility in terms of when and where technicians are able to take the exams.

The new CHP-5 does not replace the Core and Specialty exam process; technicians that prefer to take the traditional path to certification can still do that.

The CHP-5 pathway has proven popular with technicians. Here we profile the first people to become certified via the CHP-5 exams and the new LOP—why they chose this option, how they expect certification will help their careers, and more.

FIRST IN LINE

The first person to pass all five tests and become certified via the CHP-5 process is Jose Arroyo, a project manager at J&S A/C and Heating Service, Garland, Texas. He's been with the company for four years,

"I went to school for science and engineering, so it was one of my main focuses to be in the mechanical field. I just didn't know what part of the spectrum I wanted to be in, the more experimental or the more technical," according to Arroyo. "So, I chose to jump into the technician side because I'm a hands-on learner. It wasn't until I took a course about a year ago to get my EPA 608 license that I took this HVACR certification more seriously."

Arroyo decided on NATE certification because the group is a recognized mentor for technicians.

"That's really what I was looking for—someone who could teach me the basics of all this technician work that we do," he says. "And the background of every technician should be NATE because it's really strong. For example, there are a lot of topics that you don't really get to see out in the field, but once you see it first and on paper, you recognize it out in the field. That helps a lot."

Arroyo decided that the traditional certification process of Core and Specialty would be too big of a time commitment and that the CHP-5 fit his preferences and lifestyle.

"I didn't want to take the test as a big chunk," he says. "I thought the CHP-5 was a good option to take it little by little. That worked better for me because I could study for the tests one per week and then take all the exams together."

Studying for each test a week at a time and then taking all the tests back to back helped Arroyo get a good grasp of the information. He explains, "I just went over and over and over the information. When the day came, it was like, 'Yeah, I remember everything.'"

He's hoping to encourage his co-workers to get NATE-certified, as well. "I'm really trying to see if any of my technicians or day laborers are interested in actually jumping to the next level and understanding what they're installing," he says. "That's probably going to be my route—to take people through NATE to get their certification. If they can pass NATE certification," he continues. "I have a pretty good feeling about where they'll end up because it's a very well-rounded course. I know they're going to do well in this business if they take that course."

Arroyo is getting involved with mechanical design; passing the CHP-5 tests has given him the confidence to elevate his career. "I'm more serious about doing mechanical design now, running prototypes, and doing research and development," he says. "I want to open that branch up for my company."

LEARNING EXPERIENCE

Joshua Elliott is HVACR training manager for Williams Comfort Air, Indianapolis; the company also has locations in Louisville, Kentucky, and Cincinnati,



"I THOUGHT THE CHP-5 WAS A GOOD OPTION TO TAKE IT LITTLE BY LITTLE. THAT WORKED BETTER FOR ME BECAUSE I COULD STUDY FOR THE TESTS ONE PER WEEK AND THEN TAKE ALL THE EXAMS TOGETHER."

—Jose Arroyo, project manager, J&S A/C and Heating Service, Garland, Texas

Ohio. He's responsible for managing the company's training, which involves teaching classes, keeping track of NATE certifications, and serving as a proctor for EPA exams. Elliott, who has passed all five of the CHP-5 exams, has been involved in the HVACR industry for 21 years and first became NATE certified in 2010. This process was, for him, more of a learning experience on behalf of the entire company rather than a personal goal. In fact, Elliott already has 10 of the traditional certifications to go along with his new CHP-5 certification.

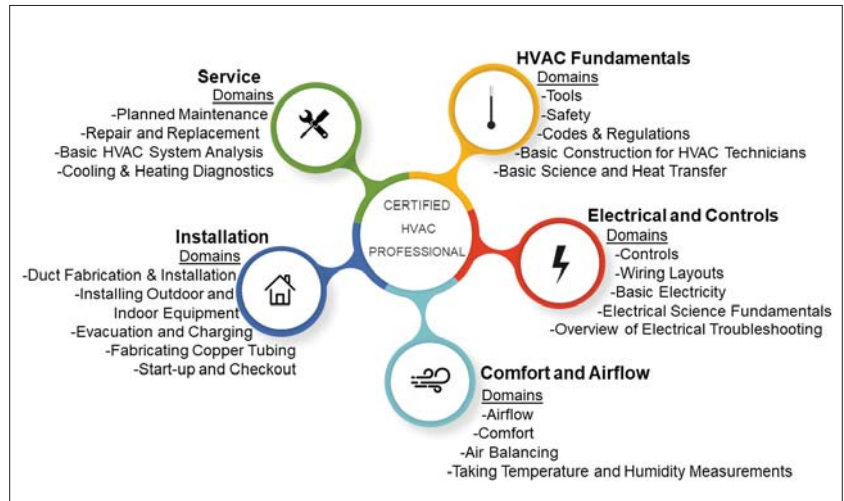
"When I saw this come out, I wanted to see what it was all about—and see

if it was something that I wanted to start training our guys on and getting them certified in this new way,” he says. “So, I went ahead and took all the tests to see what they were all about and also got certified along the way.”

Elliott really likes the new CHP-5 process because of the broad focus and the proof it offers that a technician has a well-rounded scope of knowledge.

“As part of the new process,” he explains, “you have to pass questions on all subjects. Installation service, heating, air conditioning, heat pumps, all are covered as well as good fundamental topics on HVACR. So, to have the CHP-5 certification says more about the technician than the traditional sort of certifications because it’s just much broader and covers a lot more.”

Elliott says he also was impressed by how organized the tests were. He notes, “It made a lot of sense when I was taking the tests; there was a lot of very relevant information. Everything is updated. NATE had questions that are very relevant to the equipment that technicians are seeing in the field today. It’s always changing, so constantly updating and improving your training and certifications are necessary.”

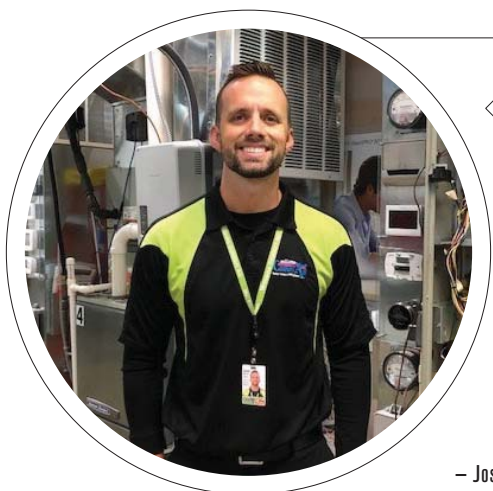


NATE’s innovative Certified HVAC Professional program consists of five 30-question exams. Each exam covers one of five different subject domains: HVAC fundamentals, electrical and controls, comfort and airflow, installation, and service.

In terms of LOP, Elliot is happy the option exists. He is his company’s proctor, so without the LOP he would have had to find somewhere else to take the five tests.

Elliott has already recommended the CHP-5 certification to others at Williams Comfort Air. “I’ve sent out emails,” he says, “and have been telling all my students about this new pathway and that really it’s the same amount of test questions. So, 150 questions to get your CHP-5 certification, whereas if you took the traditional pathway, the Core Exam has 50 questions and the Specialty exam 100 questions. CHP-5 is a better pathway for them; I haven’t made it mandatory, but that may be something I’ll do in the future.”

Elliott’s efforts with the CHP-5 are paying off—several employees have reached out to him and are preparing to start the process of certification. “Within the next month, we’ll be starting to train whoever’s interested and take them down that path.”



“YOU HAVE TO PASS QUESTIONS ON ALL SUBJECTS. INSTALLATION SERVICE, HEATING, AIR CONDITIONING, HEAT PUMPS, ALL ARE COVERED AS WELL AS GOOD FUNDAMENTAL TOPICS ON HVACR. SO, TO HAVE THE CHP-5 CERTIFICATION SAYS MORE ABOUT THE TECHNICIAN THAN THE TRADITIONAL SORT OF CERTIFICATIONS BECAUSE IT’S JUST MUCH BROADER AND COVERS A LOT MORE.”

– Joshua Elliott is HVACR training manager for Williams Comfort Air, Indianapolis

Certification, in general, is something Elliott recommends to employees all the time. “We’re big supporters of NATE, always have been,” he says. “If you’re going to get into HVACR, start right away with NATE and get as many certifications as you can along the way because it’s like being an Automotive Service Excellence (ASE) Certified mechanic. That’s a recognized certification that people look for, and it carries a lot of weight.”

NO LOOKING BACK

Jason Kiss, a service technician at Kappl Heating & Air Conditioning, Canoga Park, California, started in the HVACR industry helping out a friend and his dad, who owned a heating and air conditioning company. He continued working on HVACR maintenance crews while incarcerated, learning about an HVACR program at a nearby community college from one of his supervisors. He received an associate degree in applied science in HVACR and refrigeration and eventually moved to California.

Kiss has been with Kappl for nine months and has had NATE certification as a goal for a long time. He explains, “It’s important to have NATE certification here. If you can pass the test, that pretty much indicates that you have knowledge about the industry.”

Kiss became aware of the CHP-5 program while researching the Core test, realizing CHP-5 was being introduced within two weeks of when he was to take the standard test. “I just decided to see what it was about,” he says. “I passed my last CHP-5 test [in October].”

Kiss is happy that he chose the CHP-5 option because it fit into his schedule better. “It’s more convenient,” he says, “and it allows you to do it in your own time at your own speed. The questions themselves are still pretty tough, but there are not as many [on each test].”

His experience with the overall process was very positive, and he’s planning on taking some of NATE’s Specialty exams at some point.

“It’s a great program. It tests your knowledge, for sure,” he notes. “I’m a learner. If I don’t know something, then I’m going to figure it out. Some of the NATE questions are hard, but if you can pass the NATE test, then you know what you’re doing in this industry.”

“Coming out of a two-year program,” he continues, “I was pretty familiar with a lot of the questions, but you forget a lot of things, too. The testing was helpful. It says [you believe in] continuing education, and it shows employers that you have a sense of what you’re doing.”

When it comes time to switch jobs, if you are certified, “you’re going to get in the door before somebody that isn’t.”

Kiss says that he “absolutely” recommends NATE certification and the CHP-5 program to all HVACR technicians: “You’ve got nothing to lose.” ●

Elaine Yetzer Simon is a contributor to the *NATE Magazine*.



“IT’S MORE CONVENIENT...
AND ALLOWS YOU TO DO IT
IN YOUR OWN TIME AT YOUR
OWN SPEED.”

—Jason Kiss, service technician, Kappl Heating & Air Conditioning, Canoga Park, California

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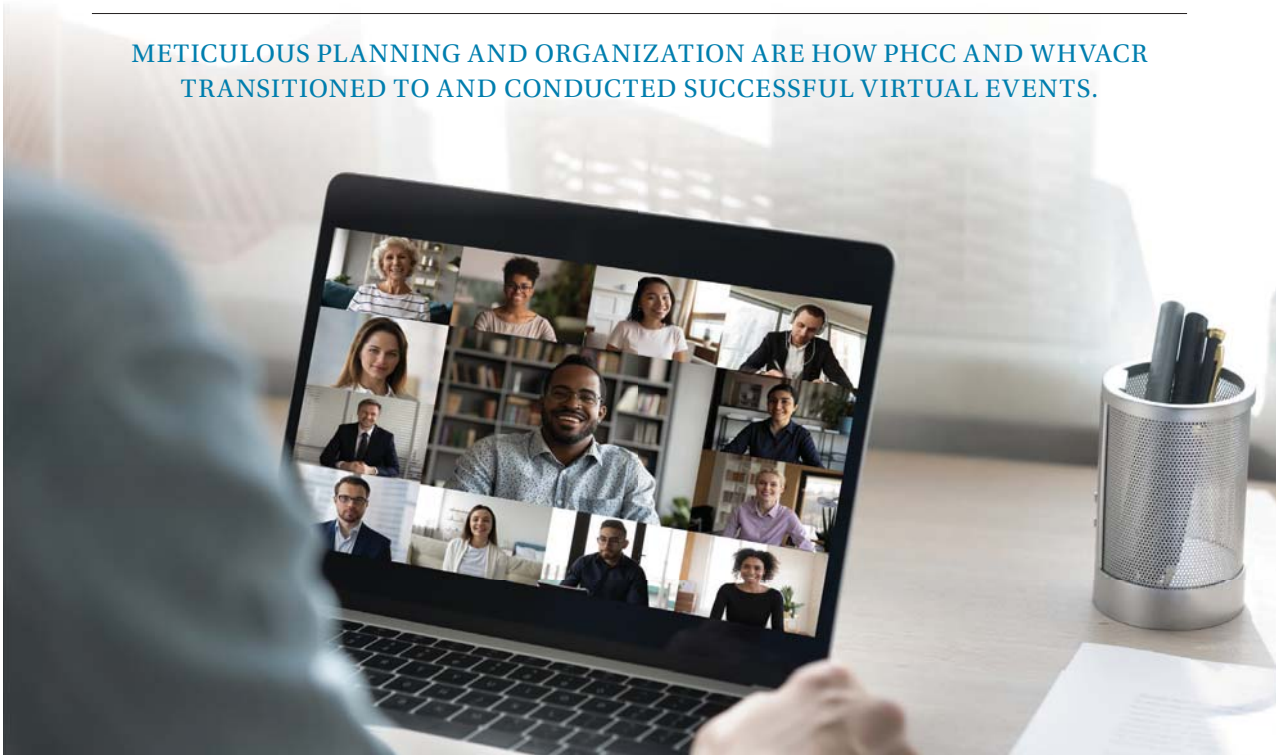


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One of the most rewarding experiences for attendees of industry conventions or meetings isn't the education sessions or technical training. It's the networking—socializing with peers and discussing mutual concerns and challenges. Maybe you need help motivating employees, or a colleague needs assistance with an exit strategy. The exchange of information and advice via networking events is, for many, worth the price of membership.

“Our members like to talk to each other,” notes Michael Copp, executive vice president of the Plumbing-Heat-Cooling Contractors-(PHCC) National Association. “They are people who prefer to get together and learn; they’re very social that way. They get the most value out of shaking hands and sitting down and talking about stuff, so it’s always going to be their preference.”

Colleen Keyworth, who coordinates Women in HVACR's (WHVACR) marketing and event planning, agrees: “I think we lose out on connections when everything goes virtual.”

But in 2020, virtual became the new norm. As the SARS-CoV-2 coronavirus hit our shores and positive cases began to rise, the thought of traveling lost its appeal. In March,



The interaction metrics for WHVACR's first virtual convention indicate that members were fully engaged during the event. (Photo: Women in HVACR)

many state and local governments enacted stay-at-home orders for all but the most essential workers—police, fire personnel, health workers, and home services technicians.

With the uncertainty of how and to whom the COVID-19 disease was spread, was it any wonder people didn't want to get on an airplane or spend time in a convention center? And if your organization is well on its way to planning a

large annual event, how do you adapt to a pandemic reality?

Weighing the pros and cons of in-person to virtual, based on the newest data from scientists and health experts, is a good starting point. But the true indicator of how successful either will be is what the members think.

“Around May, we sent out a survey to all our members and past attendees to identify who would be willing to come to a face-to-face meeting,” Copp says. “Less than half were interested in a face-to-face meeting. That’s when we decided we needed to either cancel the event or transform it into a virtual event.”

PHCC CONNECT 2020 was scheduled for the end of September in Dallas; the education committee was reviewing session submissions, and the keynote speakers and topics were selected. The PHCC board decided to go virtual on June 15.

For WHVACR, the stay-at-home orders came when Keyworth was to make a site visit to Chicago for the organization’s mid-September meeting. A contract had not been signed, so Keyworth still had some wiggle room.

“The other plan we had had was to move it to a warmer climate because different states had different policies,” she explains. “We even had a board member who lives near San Antonio do a site visit there. But ultimately, we did decide to go virtual.”

WHVACR members had mixed feedback about in-person vs. virtual; some were clamoring to go to Chicago, while others had financial or family concerns.

“Traveling wasn’t dead in most states, and frankly, flights this year were quite cheap,” Keyworth notes. “The bigger problem was that many people depend on their companies to sponsor them to come to our events. If companies are shut down, it’s an out-of-pocket expense. Also, many of our members are moms, and school required a lot more of their time and focus than it would in years past because it was just such a different world.”

Another factor Keyworth had to consider: social distancing.

“It’s not that we didn’t have places to hold the meeting; hotels are hungry for the business,” she says. “It’s the workarounds you need to meet to hold events—state and local regulations for social distancing, masks, and all the other stuff. It ends up being almost twice the cost for the fewest people. So, we’d need to rent a 500-person ballroom



Although they could not interact in person, Women in HVACR members still had their networking time. (Photo: Women in HVACR)

for 150 people, or make sure we’re outdoors all the time, depending upon the weather.”

Ultimately, the WHVACR board decided at the end of July to hold a virtual meeting instead.

COORDINATING THE TECH

For both organizations, deciding on the right technology to put on the best virtual program was the next step.

“It took us about a month to figure out which technology to use because we know many of our contractor members want something simple and easy to use,” Copp explains.

PHCC settled on CadmiumCD, a one-stop-shop event platform that hosted most of the event activities. Of the 23 sessions provided over two days, only nine were live. The remainder, plus the keynote speeches, were prerecorded on Zoom “so we would avoid any technical problems during those two days,” he notes.

Zoom acted as a plugin to the platform to facilitate meetings and broadcast the prerecorded material. And because everything was recorded, members can access PHCC CONNECT2020 until the 2021 convention in Kansas City.

WHVACR chose the Chime event portal through event management firm PSAV, which Keyworth has hired for several of the group’s live events.

“Most of our priorities were based around the fact that we were going to handle our own production,” she says. “We were going to use Zoom and we were very comfortable with Zoom. But the one thing we couldn’t provide was a hub—the place where everybody can get a login as our attendees navigate the conference, see our sponsors, see our speakers, click into join meetings, chat with each other, see a directory of all the other members who have attended, and be able to connect with them as well. The Chime portal provided that for us.”

VIRTUAL LOGISTICS

The next big task was logistics—who is introducing what from where, who’s running the chat room, who’s monitoring live sessions, who’s handling Q&A. Keep in mind, most staff and board members were working from home, so logistics took on a whole new meaning. Copp worked out of the PHCC office in Falls Church, Virginia, with four screens open to observe the different sessions and the virtual trade show, as well as respond to chat and text messages.

“I think the hardest part of my job and the events team’s job was laying out what everybody’s responsibilities were and when they were supposed to move,” Keyworth explains. “We had five different Zoom accounts we were rotating between. And we all had different transitions of when the big meeting started, when the breakout sessions started, who was starting that breakout session, who was monitoring it.”

Every WHVACR board and staff member had a reference point of what their responsibilities were each day, she adds: “We had a 40-page PDF document with a page for each member of our board. For instance, it would say something like, Angie Snow, Wednesday responsibilities, and it would list all her times for topics, introductions for anybody she was introducing that day—all her transitions and what her responsibilities were.”

Meticulous planning and organization are how both groups transitioned to and conducted successful virtual events where members could learn about their industry and converse...well, try to converse with industry colleagues when everyone’s not talking over each other.

PHCC had 430 attendees, of which 70 were contractors. Copp believes this reinforces the notion that most members prefer in-person events: “The virtual piece of this did not resonate as well as we would hope with the contractor audience.”

When I spoke to Copp, evaluations were still coming into the office, but succession planning, budgets, leadership, and any COVID-19-related sessions were immensely popular.

The WHVACR event had 250 virtual attendees, Keyworth notes: 208 stayed through day one, 180 on day two, and 189 on day three. The overall favorite was opening keynote speaker Kristen Brown, who talked about charged leadership. The sessions on marketing, technical skills and soft skills also resonated with members.

PHCC tech support was at the ready to smooth over any glitches in the CONNECT 2020 sessions. (Photo: PHCC-National Association)



Of the 22 sessions comprising PHCC’s 2020 virtual convention, only nine were live. (Photo: PHCC-National Association)

“All our surveys and our feedback came back strong,” she says. “Many people enjoyed our conference, said it was different than others they had attended in the past. Everybody appreciated the fact that they felt as if they were connecting with people.”

As to when we’re able to come together in large groups to renew old friendships and celebrate new opportunities, you’ll need a crystal ball to figure that out. Scientists still do not have a COVID-19 vaccine or viable treatments for massive groups of people.

Until then, trade groups such as PHCC and WHVACR will keep their options open, hope that we can contain the virus and relax social distancing rules—and come up with contingency plans if a 100 percent in-person event is not possible, such as a hybrid event.

“For anyone who asks me about getting back to normal next year, I say to them, ‘How do you define normal?’” Copp says. “Because I believe it will have a long-lasting effect on our meetings for likely a year or two. Contractors need to get comfortable with virtual opportunities for learning, networking, and sharing ideas and best practices because I don’t think it’s going away anytime soon.”

NATE agrees that trade groups would be wise to keep their meeting options open for 2021. Daisy Weill, NATE marketing manager, attended the WHVACR virtual conference and was impressed by how interactive it was. “They did a great job,” she says, “of encouraging participants to write in questions and comments during sessions and had prizes for participants that interacted the most on the conference platform. It brought a lot of energy to the virtual conference that I was not expecting.”

John Lanier, NATE’s COO, attended PHCC CONNECT2020. He explains that all NATE staff is working remotely and that staff travel has been put on hold through the beginning of 2021. “I appreciate that organizations like PHCC and WHVACR are providing alternative ways for the industry to stay connected,” he says. “PHCC CONNECT2020 served as a great opportunity to catch up on what’s happening in our industry at a time when our staff cannot meet in person.” ●

Kelly Faloan is a contributor to the *NATE Magazine*.

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Training for NATE Certification Tests Moves from In-Person to Virtual



NATE COLLABORATES WITH OUTSIDE GROUPS TO SPEED THE PIVOT TO ONLINE TRAINING.

NATE has initiated several programs to make earning NATE certifications and re-certifications more convenient for technicians. The programs, offered in response to the COVID-19 pandemic and technology advancements, include NATE's Live Online Proctoring (LOP) test administration, the Certified HVAC Professional (CHP-5) certification pathway, and online-virtual learning.

Making the certification process more convenient for test-takers was important, says NATE's Anthony Spagnoli, director, testing and education. "Virtual learning pairs well with the new Live Online Proctoring, as both training and certification testing can be done on the technicians' schedules and entirely from the comfort of their homes."

The CHP-5 certification pathway was created after careful consideration, Spagnoli explains: "NATE created the CHP-5 certification based on feedback from the industry. The consensus was they wanted a certification that was broken up into smaller segments to make preparation for the exam less daunting for the technicians. Additionally, we wanted to make it as accessible as possible, so we added remote Live Online Proctoring as an option to take the exam."

Techniques that instructors use as they guide candidates in certification classes haven't changed much, Spagnoli adds. "While online training has been around in the HVACR industry for a while, a lot of the training was still being done in person. This is largely due to the nature of the industry

Photo: © Dima6060 | Dreamstime.com

and having technicians work on equipment directly in order to learn. Being able to work with equipment directly is a definite advantage of in-person training.”

But the COVID-19 pandemic and social distancing have changed all that, Spagnoli notes, “Training methods have had to change quite dramatically due to the pandemic, with HVACR instructors finding new ways to demonstrate work on equipment virtually, such as through recorded or live sessions with camera close-ups or 3D simulations.”

Course instructors have to do things differently when they offer virtual compared to in-person learning. “Speaking with instructors, they typically need to make training courses shorter in more-focused segments for online training compared to a full-day course when done in person,” according to Spagnoli. “Keeping the content interesting and having ways to engage with learners also increases the effectiveness of the training.”

21ST CENTURY TRAINING

NATE is partnering with Interplay Learning and HVACRedu.net on developing its online training portal for the new CHP-5 certification pathway. “NATE has been partners with both groups for a long time, as they have both previously offered training courses for NATE continuing education hours. Both of the organizations’ tech teams were excellent, and we were able to quickly set up new reporting functions for the training portal,” Spagnoli says.

Interplay Learning’s CEO Doug Donovan explains that he mapped his firm’s content against NATE’s new CHP-5 certifications and saw that his firm had considerable coverage of the subject matter. “NATE wanted to provide an accessible, affordable solution for training for those who wished to pursue the new certifications,” Donovan says.

Interplay Learning offers an online, on-demand skilled trades training catalog featuring virtual reality (VR) and 3D simulations. This global provider of online and virtual reality training is revolutionizing training for the skilled trades. The firm, based in Austin, Texas, has helped 80,000 professionals advance their skills, and is bringing skills training to millions more.

The company offers digital learning simulations for the HVACR, plumbing, electrical, solar, and facilities maintenance workforces. Using a digital experiential learning platform, the company allows its customers to practice hands-on learning and train to be job-ready in weeks, rather than years.

Donovan is confident there may be more Interplay Learning-NATE collaborations. “NATE,” he says, “appreciates that the world is changing faster than ever. They must adapt to keep the industry attractive to a new generation of technical professionals. With our deep experience in online training and their reach into and respect in the industry, we anticipate a growing and strengthening partnership.”

Donovan believes the HVACR industry and other skilled trades are in the first inning in their use of virtual learning and virtual reality training. To remain competitive, service companies are going to have to weave in online training into their career development programs. “The new technicians are digital-first, so service firms must have recruitment and training programs to support that,” he says.

Donovan explains online learning that is effective has a few key characteristics. “The learning must be engaging and interactive,” he says. “Digital Experiential Learning is at the core of what we do. Point-of-view simula-



“THE PANDEMIC HAS BEEN A CATALYST. FOR ANYONE ON THE FENCE, THEIR ONLY OPTION WAS TO MOVE TOWARDS ONLINE. WHAT THEY ARE FINDING IS THAT IT IS A LOT MORE SUCCESSFUL THAN THEY ANTICIPATED, SO WE ARE SEEING THE ACCELERATION CONTINUE.”

— Doug Donovan, CEO, Interplay Learning



Training provider Interplay Learning uses virtual reality technology (shown in the image) to enable hands-on skills development in an interactive learning environment. Point-of-view simulations, either online or in virtual reality, put a user in a service call scenario, where an HVACR technician must learn in an environment that mimics the real world.

“THE EFFICIENCY OF ONLINE LEARNING IS OFF THE CHARTS!”

— Chris Compton, CEO and founder of HVACRedu.net



tions—either online or in virtual reality—put users in a service-call scenario, where they must learn in an environment that mimics the real world. HVACR techs don’t want to read a textbook online.”

According to Donovan, the COVID-19 pandemic sped up the shift from in-person to virtual learning: “The pandemic has been a catalyst. For anyone on the fence, their only option was to move towards online. What they are finding is that it is a lot more successful than they anticipated, so we are seeing the acceleration continue.”

HVACRedu.net also has partnered with NATE on the creation of the NATE online training platform. The site, which has a 22-year history of providing online HVACR training, is providing its curriculum to help current and future HVACR workforce techs reach their NATE certification goals. Through the site, technicians can learn from 1,600 hours of academic-level curriculum.

“We have provided a NATE on-ramp to technicians for decades with an ascending line of programs, including Ready-to-Work, NATE Core Exam, and all Installation and Service Specialties,” says Chris Compton, CEO and founder of HVACRedu.net. “We don’t teach to the exams; we teach to the industry knowledge base, which if known and understood, will allow a technician at any of the levels and specialties (including the Senior Level Efficiency Analyst; we have had a few of those in the past) to achieve their goals.”

Compton says the HVACRedu.net website can be a big help to technicians seeking to earn their NATE certifications. “The ease and convenience of being able to log into our campuses (we have four) at any time, day or night, to study eliminates all schedules, travel, locations, etc.”

Compton is sold on the value of online instruction. “The efficiency of online learning,” he says, “is off the charts! The only possible downside is that many first-time online students have the idea that online is easy. Learning technical skills requires diligent study and dedication as a self-directed learner. Our program is rigorous; we aren’t messing around. We know what a technician needs to know to be successful and are not going to compromise our learning process to coddle someone that is less than serious about learning.”

The HVACRedu.net website maintains a student services team to handle administrative issues, track student progress, and provide progress reports to employers. The site has a live faculty team that is available to answer technical questions via a toll-free number or email. “Ironically,” notes Compton, “based upon the large number of students we serve, the faculty support team is not overwhelmed, which testifies to the comprehensive nature of our online content. Our learners ‘get it,’ complete their exercises and assignments, take the module exam, and move on without connecting with faculty excessively.”

Compton adds that a large segment of the learners his site serves are

In This Together

The COVID-19 pandemic challenges us to collaborate in ways that were previously unimaginable. The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) salutes our 300+ HVACR and water heater member manufacturers, U.S. and international government agencies, and civil organizations working to keep the industry moving forward during this difficult time.

Across the globe, AHRI has been working diligently to ensure continued health, safety, comfort, and productivity for all, by:

Advocating for the HVACR industry's designation as essential, both in terms of manufacturing and service;

Providing up-to-the-minute information on COVID-19-related policies and their impacts on the industry via AHRI web platforms; and

Partnering with agencies around the world working to ensure availability of health-enhancing and life-saving HVACR and water heating equipment.

We WILL emerge stronger and wiser for this experience, but in the meantime, let us celebrate the power of partnership, and the value of our industry to the world.



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“PERSONALLY, I LIKE THE IDEA OF VIRTUAL AND ONLINE TRAINING; I FEEL IT CHANGES THE PACE OF TRAINING TO BETTER SUIT THE INDIVIDUAL. AS TECHNOLOGY PROGRESSES, A LARGE PORTION OF THE ONLINE TRAINING WILL BEGIN TO LOOK AND FEEL A LOT MORE LIKE HANDS-ON LEARNING.”

– Neal Polycandriotis, HVAC operations manager at A.J. Perri, Tinton Falls, New Jersey

working towards a NATE certification, serving an apprenticeship, participating in employer-supported training, or expanding their knowledge base to move up in their careers. His site tracks participants who are working towards NATE certifications. “Our learners,” he says, “show a 99 percent pass rate on the Ready-to-Work, a 95 percent pass rate on the NATE Core Exam, and 85 to 92 percent pass rate on the Installation and Service Specialties, depending on the type.”

Another industry executive who believes the pandemic has accelerated the shift from in-person to virtual learning is Neal Polycandriotis, HVAC operations manager at A.J. Perri, Tinton Falls, New Jersey. The company offers heating, cooling, indoor air quality, and plumbing services to Garden State homeowners. It’s been in the home comfort business for 49 years. “During quarantine and lockdowns, training was almost put to a complete stop. Now, with social distancing requirements, we have gone from having meetings and classes with upwards of 40 technicians at a time in our classroom to now being allowed only 10 to 12. This has driven us to develop and commit to a program of full online training.”

Polycandriotis is sold on the benefits of 21st century remote learning and training. “Personally, I like the idea of virtual and online training; I feel it changes the pace of training to better suit the individual. As technology progresses, a large portion of online training will begin to look and feel a lot more like hands-on learning.”

Polycandriotis believes that today’s students have the ability to learn as well or even better virtually than in person. “People learning virtually can be more in their comfort zone, and most of the new generation of technicians are very familiar with the online space. So, this is second nature to many.”

Polycandriotis adds that virtual learning will make it easier and more convenient for technicians to earn their NATE certifications. “I really believe virtual learning will make a huge difference—in a positive way—for technicians working to earn their NATE certifications as well as credits, because they can do all this at their own pace and convenience.” He also believes that virtual learning will enhance the value of NATE’s various certification programs. “I think virtual learning will accomplish that, as it allows for a huge marketplace for technicians to get information and further their careers and abilities with online training. Not to mention the geographic aspect; the instructor could be in Alaska while the techs are anywhere in the world.”

The sky’s the limit for virtual learning in the NATE universe, NATE’s Anthony Spagnoli says. “As simulations and other technologies become more advanced,” he notes, “we will see more and more technicians supplement traditional hands-on training with virtual training for the convenience of being able to do it from home and on their schedule.”

Spagnoli believes the pandemic accelerated the shift from in-person to virtual learning and that the virtual learning model is here to stay. “The pandemic has caused much of the training we normally see in person to shift to online. While I think the acceleration will slow after the pandemic subsides, I do think virtual training is a permanent option that technicians will continue to have and use.” ●

Michael Keating is a contributor to *The NATE Magazine*.

“
**They said they
were art collectors.**
”



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CareerStep Offers HVACR Training and Path to NATE Certification

NATE'S PARTNERING WITH ORGANIZATIONS SUCH AS CAREERSTEP GIVES TECHNICIANS ANOTHER OPTION FOR RECEIVING HVACR TRAINING.

CareerStep, a division of Carrus, Lehi, Utah, a company specializing in training and continuing education since 1992, has begun offering HVACR training via a partnership with NATE. CareerStep provides the training courses through its education portal while NATE provides the testing through its Live Online Proctoring service and in-person exams with NATE Testing Organizations.

The program provides a comprehensive overview of all aspects of HVACR, with the goal of preparing learners to be able to install and maintain HVACR systems. Through a combination of

theoretical and practical applications, learners gain a solid understanding of how HVACR systems work prior to entering the workforce.

The self-paced course includes 430 total study hours. Upon completion, learners will be prepared to obtain entry-level HVACR positions. Learners also will meet basic requirements to sit for the NATE national certification exam to become a Certified HVACR Technician, as well as to begin working toward advanced-level certifications.

CareerStep provides education through the use of 3D modeling, simulations, interactive case studies, and

other customized learning methods. Its approach to employment readiness ensures that students not only receive the education they need to pass their certification exams, but also to prepare them for employment, reducing the learning curve on the job.

Online access is available through Canvas, the Learning Management System that CareerStep uses to deliver its courses. Self-paced learning enables students to work through 14 modules, studying on a schedule that fits their life and progressing at a pace that matches their personal learning style and goals.

COLLABORATION WITH NATE

Anthony Spagnoli, NATE director of testing and education, says the training program will help prepare entry-level candidates for a career as HVACR technicians. Along with Spagnoli, individuals from NATE who helped set up the program are Gurminder Sidhu, senior director, operations, and Daisy Weill, marketing manager. Also involved were CareerStep's Michele Jacobs, compliance specialist, and Shauna Vorkink, vice president of learner experience.

As for the genesis of this cooperative effort, Spagnoli notes that CareerStep already had an HVACR program and was looking to add an industry-recognized certification as a capstone. "CareerStep reached out to NATE and found that our exams were a good fit for their program. The partnership will benefit NATE because every technician has a different learning style and preference when it comes to training. Partnering with organizations such as CareerStep gives technicians another option for getting training," Spagnoli says.

NATE has many partnerships with schools and other training organizations. These organizations use NATE certificates and certification tests as a tool to validate that those students have acquired the job knowledge and skills they need. In fact, NATE has more than 2,000 testing and training partners—including many community colleges and vocational schools across the country.

"This has been a tumultuous year that has led to rapid change in our industry," says Spagnoli, "and we will always strive to be the leader in supporting the HVACR community."

HVACR OPPORTUNITIES ABOUND

CareerStep offers a variety of certification programs. Each program is a gateway to new opportunities, can be completed in a matter of months,

and fills a need in an industry with significant growth projections over the next decade. "We are continually expanding our catalog to meet the demands of the current marketplace and providing our learners with options for meaningful ways to advance their careers and contribute to their communities," says Derris Moore, senior vice president and general manager of CareerStep.

As to why CareerStep decided to offer this particular training program, Moore notes that the HVACR technician is one of the most in-demand jobs in the service market—and opportunities are expected to skyrocket over the next 10 years. "Heating and air conditioning units aren't a luxury—they're a basic necessity—and as businesses expand and neighborhoods grow, the need for professionals with a working knowledge of what it takes to keep these machines up and running will continue to increase."

Moore sees the following people signing up for this course.

- People searching for more reliable employment opportunities given the current U.S. job market. "While COVID-19 has affected every industry in the job market, there are certain areas of the economy such as HVACR that are essential and are predicted to weather the storm."
- People looking for more flexible ways to train for a new career. "With our online training, learners can complete courses from the comfort of their own home and at their own pace. Many programs can be completed in six months or less. This means that people with full-time jobs can continue working while they complete the training."
- Those who want to take advantage of the fantastic pay and long-term job security

the HVACR industry offers.

"Beyond entry-level positions, career advancement options are well-established and pay scales up quickly with experience."

- Learners who are looking for entry-level training in a more mechanical, hands-on industry.
- Learners who need to brush up on their HVACR knowledge and are thinking about investing in additional career training.
- Eligible military spouses looking for career training. "CareerStep has been a member of the Military Spouse Employment Partnership since June 2011 and has been named to *GI Jobs* magazine's list of military-friendly schools many times. Our HVACR training is MyCAA-approved, which means eligible military spouses can train with up to \$4,000 of their tuition covered."

The CareerStep program utilizes the *Fundamentals of HVACR* (3rd Edition) textbook by Carter Stanfield and David Skaves, published by Prentice Hall. Program materials are delivered through the Canvas Learning Management System and are released to students based upon completion of required learning objects and performance on graded assessments.

CareerStep gives learners a full 12 months of program access to ensure that all students can complete the program at a pace that meets their individual needs. Program instructors have real-world technical experience and are available to meet with learners one-on-one for instructional sessions based on student needs.

Various financing options are available to help prospective students get started with the program. Full program information can be found at www.careerstep.com/programs/funded/hvac-technician.

Neal Lorenzi is a contributor to the *NATE Magazine*.

SkillCat Bridges the Gap between Prospective Employees, Employers in Need

SKILLCAT'S TRAINING OPTIONS PREPARE CANDIDATES FOR THE NATE EXAM. CANDIDATES THEN SIGN UP THROUGH THE NATE WEBSITE FOR LIVE ONLINE PROCTORING.

Staffing issues have been increasingly problematic for the HVACR industry—more technicians are retiring than are joining the industry, creating a shortage of interested and available employees. High schools, trade schools, and industry associations, along with contractors and manufacturers, have been working to get the word out about the benefits of a career in the HVACR field, and now SkillCat is lending its expertise to the effort, as well.

Houston, Texas-based SkillCat provides assistance on both sides of the equation. It offers those interested in a career in HVACR a free, online, simulation bootcamp to show partner companies their skills. On the flip side, it provides businesses with a database of workers who have been verified as competent in key job skills on a simulator.

Founder Ruchir Shah, who has degrees in engineering and computer science, saw an opportunity in HVACR after providing similar services in the oil and gas industry.

“Our team has spent the last five years building out a company with online animated courses and virtual simulators to train oil and gas workers. [Since COVID-19 hit] a lot of workers



SkillCat's online bootcamp for the oil and gas industries includes a drilling simulation.

on our platform have gone through layoffs,” he says. “There are so many people hurting and struggling in oil and gas, manufacturing, and so many industries, but there are a lot of workers needed in HVACR. It seemed like a really great opportunity to reskill these workers and place them into jobs in HVACR.”

But those currently in the workforce are not the only ones who can benefit from SkillCat’s services.

“One of the things you hear about a lot in the trades is that young people aren’t interested,” Shah explains. “What we’ve seen is a lot of young people really are interested, but training in the trades is not always accessible to them. So, bringing these opportunities to people digitally—we have a lot of young people who’ve been really interested, as well.”

No matter what age the job seekers are, SkillCat is hoping to bridge the gap between those workers and HVACR companies in need of quality employees.

“There are exceptional workers on our platform who have really great skills...but they don’t have any exposure to HVACR, don’t know anything about it, haven’t spent the time learning about the industry, and can’t really afford to take a year or two years out of their lives to go to school,” Shah says. “We see ourselves as an outlet to help bring workers from other industries into HVACR, skill them up enough so that they can get a job, and validate that their skills are actually going to be useful to employers.”

GETTING INTO HVACR

SkillCat’s move into HVACR required getting up to speed on the industry and its needs so it could offer the best experience to those hiring and those looking to get hired.

Shah notes, “We have a rockstar team of subject matter experts in HVACR who help us build out a lot of content. Our

team itself includes engineers with a lot of experience in general engineering fundamentals. We’re also working with companies right now as partners who are helping us identify things that are important to them when looking to hire HVACR workers.”

At this point, those wanting to get hired by an HVACR company can participate in three main training offerings: Intro to HVAC, EPA Universal Training, and NATE Ready-to-Work Training. A number of additional courses are available, including Applied Math for Technicians; Electricity: Fundamentals and Skills for HVAC Techs; Understanding Heating Systems and Airflow Systems and Components.

All of the training is 100 percent online. It includes virtual animations for difficult concepts and game-like simulations for every key job skill. There’s no cost for the training; trainees only pay if they find work through SkillCat’s platform.

“Our focus,” Shah says, “is really assessing workers. We’ve built out simulators that can evaluate a worker’s mechanical and electrical aptitude. The goal is taking oil and gas workers or workers from another industry, putting them through our simulators to assess their mechanical and electrical skills, and then giving them a bootcamp of initial training. The combination gives them enough HVACR knowledge to start bringing value day one on the job.”

On the other side of the equation, employers looking to fill out their rosters can use SkillCat’s database to find prescreened technicians in their area who are looking for employment. The database includes certifications, simulation scores, and years of experience, among other information. SkillCat claims that this process can boost retention at businesses to 95 percent.

The database has about 25,000 workers listed currently. Fifty percent to 60 percent of the oil and gas workers in the database have gone through layoffs and are actively looking for jobs in other careers. According to Shah, “We have this really huge base of workers that are interested in getting into HVACR.”

Since the company entered the HVACR space earlier this year, Shah said the number of people going through initial HVACR training is in the “low thousands” and steadily growing.

THE POWER OF PARTNERSHIPS

SkillCat’s HVACR focus was launched this summer, and it already has a number of industry partners, including Carrier, which is an initial development partner of the company. One of SkillCat’s most visible partners, though, is NATE.

“In oil and gas, we’ve worked with various accreditation organizations, so my first instinct when coming into

“IT BECAME PRETTY CLEAR THAT NATE IS A SUPER WELL-RESPECTED AND REALLY IMPORTANT NAME IN THE INDUSTRY, BRINGING A LOT OF STANDARDIZATION, SKILLS ASSESSMENT, AND CERTIFICATIONS TO AN INDUSTRY WHERE EVERYTHING ISN’T REALLY THAT STANDARDIZED.”

– Ruchir Shah, founder, SkillCat



SkillCat's bootcamp includes a 3D animation for every concept and a virtual simulation for every job skill.

HVACR was looking for organizations that accredit training and are involved in assessing workers," Shah says. "It became pretty clear that NATE is a super well-respected and really important name in the industry, bringing a lot of standardization, skills assessment, and certifications to an industry where everything isn't really that standardized."

Shah contacted NATE and received a number of "insightful" ideas. Then, the relationship received a boost from one of SkillCat's initial advisors, David Small, manager of technical excellence and quality assurance at Crossway Mechanical, Cypress, Texas.

"He's been a key advisor, bringing us into NATE and showing us all of the value the organization provides," Shah states. "We think it's a really incredible resource for the industry."

According to Shah, NATE's detailed breakdown of different levels of technicians and the skills needed for each level has been very helpful in terms of helping the company identify who is the right worker for each job.

In terms of NATE testing, SkillCat's training options prepare candidates for the NATE Ready to Work Certificate. Then, the candidates sign up through the NATE website to take the exam online.

Contractors are another key partner opportunity.

"Many HVACR contractors all over the country have started leveraging us, either as a resource to bring workers to their companies or as a resource for our assessments, where they can use

our assessments to assess workers' skills," according to Shah.

The company also is collaborating with about 30 trade schools to help their graduates find jobs with HVACR companies that need workers. In addition, SkillCat has partnered with an organization that works to place women into skilled trade jobs.

"One of the challenges the organizations reports—not just in HVACR but in some other trades, as well—is that many of these women don't have past trade experience, or companies don't believe they have mechanical or electrical aptitude," Shah says. "But through our simulator instead of a more subjective resume or interview, we do a really science-based assessment where you can actually use a multimeter or some electrical tool virtually. You can demonstrate that you have that knowledge and ability just as much as anyone else who may have more actual experience. You can show you have the skills."

MAKING PROGRESS

Shah says about 200 new people sign up for SkillCat's platform every week and that putting a career in HVACR in perspective will help attract more people interested in being technicians.

"The opportunity is incredible," he says. "I spent time in Silicon Valley, and there are many, many companies that do training and placements for programming jobs and for computer science. I wrote this blog post, 'Don't learn to code, learn a trade,' and it got a lot of reaction."

Shah's point in the blog post, which he has carried over into his company, is the job security and quality of life that a career in HVACR provides.

"In a lot of entry-level HVACR technician jobs," he explains, "you make a similar amount of money as an entry-level programming person or coder, but your job satisfaction is substantially higher. It's something like 85

percent job satisfaction in an HVACR job versus 50 percent in a computer science job. So, you're happier, you make close to the same salary, and there's a larger shortage of skilled trade jobs than there is for coding or computer science jobs."

To meet this need, SkillCat is working to expand its offerings, starting with building out more training. The company also is looking to expand into commercial and industrial HVACR to bring more value to clients.

In addition, SkillCat is in the process of becoming an official proctor for the EPA exam and is in the final stages of being approved as a testing organization for it.

"The reason HVACR companies don't grow faster is not because they can't find customers. It's because they can't find workers, which is something we're hoping to solve," he notes.

Shah concludes that SkillCat is 100 percent behind the importance of training, testing, and certification in the HVACR industry.

"Our whole company's focus," he says, "is training certification and assessment, so it's really important to us. What we've seen is a lot of companies in the skilled trade world, in general, do a lot of ad hoc hiring because, historically, companies have been able to just call friends for referrals. Kind of a good-old-boy network—just call around and find people who are a good fit and bring them on board. But we're seeing this huge HVACR worker shortage, and it's no longer possible to do that all the time. So training is becoming increasingly important. Assessment is becoming increasingly important. Certification is becoming increasingly important. And we're here to bring all of those things to the industry in every way we can." ●

Elaine Yetzer Simon is a contributor to the *NATE Magazine*.



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Spotlight On NATE Technicians



There are many traits that describe great leaders. A great leader is ambitious, has vision, and is resourceful. Great leaders are well-educated and know that in order to be successful in a career, the learning process never ends.

In the HVACR industry, technicians continue the education process by gaining NATE certifications. The *NATE Magazine* would like to put the spotlight on the following NATE-certified technicians who are leaders in the HVACR industry.



JORGE FLORES

1. TITLE/EMPLOYER: Steam Operating Engineer, University of California Los Angeles (UCLA)

2. LOCATION YOU SERVE: The Westwood Campus

3. WHAT DO YOU DO (AS A TECHNICIAN) ON A DAILY BASIS? I am assigned a number of buildings, which include research laboratories that contain high-containment areas requiring a certain temperature and humidity. Each building has steam distribution throughout and chilled water pumps, hot water pumps, vacuum pumps, air handlers, fan coil units, fume hoods, and heat exchangers. I make sure all the equipment is operating properly. I am responsible for repair and maintenance of all mechanical equipment, along with solving building automation issues and responding to service calls within my assigned buildings.

4. HOW MANY YEARS HAVE YOU BEEN WORKING IN THE HVACR INDUSTRY? 16 years

5. WHAT LED YOU TO A CAREER IN HVACR? I wanted to learn a trade where I could utilize my mechanical ability and find a trade that is always in demand. I took an interest in HVACR after taking my first class and found it interesting—how the refrigeration cycle works along with learning thermodynamics and the relationship between the two. I continued learning and eventually got into the trade. To this day, the learning continues.

6. WHAT NATE CERTIFICATIONS DO YOU CURRENTLY HAVE? WHEN DID YOU GET THOSE CERTIFICATIONS? AC Service and AC Installation. I received the certificates in 2006.

7. WHAT VALUE DO YOU FEEL THAT THE NATE CERTIFICATIONS HAVE ON YOUR CAREER IN HVACR? I obtained my certifications as a personal achievement. Being NATE-certified gives me a sense of accomplishment and confidence in my abilities as a technician. The requirements to maintain certification ensure that education continues, which has helped me in my career. The continuing education helps reinforce everything I've learned along with making me a better technician, because in this business you are constantly learning new things. Being NATE-certified puts me one step ahead of the competition, and I highly recommend it.

8. WHAT ADVICE WOULD YOU GIVE A NEWCOMER LOOKING TO BE SUCCESSFUL IN THE HVACR INDUSTRY? If you're not in the trade, start taking classes at your community college. Check with your local distributors; they may offer classes. Your utility company may offer free evening classes; free webinars and online training also are available. Join organizations such as Refrigeration Service Engineers Society.

Apply for an entry-level position; once you're in, do everything that is asked of you. Always surround yourself with people who are willing to help you; ask a lot of questions; don't get complacent; strive to do better; always continue

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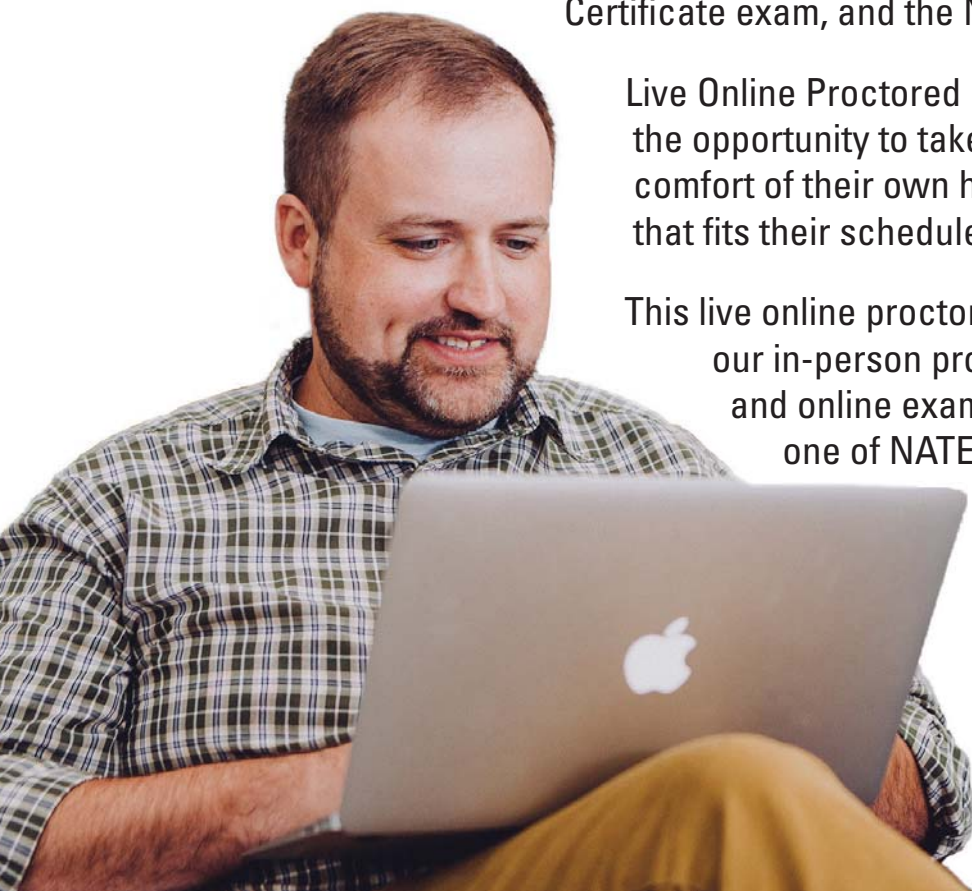


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your education to obtain certifications, whether your job requires it or not. As you grow in the trade, remember to help those who are just getting started. It's rewarding to pass on your knowledge to others and watch them grow.

9. DO YOU HAVE ANY FUNNY/INTERESTING SERVICE CALL STORIES YOU'D LIKE TO SHARE? Many movies are filmed at UCLA. Who would have thought that my job would be essential to filming the Will Ferrell movie, "Land of the Lost"? I was asked to work over a weekend to maintain and control the HVACR while they filmed in one of our labs. What a great experience to work on a movie set and to be up close and personal with the stars of the film. Maybe the next film I get to work on will be a Halle Berry movie.

ELLA WATKINS

1. TITLE/EMPLOYER: Building Stationary Engineer, City of Cleveland

2. LOCATION YOU SERVE: Cleveland

3. WHAT DO YOU DO (AS A TECHNICIAN) ON A DAILY BASIS? I work in all the buildings owned and operated by the city—about 150 buildings of different types and sizes, maintaining various types of equipment.

4. HOW MANY YEARS HAVE YOU BEEN WORKING IN THE HVACR INDUSTRY? I have been working in this field for 28 years, 25 for the City of Cleveland.

5. WHAT LED YOU TO A CAREER IN HVACR? I was a single mom back in 1989 when I started dating an electrician. He suggested that I could earn extra money with him as a laborer. I've always been interested in learning and doing new things, so I agreed. When he saw how quickly I learned, he decided to train me to help him do wiring and troubleshooting. We wired a dental office, several homes, and numerous calls for repair. I very much enjoyed the work.

In 1991, I qualified for free training through Cuyahoga County. I went to Westside Institute of Technology to learn more about wiring and walked into the Building Engineer section by mistake. I took the test and only missed one



question. Well, I never dreamed of the challenge I took on. It was hard being the only woman in the class. But I graduated the Building Engineer program in 1992 with a 98 percent score. I was 30 years old at that time. Two years later, I learned that the City of Cleveland was hiring building engineers. I applied and was hired by Tom Nagel, who later helped set up the NATE Certification program in the City of Cleveland. Under this program, building engineers can earn a higher rate of pay according to the amount of NATE certifications they attain.

6. WHAT NATE CERTIFICATIONS DO YOU CURRENTLY HAVE? WHEN DID YOU GET THOSE CERTIFICATIONS? I started with the NATE Core around 2015. I received the NATE Gas in 2017. I began pursuing the Senior Analyst in 2018. I now have the Gas/Oil, Air Conditioning/Heat Pump, Hydronics, Light Commercial Refrigeration and Commercial Refrigeration NATE certifications.

7. WHAT VALUE DO YOU FEEL THAT THE NATE CERTIFICATIONS HAVE ON YOUR CAREER IN HVACR? I have always enjoyed learning. The NATE Certification program gave me the opportunity to show the quality of my knowledge and the abilities I have attained over the years. Without the NATE program, I wouldn't have had that chance. Achieving the NATE certifications has been rewarding and enlightening for me. I highly recommend it to anyone in the field who wants to show the world that they have what it takes to be a good technician and that they are willing to learn and grow.

8. WHAT ADVICE WOULD YOU GIVE A NEWCOMER LOOKING TO BE SUCCESSFUL IN THE HVACR INDUSTRY? To be good in this field, you have to be willing to get dirty, really dirty sometimes. You also need to think outside the box—to recognize that something may not be what it appears at first, to learn and grow, to be a detective and put all the clues together when faced with a confounding problem, to ask for help, to enjoy the challenge of finding and repairing a problem. The HVACR field will always hold your interest. The equipment is always changing, and the circumstances are always different. It's held my interest for 28 years and counting. I would love to see more women in this field. I think women have a more questioning viewpoint of the world. That's a valuable asset. You do need physical strength, but it's not all you need.

9. DO YOU HAVE ANY FUNNY/INTERESTING SERVICE CALL STORIES YOU'D LIKE TO SHARE? I have a lot of funny stories but the ones that always pop up in my mind involve geese. Between defending their nests and flying in a flock above your head, geese are unforgettable. ●

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