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# SPRINKLER AGE

OFFICIAL PUBLICATION OF THE AMERICAN FIRE SPRINKLER ASSOCIATION

VOL 43/01



# COTICCHIO WINS

2023 NATIONAL APPRENTICE COMPETITION

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### Our Mission

AFSA is the voice of the merit shop fire sprinkler contractor. We educate and train the industry while promoting fire protection systems to save lives and property.

### Our Vision

To be a relentless force for a world free from the devastation caused by fires in commercial and residential structures.

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# CHAIR'S MESSAGE

I hope everyone had a safe, healthy, and fun-filled Christmas and New Year! Sadly, I start off remembering Joe Heinrich, who passed away in November 2023. Joe was Chair of the AFSA Board of Directors from 2013-2015 and was instrumental in developing the NextGen committee. He had a keen understanding of the future success of our industry in developing and mentoring the younger future generation, and he showed that through great leadership. Joe will be remembered for his big, friendly smile, always finding solutions to problems, his integrity in all he did, and, last but not least, his love of family and having a big, tall cold brew with his friends. He will be greatly missed! Our Board is committed to continuing Joe's legacy and expanding our reach into high schools and technical schools.

After hearing about the success of the AFSA Virginia Chapter, which developed a hands-on approach by introducing students to career opportunities in our industry with the Henrico County Public Schools, ASFA has introduced a pilot program using the Apprenticeship Training Book 1 with Gilbreath Reed Technical Center in Garland, Texas, under Kurt Ortley, architect and instructor for the program. AFSA will provide Book 1 free of charge to all schools that implement this program.

Last year, our president, Bob Caputo, initiated, with the approval of the Membership Committee and the Board of Directors, a new membership category for facility managers. In March, AFSA will attend the National Facility Management & Technology (NFMT) Conference and the ABC convention. Our goal is to introduce our association to its members and encourage them to join our association for the many training programs we offer. We feel this is a great opportunity to reach out to industry organizations and collaborate on life safety issues.

The Building Owners and Management Association (BOMA) is another association in which I am involved. This is a group that provides us the opportunity to provide fire protection solutions and assist in managing their facilities. This collaboration is a win for both associations and their members.

This is an exciting time for our members. Your association is strong and committed to providing the best-of-class training to fitters, apprentices, designers, and superintendents. We are investing more in our new headquarters with state-of-the-art training facilities, our chapters, and our next generation, as well as building stronger alliances with manufacturers and suppliers.

I have made several trips to our Richardson, Texas, headquarters, and each time, I am amazed to see the progress, from the collaboration with one of our local Contractor members, Firetrol, for installing the valves and to our manufacturers and suppliers for donating the materials. Thank you for your continued support of the AFSA mission. We are extremely excited to start hands-on training with our Apprenticeship Training curriculum, hopefully in March.

I would also like to express my deepest appreciation to Marlene Garrett, vice president of meetings & education services, for her dedication to the AFSA over the past 26 years. Region 2 Director Don Kaufman and I, representing the AFSA Board of Directors, presented her with a plaque showing our appreciation for her professionalism, calm disposition during difficult situations, and loyal friendship. Marlene, you will be missed by many, and we wish you the best in your next chapter.

Our future looks bright as we continue to build on the success of the merit shop fire sprinkler contractor! ■



**LINDA M. BIERNACKI**  
AFSA BOARD CHAIR

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## ABOUT AFSA MEMBERSHIP

AFSA annual membership dues are a sliding scale for Contractors and Associates and a flat fee for Authorities Having Jurisdiction. (Members receive a free subscription to *Sprinkler Age*.) Write or call AFSA for membership information. See AFSA's website at [firesprinkler.org](http://firesprinkler.org).



# PRESIDENT'S REPORT

**W**elcome to 2024! I hope everyone had a great holiday season, and we're all looking forward to yet another year of good health and prosperity for our industry! I've learned the one thing that's guaranteed in our lifetime is change. Each New Year's celebration brings hope and a new start for us all. The many soon-to-be-forgotten resolutions also remind us that the more some things change, the more they remain the same. After 26 years as AFSA's leader in coordinating our education, meetings, and conventions, Marlene Garrett has decided to move on to new challenges in her career and professional development. I hope everyone will join me, our Board of Directors, and the AFSA staff in wishing her all the best in her new role with an association in the medical services world. Her last official day was December 31, 2023, but she promised not to be a stranger as she plans to stop by and see our lab in full function. You may even see her as a guest at a future AFSA convention. Twenty-six years is a very long time to be anywhere, and she will be missed by the many friends and associates she leaves behind. While change is inevitable, it is also exciting to see what the next evolution holds for AFSA. The one thing we know for sure is that the next meeting planner we hire will have some big shoes to fill. Godspeed, Marlene, we wish you well.

In addition to learning more about association leadership, my focus over these past few years has been on technical services and updating AFSA's programs to keep pace with our ever-changing industry in terms of technology, codes, and standards, along with new challenges in construction trends. Storage facilities have always been challenging for fire sprinkler system design, but the latest trends in automated retrieval systems and storage heights have literally taken this challenge to new heights. Parking garages, vehicles in general, as well as electric cars and battery charging of electric scooters and bicycles, have added to the challenge of protecting the built environment. Change... nothing stays the same except for the fact that our work continues to get more complex and brings more liability for our members.

In 2024, my focus will shift a little to include the growth of AFSA and its chapters. I plan to visit chapters more and help our chapter leaders meet local and regional needs and address regional concerns.

That said, our Technical Services team will be rolling out a wide range of new programs to educate more of our members' teams. AFSA's new "Fire Sprinkler 101" program will help our members onboard new employees who may not be familiar with fire sprinkler systems and the language of our industry. This will literally be an entry-level, live, eight-hour seminar program introducing novices to our world. Along the line of thinking about bringing much-needed new DNA to our industry, AFSA staff will help lead the way in developing more outreach to high schools and community colleges to

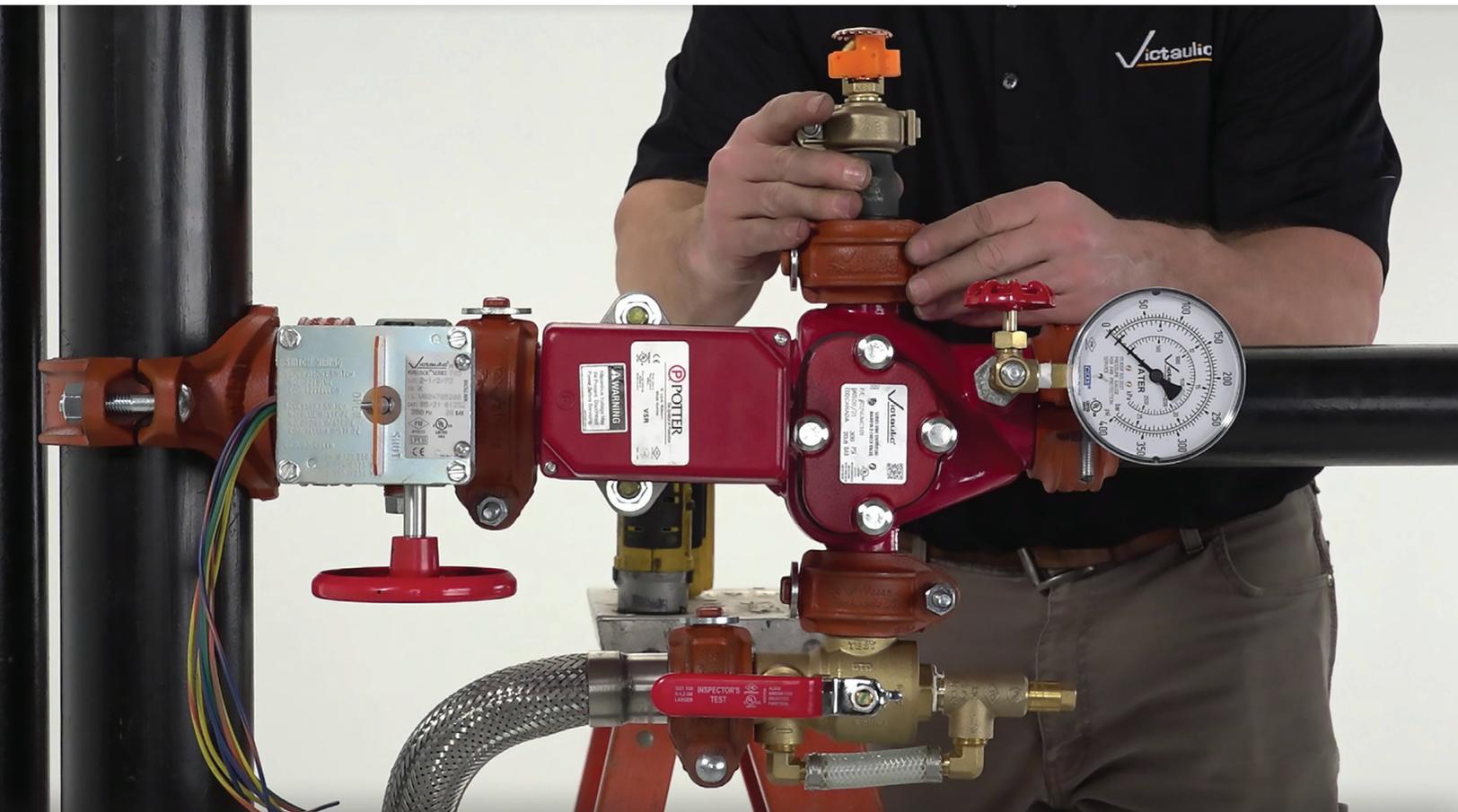
educate and attract more students by exposing them to our industry's opportunities. This is a topic I addressed in our last edition, but I want to emphasize the importance of this for our industry! Here in the Dallas area, we will be working with a local magnet high school to introduce fire sprinklers, where students in the district are already exposed to every trade you can think of, including culinary arts, automotive repair, and computer programming. This is site-specific, but we're hopeful many parts of this initial program will be exportable to a wider audience. We hope to encourage and support local chapters to participate in career days and fairs while offering the kinds of training programs that will accelerate the learning curve to make your new hires productive.

On a sad note, I want to acknowledge the passing of one of the kindest and helpful men I've ever had the privilege of knowing, Joe Heinrich of Bamford Fire Sprinkler in Salina, Kansas. Joe was a Board member and served as AFSA Chair from 2013-2015. Most recently, Joe has been the Chair of our NextGen Initiative, which should tell you all you need to know about Joe's youthful exuberance and his attitude toward life. I attended Joe's funeral service in Salina, and, based on the very full church, I can tell you he was a man who lived in his community and not just in his house. Joe is survived by a beautiful large family, including his son, Brett, who is the man who manages the National Apprenticeship Competition at AFSA's annual convention. If you didn't know Joe Heinrich, I assure you, you missed out on knowing a truly great man and a dedicated fire protection contractor. Rest in peace, Joe. You will be missed.

In closing, I want to say a very sincere "Thank you!" to all our volunteer chapter leaders and executive directors for their hard work and commitment of time in making our association work at the member and chapter levels. Your AFSA staff is here to help you with any issues you may have. We want you to know how much we appreciate you and the work you are doing. As I observe the political climate as it relates to labor issues and the efforts of organized labor to legislate open shop contractors out of competitive opportunities, I ask you all to stay diligent and let us know when we can be of help to combat these overt and covert actions. Let's not assume the days of concern for organized labor's influence are in the rearview mirror. Nothing is further from the truth—we are still under attack, and we are all stronger together, especially when it comes to protecting the open shop movement. I'm wishing a happy, healthy, and prosperous 2024 for us all. ■

**BOB CAPUTO, CFPS**  
AFSA PRESIDENT





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# FLASHPOINT

The sprinkler industry is similar to many trades with regard to the “dumbing down” of our employees. While I do not state this with a mean intent, I do want us to realize what we are doing. Understanding the issue will help us to adjust our approach and ensure our employees become skilled craftspeople.

## SPRINKLER FITTER

Let's first look at the sprinkler fitter. Years ago, most piping connections were threaded or flanged. Grooved connections were rare. Properly making up a 6-in. threaded or flanged connection took real skill. While grooved connections do require some skill, it is not the same as before. Grooved sprinklers are becoming widely used, along with flexible sprinkler hoses. Sammy®-type attachments have replaced a coach screw, wraparound, eye clips, and similar attachments. When was the last time you ordered or installed a dry pipe, preaction, or deluge valve that was not pre-trimmed or fully assembled and ready to install from the manufacturer? Have you ordered or installed a valve cabinet manufactured with all the equipment already in place, including the trim and alarm/supervisory components already wired and fully tested by the manufacturer?

While I think we can understand why the industry has moved forward with these newer products, it is still important to train the sprinkler fitter on the proper methods of installation for each system component and the limitations of their Listings. Labor savings usually justify the increase in material cost. But are we training the next generation to understand and service this equipment? For example, take a sprinkler fitter with five years of experience in installing new dry pipe, preaction, and deluge systems that were ordered preassembled. A service call is received involving a preaction valve that has an internal issue. Does the fitter have the knowledge to troubleshoot the valve? Without proper training, the answer is likely no, they do not.

## LAYOUT TECHNICIAN

Computer automation has brought big changes to the layout process. Today, there are very few sprinkler systems designed without some type of design software. The software might be 2D, 3D, or even 4D, but drawing by hand is becoming a lost skill, similar to our grade schools teaching cursive writing, which was halted in many districts but then returned to the curriculum when it was discovered that students could no longer sign their names to legal documents or read handwritten notes in the real world. Basic skills are essential.

Computer-generated hydraulic calculations have become routine and, in most cases, require little skill to produce acceptable results. While computer programs do make the process easier at a reduced cost, are we producing layout technicians who understand the basics of layout and hydraulic calculations? For the most part, no! NICET and similar certification agencies tell us most candidates struggle with hydraulic calculations and more complex system layouts. Many layout technicians do not under-

stand what the layout software is doing. This leads to a technician guessing how to make a system work hydraulically instead of being able to look at a piping network and know what to change. This is critical as the layout technician is responsible for ensuring that a system complies with the project requirements and NFPA 13, *Standard for the Installation of Sprinkler Systems*. The layout technician is also responsible for designing a system that is cost-effective for the contractor to install.

In the past, creating a fabrication list meant taking the time to ensure all material was fabricated correctly. Today, pushing a few buttons on the keyboard can generate a fabrication list that is usually accurate as long as the layout is correct. This is a valuable timesaver, but it will not help when a designer is faced with trying to figure out where an entire list may have gone wrong due to a simple input error.

## ITM TECHNICIANS

Computer-generated documentation software and checklists have greatly increased the speed, completeness, and accuracy of inspections. The transition from handwritten inspection reports to electronic checklists is inevitable. However, we need to ensure that the ITM technician understands what the box they are checking means and, more importantly, knows what it does not mean. Proper documentation is critical in ITM work.

## PROJECT MANAGERS

The role of a project manager is not an easy one but is essential to ensuring a project is successful both from the client and the company perspectives. Specific company and commercial computer software can assist the project manager in their role. While this makes an experienced project manager more efficient and accurate, it does little to train the next generation of project managers in what is important.

## SUMMARY

So, what should you do? While we should embrace labor-saving and cost-effective improvements in our industry, reliance on technology can result in the loss of valuable skills. Less experienced employees need a good foundation to succeed in the industry. More experienced employees can benefit from continuing education or cross-training. AFSA trains sprinkler fitters, layout technicians, ITM technicians, and project managers from the ground up. Let us assist you with developing and maintaining the very best industry professionals. ■



**JOHN AUGUST DENHARDT, P.E., FSPPE**  
AFSA VICE PRESIDENT OF ENGINEERING  
& TECHNICAL SERVICES

# DON'T PLAY WITH FIRE

Join AFSA and Get the Help You Need



## FACILITY MANAGERS

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# COTICCHIO WINS NAC

## FIRE SPRINKLER FITTER TAKES FIRST PLACE AT AFSA'S 30TH ANNUAL NATIONAL APPRENTICE COMPETITION

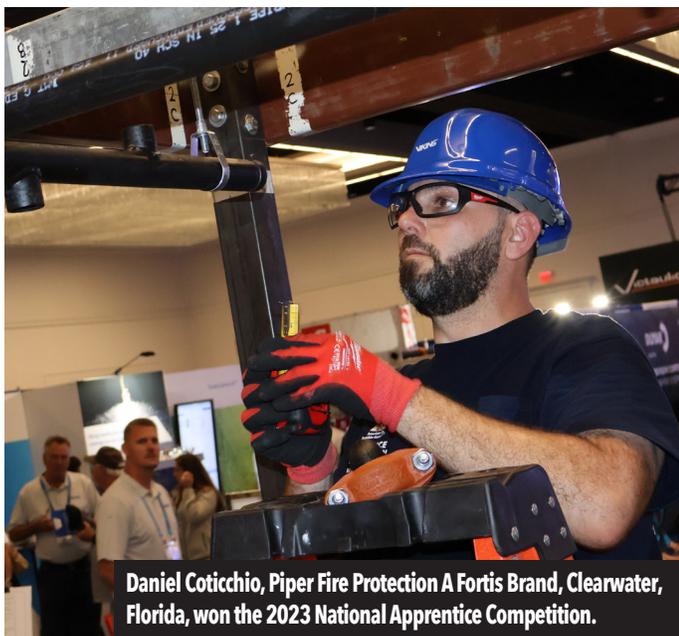
**D'ARCY MONTALVO** | AMERICAN FIRE SPRINKLER ASSOCIATION

**T**he 30th Annual National Apprentice Competition (NAC) at the American Fire Sprinkler Association's AFSA42: Convention, Exhibition & Apprentice Competition in Orlando, Fla., Sept. 6-9, 2023, showcased top apprentice talent in the fire sprinkler industry. Spectators gathered in the middle of the sold-out exhibit hall to observe as the apprentices constructed and pressure-tested a mini fire sprinkler system. Daniel Coticchio, Piper Fire Protection A Fortis Brand, Clearwater, Fla., won first place at this year's competition and a cash prize of \$5,000.

"Daniel is the first member of our Piper/Fortis family to win a gold medal in both ABC and AFSA's national apprenticeship competitions," comments AFSA At-Large Director Chris Johnson, president/co-founder of Piper/Fortis. "We love to celebrate along with our team as we honestly do think of our teammates as our extended family."

### THE ROAD TO ORLANDO

Coticchio entered the fire sprinkler industry when friends who worked at Piper Fire Protection told him there was a job opening. "I decided to give it a shot, and it has worked well for me. I love to work with my hands and create something. It also brings me joy. I help prevent fires and save lives."



**Daniel Coticchio, Piper Fire Protection A Fortis Brand, Clearwater, Florida, won the 2023 National Apprentice Competition.**

Using AFSA and its local ABC chapter apprentice training materials, Piper/Fortis has supported its apprentices with education and training. "Piper/Fortis has created an environment that honors the tradition of apprenticeship and how integral these programs are to turning out some of the best fitters in our industry," notes Johnson.

Early last year, Coticchio decided to enter the ABC National Craft Championships. At the time, he was in his fourth year as a fire sprinkler apprentice. "Piper/Fortis always talked about the competitions throughout our training," remembers Coticchio. "I appreciate a challenge, so the ABC competition was right up my alley, and I knew it would be worth the experience. I had an idea I would be a finalist, but I competed with many skilled apprentices, so nothing was for sure."

Coticchio walked away with the highest honor of the competition—a gold medal. "It was exciting to hear my name called," he recounts.

Coticchio says he appreciates the AFSA and ABC competitions because they give apprentices a chance to challenge themselves and showcase their accumulated skills. "When it came time to apply for the AFSA competition, I decided to enter that one, too."

Coticchio reviewed all his study material, had the experience from competing at ABC, practiced on a mock set-up at Piper/Fortis, and decided he was ready to compete.

### NAC CELEBRATES 30 YEARS

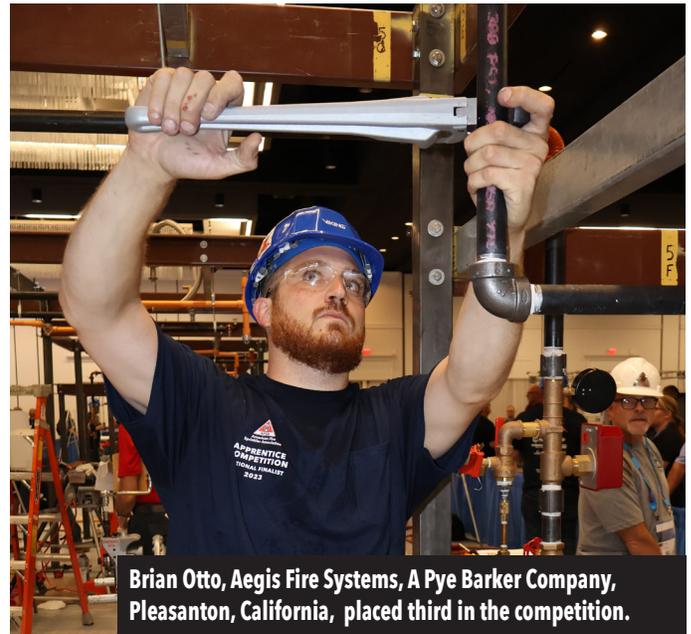
AFSA's NAC celebrated 30 years in 2023—three decades of showcasing apprentices. The competition is divided into two phases. Phase 1 consists of a 100-question multiple-choice exam provided by AFSA. The test is proctored online, making it accessible to contestants in all 50 states. The top seven scoring apprentices in the Phase 1 exam received expense-paid trips to compete in Phase 2 of the national competition, held during AFSA42.

In Phase 2, participants took another, more thorough written examination and installed a steel and CPVC sprinkler system with pendent and sidewall heads. The systems were pressure-tested, and participants were graded on accuracy, craftsmanship, and safety. The installation portion was held in the middle of the exhibit hall on the convention's final day.

"I felt good after the written exam," remembers Coticchio. "I was a little nervous, but you kind of get over that." He adds, "I think the written test was more nerve-racking than the build."



**Andrew Lynch, Johnson Controls, Colorado Springs, Colorado, placed second during the competition.**



**Brian Otto, Aegis Fire Systems, A Pye Barker Company, Pleasanton, California, placed third in the competition.**

During the installation portion of the competition, Coticchio remained focused on the task at hand and worked to block out the other competitors and the hustle and bustle of the exhibit hall.

“I felt pretty good about the installation,” says Coticchio. “I finished on time, and my pressure test was good, but I didn’t know if I’d done enough to win.”

### **A LASTING LEGACY**

The National Apprenticeship Competition was started in 1994 by the late Robert L. (Bob) McCullough, then chair of AFSA’s Apprenticeship & Education Committee and president of Allsouth Sprinkler Company. The company continues to sponsor the competition and recently celebrated its 50th anniversary with a \$10,000 donation to the 2023 competition.

The competition was created to promote apprentice training and recognize the apprentices actively enrolled in the AFSA apprenticeship program. It continues to bring fire sprinkler apprentices from AFSA local chapters and member training programs from all corners of the United States together in the association’s foremost showcase of excellence in training among future industry leaders.

In 1994, the first-ever NAC occurred at AFSA’s 13th Annual Convention and Exhibition in Fort Lauderdale, Fla. “Originally, AFSA was developed for apprenticeship training. It is the backbone of the association. This competition will focus the spotlight where it should be—back onto our highly rated training programs,” stated McCullough to *Sprinkler Age* in September of that year. “I believe the contractors who watch will take back the message to their company that training is vital to our industry. More than at any other time in our history, we need properly trained workers.”

### **AWARD-WINNING PARTY**

The evening of the competition, AFSA’s “Magic and Illusions” Awards Party took place in the Floridian Ballroom at the Signia by Hilton Orlando Bonnet Creek. The event featured a lavish buffet, acrobats, stilt walkers, an illusionist, a magician, and

a DJ, but the highlight of the evening was the announcement of apprentice competition winners.

“I’m always nervous,” says Coticchio, “but once they said second place, I kind of knew.”

Coticchio said he felt a sense of accomplishment and relief after hearing his name called the first-place winner, “It felt good to win. Piper/Fortis is enthusiastic about giving us opportunities and supporting our learning. I felt proud to represent them.”

He continues, “All the competitors were outstanding. I think everyone who competed did a great job. It was fun getting to know them.”

When asked what he’s been doing since the competition, Coticchio said he’s graduated from the apprentice training program and is working on projects. “I will continue to work hard, help my co-workers, and encourage our apprentices to enter this competition.”

Mike Curinga, project manager at Piper/Fortis, is Coticchio’s supervisor and was his instructor for two years. “I’ve been an instructor for five years and try to promote the competition to all our guys. Dan jumped in and was eager to compete. He’s a good team member and a hard worker who gives 100 percent.”

Now that Coticchio has graduated from the apprentice program, Curinga notes that he helps train other apprentices. “Everyone works as a team, and Dan is a great team member.”

Curinga admits he was nervous when watching the competition but noticed Coticchio was calm. When Coticchio was announced as the winner, he also admitted to celebrating. “I was out there screaming and hollering, ‘Get it, Dan!’ It was just great to see him win.”

For the remaining finalists, Andrew Lynch, Johnson Controls, Colorado Springs, Colo., won second place and a \$3,000 cash prize. Brian Otto, Aegis Fire Systems, A Pye Barker Company, Pleasanton, California, took home third place along with a cash prize of \$2,000. Honorable mentions and \$1,000 cash prizes were awarded to Samuel Callison, Titan Fire Protection Inc., Vista, California; Matthew Comp, Diamond Automatic Sprinklers, Inc., Mt. Holly Springs, Pennsylvania; Timothy Farley, Allied Fire



**Honorable Mention Winner Samuel Callison, Titan Fire Protection Inc., Vista, California.**



**Honorable Mention Winner Matthew Comp, Diamond Automatic Sprinklers, Inc., Mt. Holly Springs, Pennsylvania.**

Protection, Fargo, North Dakota; Armonie Jones, Aqueduct Fire Protection Systems, Williamstown, New Jersey. All competition winners also received a commemorative award and tools.

In addition to the cash prizes and an expense-paid trip to Orlando to compete at AFSA42, each of the national finalists received a commemorative plaque, tools, and a complimentary convention registration for their employer to attend the convention.

### THANK YOU!

Tools, materials and support for this year's competition were provided by 360 Fire Protection; AFSA Florida Chapter; Acom Fire Solutions; Allied Fire Protection; Allsouth Sprinkler Company; Alwest Fire Protection; American Fire Systems, Inc.; ARGCO; Atlantic Constructors, Inc.; Bamford Fire Sprinkler Co.; BlazeMaster Fire Protection Systems (Lubrizol); Brecco Distribution Corporation; Brendle Sprinkler Co., LLC; Carolina Fire Protection, Inc.; Coastal Fire Design, LLC; Core & Main Fire Protection; Diamond Automatic Sprinklers, Inc.; ETNA Supply; Ferguson Fire & Fabrication; Fire Tech Productions; Fire Tech Services, Inc.; Fire Tech Systems,

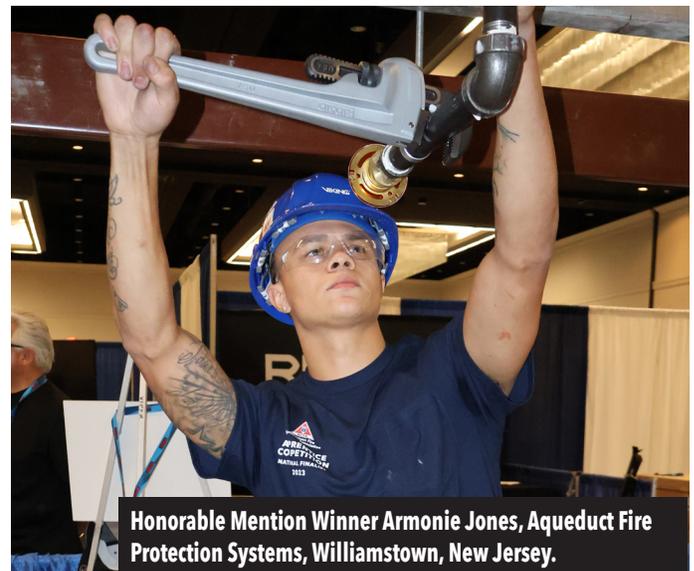
Inc.; Fortis Fire & Safety; Foothill Fire Protection, Inc.; Foster Engineering & Consulting; Hampshire Fire Protection Co.; Impact Fire Services; Merit Sprinkler Co., Inc.; Milwaukee Valve Co., Inc.; Pace Machinery Group; Professional Fire Systems, Inc.; Pye Barker Fire & Safety; Quick Response Fire Protection; Reliable Automatic Sprinkler Co.; Ridge Tool Co. (Emerson); RIGID; S & L Fire Protection; SJR Fire, LLC; Security Fire Sprinkler (J-Berd Mech); Sentry Fire Protection Co.; Shore Point Fire Protection; Titan Fire Protection; VSC Fire & Security; Victaulic; Viking Group, Inc.; Viper Tradeshow Services; Umpire Technologies Group, Inc.; Trio Fire Systems; and Western Fire Protection, Inc.

### GOT WHAT IT TAKES?

Enrolling in AFSA's apprentice training program offers excellent education and a fulfilling career and is the gateway to competing in the NAC. Entry forms for this year's event at AFSA43: Convention, Exhibition & Apprentice Competition at the Gaylord Rockies Resort & Convention Center in Denver, September 18-21, will be available soon. For more details, visit [www.firesprinkler.org/competition/](http://www.firesprinkler.org/competition/). ■



**Honorable Mention Winner Timothy Farley, Allied Fire Protection, Fargo, North Dakota.**



**Honorable Mention Winner Armonie Jones, Aqueduct Fire Protection Systems, Williamstown, New Jersey.**

# APPRENTICES ENTER TO WIN

UP TO \$5,000 CASH

A SET OF NEW HAND TOOLS

AN EXPENSE-PAID TRIP

FOR YOU AND A GUEST



**AFSA  
National  
Apprentice  
Competition**

Seven national finalists will receive an expense-paid trip to compete at AFSA's National Convention, Exhibition and Apprentice Competition in Denver, Colorado, and a complimentary convention registration for a guest (to be determined by their employer), plus tools, and cash prizes. Employers may enter as many qualifying apprentices as you want! **There is no cost to enter the competition.**



For more details visit  
[www.firesprinkler.org/competition](http://www.firesprinkler.org/competition)



**American Fire  
Sprinkler Association**

# IN MEMORIAM: JOE HEINRICH

## DEDICATED INDUSTRY VETERAN SUPPORTED THE NEXT GENERATION

**M**embers and staff of the American Fire Sprinkler Association (AFSA) were saddened to learn that Past AFSA Chair of the Board, Joe Heinrich, Bamford Fire Sprinkler Company, Salina, Kan., passed away peacefully in his home on Nov. 23, 2023, after a private battle with cancer. He is survived by his wife, Kathleen, sons Bryan (Katie) Heinrich and Brett (Trina) Heinrich, daughter Andrea (Brandon) Van Meter, and brother Paul (Janet) Heinrich. He has seven grandchildren who were his pride and joy: Ben Heinrich, Isaac Van Meter, Reese Heinrich, Jacob Van Meter, Madilyn Heinrich, Zoey Van Meter, and Gabriella Heinrich, as well as many nieces and nephews.

“Joe Heinrich exemplified what it means to be a true family man, community leader, and industry advocate,” says AFSA President Bob Caputo, CFPS. “His love of baseball and his Nebraska Cornhuskers were surpassed only by his love of family and for the fire sprinkler industry and his many friends within the AFSA community. Joe encouraged and inspired everyone he met. Always a kind word, Joe was the kind of man who inspired others to be like him, though few achieved the goal.”

### MAKING AN IMPACT ON THE INDUSTRY

Heinrich began working in the fire sprinkler industry at Bamford, Inc., until relocating to Salina, Kan., in 1976. Here, he and Kathy started Bamford Fire Sprinkler Company with humble beginnings out of their home, eventually expanding to Shawnee Mission, Kan.

Heinrich became involved in AFSA in 1982, serving on multiple committees, including the Bylaws, Legislative, and Contractors Support & Advisory committees. He was actively involved in updates of the apprentice training modules and served as a judge for the National Apprentice Competition for several years. In addition to his AFSA involvement, Heinrich was a longtime member of Associated Builders and Contractors (ABC) and served a term as president of its Kansas Sunflower Chapter.

Heinrich was elected to the AFSA Board of Directors 2003-2019 and served as Chair of the Board 2013-2015. During his tenure, Heinrich demonstrated leadership with integrity that included the vision and inception of the NextGen Initiative. He made many dear, life-long friends and remained actively involved in Board meetings following his time as Chair.

“My dad knew no strangers and made friends everywhere he went,” comments Brett Heinrich. “He left a lasting impression on so



Past AFSA Chair of the Board Joe Heinrich was a dedicated industry and AFSA veteran.

many with his huge heart, authenticity, integrity, and generosity. We knew him best for always doing what was right and honorable with humility and good cheer. Up to the end, he maintained his sense of humor, catching us off-guard at times with a well-timed wisecrack.”

He continues, “On behalf of our family, I extend our deepest gratitude for all the calls, prayers, visits, meals, cards, and well-wishes provided to our family. Your love, kindness, and generosity are genuinely appreciated and have touched our hearts during Joe’s illness and final days.”

### CONNECTING WITH THE NEXT GENERATION

One of Heinrich’s many contributions to the industry was the creation of AFSA’s NextGen Initiative. While serving on the Board, he had been forming the idea that the industry needed to search for the next cohort of management. During a committee meeting, Meaghan Wills [Anchor Fire Protection Co., Perkiomenville, Pennsylvania] made a comment that resonated with him and solidified what he had been considering. In one of his 2016 *Sprinkler Age* columns, Heinrich noted, “It was time to begin searching for and developing the next generation of leadership. And not just for AFSA but the fire sprinkler industry in general. A relatively short time later, after much deliberation and discussion regarding avenues to pursue this initiative, I approached Meaghan about leading a group of her peers in gathering ideas and

developing a structure for this initiative. Meaghen did not hesitate to accept the challenge, and the rest is, as we always say, history.”

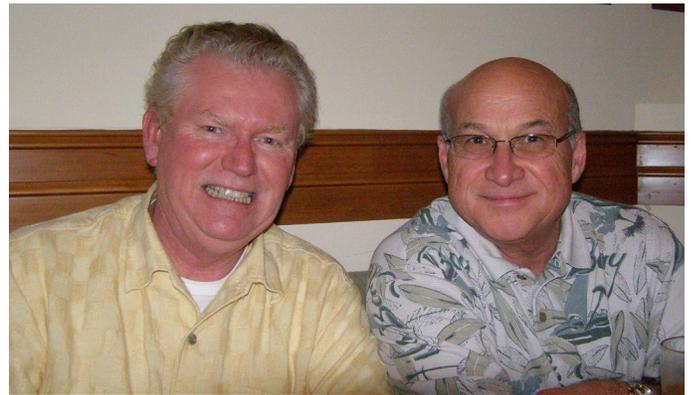
Wills remembers that time well. “In 2014, Joe approached me at my second national committee meeting about starting a group to get more young people involved in the industry,” comments Wills, a past AFSA NextGen Chair. “I excitedly accepted without realizing the challenges in front of me. Through the first couple of years, there was endless pushback, opinions, negative feedback, etc., but Joe encouraged me to carry through with my ideas.”

She continues, “Joe saw the drive and determination in me that some others were skeptical about. Through his leadership and support, AFSA’s National NextGen Initiative has grown beyond expectations. It’s because of his idea that the fire sprinkler industry and AFSA have more young people involved. I’m forever grateful for Joe’s encouragement throughout my career. He is going to be very sorely missed.”

### ENSURING A FUTURE FOR THE INDUSTRY

In his last *Sprinkler Age* column as Chair, Heinrich noted, “By far, my greatest satisfaction has come from the appointment of several entirely new members to our committees during my initial year. New faces and personalities from both the contractor community and the M/S [Manufacturer/Supplier] community. They immediately provided fresh input, ideas, and enthusiasm.”

It was evident through Heinrich’s work that he valued the infusion of new blood and young professionals into the



**Bill Phair (left) and Heinrich were both dedicated to supporting and advancing the next generation and growing the fire protection industry.**

industry, as noticed by AFSA Chair of the Board Linda Biernacki, president of Fire Tech Systems, Inc., Shreveport, Louisiana.

“Having worked with the NextGen Initiative members for many years, I can truly appreciate all Joe did to bring together the younger members of our industry,” comments Biernacki. “His work lives on through our NextGen members who will build upon his legacy to help ensure the future success of our industry.”

A memorial service was held on Nov. 25, 2023, at Redeemer Lutheran Church in Salina, followed by an interment and celebration of life. To view Heinrich’s complete obituary, visit [www.ryanmortuary.com/obituary/Joseph-Heinrich/](http://www.ryanmortuary.com/obituary/Joseph-Heinrich/). ■

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# INDUSTRY OUTLOOK FOR 2024

## ANOTHER YEAR OF CAUTIOUS OPTIMISM

D'ARCY MONTALVO | AMERICAN FIRE SPRINKLER ASSOCIATION

**W**ith the books closed on 2023 and as 2024 begins, what lies in store for the fire protection industry? The hopefulness going into last year seems to have come to fruition, with projects appearing to be steady in most regions of the country for 2023. Going into the New Year, members surveyed are optimistic that business will remain good. In this article, professional forecasters and members of the American Fire Sprinkler Association (AFSA) weigh in on 2023 and forecast the year ahead. Additional construction forecast reports can be obtained at [enr.com](https://enr.com) and [constructionexec.com](https://constructionexec.com).

### DODGE CONSTRUCTION REPORTS

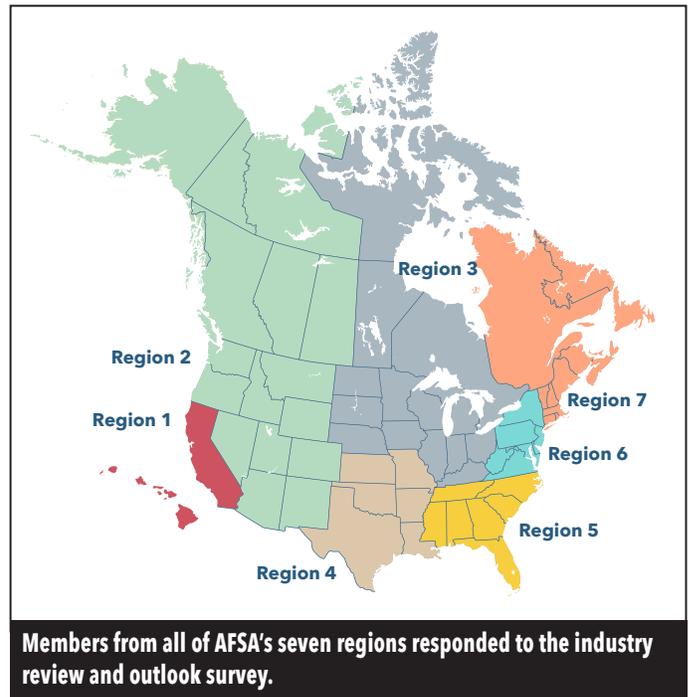
Annual reports detailed in *Engineering-News Record* (Nov. 27/Dec. 4, 2023) include Dodge Construction, which predicts overall construction starts are expected to rise 7 percent in 2024, following a 1 percent increase last year. The 2023 boost will bring total starts to \$1.124 trillion, with \$1.205 trillion forecast for 2024.

For residential construction starts, Dodge expects the total dollar value of residential starts for 2023 to end down 13 percent before rising 11 percent in 2024. Single-family starts are down 16 percent in 2023, with a predicted increase of 9 percent this year. Multifamily starts are forecasted to end down 8 percent in 2023, with a rebound of 14 percent this year.

The commercial sector (stores, offices, warehouses, hotels, and parking) is expected to be down 6 percent for 2023, with a 2 percent decrease in 2024. Dodge forecasts warehouse starts will end in 2023, down 18 percent, followed by an additional 11 percent in 2024. Hotel starts are down 5 percent for 2023 but will increase 16 percent this year. Office starts are expected to decline slightly (2 percent) in 2024 after two years of growth (30 percent in 2022 and 5 percent in 2023). Data centers are expected to have “excessive growth” in 2023 and 2024.

### FMI CORP. FORECAST

FMI Corp. is forecasting construction put-in-place for 2023 to increase 4.6 percent in the dollar value of total construction in 2023, with a slight decrease of 0.2 percent in



2024. The forecast for the residential market is down 5.7 percent for 2023 and should fall another 7.1 percent in 2024. Commercial work was up 6.4 percent in 2023 but should fall 8.9 percent this year. Health care should increase by 9.4 percent in 2023 and continue to grow with a 5.6 percent increase this year.

### RESIDENTIAL REPORT

The National Association of Home Builders (NAHB) estimates total housing starts will fall 11 percent in 2023 and another 3.4 percent in 2024. Single-family work is expected to fall 9.2 percent last year and rise 3.7 percent this year. Multifamily will show a decline in 2023 of 14.6 percent and a 17.3 percent decrease this year.

### REGIONAL REPORTS

For insight into the fire sprinkler industry last year and what's expected for 2024, *Sprinkler Age* surveyed members throughout the country and compiled some of their comments here.

**Overview**—The consensus in almost every one of AFSA’s seven regions was that 2023 was a good year, and the same is expected for 2024.

“We had great, constant work,” reports Michael Rodriguez with Brennan Fire & Security in Santa Fe Springs, Calif. “We expect even more work for next year.”

“Business has picked up considerably,” says Todd Lawson, Protex Fire, Inc., Chattanooga, Tenn. “I contracted several large projects in the third quarter of 2023 that will be far enough along in the spring/summer of 2024 to ensure a good/busy year.”

Some did see some slower activity in 2023. “Last year started slow for us, but we rallied in the second half of the year and substantially exceeded our expectations,” notes Justin Smith, Ironsmith Fire, LLC, Collierville, Tenn. “We are strongly optimistic that 2024 will continue that momentum. Our revenue forecast, based on our current work in progress and negotiations on upcoming projects, is showing substantial growth in 2024.”

“Last year was steady but slowed in the winter,” comments Michael Evans, Johnson Controls, Inc., Oklahoma City, Okla. “But 2024 looks to be steady and promising.”

In Florida, business was “good” for Sun State Fire Sprinkler Co. in DeBary. “I believe it will continue to be good here,” says Wayne Wilhelm.

In South Carolina, Jeremy Harvey with Impact Fire Services in Greenville says 2023 was “good,” and 2024 looks “good as far as I can tell.”

Bernie Parsons with Wayne Automatic Fire Sprinklers, Inc., Concord, N.C. Reports business was “very good” in 2023 and looks “strong” going into 2024.

**Potential Challenges**—It seems the same problems continue to plague the industry, including manpower shortages, lack of trained professionals, and COVID.

“COVID is still a factor; employees still need to be protected and take precautions when visiting job sites,” says Rodriguez.

“Licensed technicians are hard to find,” comments Evans.

“A shortage of manpower will be an issue this year,” says Wilhelm. Harvey and Parsons say the same.

**NFPA 13D Installations**—Most of California saw an increase in NFPA 13D, *Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes*, installations in 2023. Other areas of the country reported the same activity level in this area, including Regions 2, 4, and 5. Some members reported a decline in Region 6. Many members responding do not perform this type of work.

**Retrofit Work**—Most survey respondents reported an uptick in retrofit work in 2023, including members in Arizona, California, Florida, Tennessee, and Pennsylvania. However, other members in California also reported the same amount of work or even a decrease. South Carolina also reported a decrease. Members in Arizona, Louisiana, Okla-



homa, North Carolina, and Tennessee stated that retrofit work remained the same as in the previous year.

**ITM**—Many of the survey respondents this year perform inspection, testing, and maintenance (ITM) per NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*. Respondents in Arkansas, Arizona, California, Colorado, Massachusetts, Minnesota, and Oklahoma saw increases in the amount of work in 2023.

“We are constantly busy in that department,” reports Rodriguez. “The business is constantly going and growing, due in big part to the demand for keeping up with inspection, testing and maintenance.”

Several responding members are looking to enter the ITM arena or increase their ITM work. “We are intentional about growing our NFPA 25 work, so we anticipate an increase in 2024,” states Smith.

“This is an area that I want to expand into,” says Lawson.

**Residential Sprinkler Activity**—Increases in residential activity were seen in Arizona, California, Florida, Massachusetts, North Carolina, Oklahoma, and Tennessee last year.

“Many apartments are going up due to the high demand in living spaces,” says Rodriguez.

“In Tennessee, it seems that multifamily is on the rise,” comments Smith.

“We have a couple of counties in our area [Concord, N.C.] that are starting to require NFPA 13D systems based on how many lots and entrances they have planned,” says Parsons.

## MOVING FORWARD

AFSA is here to help members do more in 2024! With existing programs that have proven results and new offerings developed in response to requests, AFSA strives to help members achieve the goals they’ve set for their businesses. Programming includes new ITM workshops tailored to students from beginners to advanced, continuing with the Design School Scholarship program for category 1-3 Contractor members, and launching a pilot project to discover new talent and introduce them to the fire sprinkler industry. This issue of *Sprinkler Age* has information on 2024 training for fire sprinkler apprentices, ITM inspectors and technicians, and sprinkler system designers. For more details and to register for classes, visit [firesprinkler.org](https://firesprinkler.org), email [training@firesprinkler.org](mailto:training@firesprinkler.org), or call (214) 349-5965. ■

# AGC AND SAGE RELEASE 2024 OUTLOOK

## EXPECTATIONS FOR DEMAND REMAIN MOSTLY POSITIVE, BUT LESS UPBEAT THAN LAST YEAR AMID NEW CHALLENGES

**C**onstruction contractors have a decidedly mixed outlook for 2024 as firms predict transitions in demand for projects, the types of challenges they will face, and the technologies, including artificial intelligence, they will embrace, according to survey results released by the Associated General Contractors of America (AGC) and Sage. Amid these changes, contractors are struggling to cope with significant labor shortages, the impacts of higher interest rates and input costs, and a supply chain that, while better, is still far from normal, according to “A Construction Market in Transition: The 2024 Construction Hiring and Business Outlook.”

“2024 offers a mixed bag for construction contractors: on one hand, demand for many types of projects should continue to expand and firms will continue to invest in the tools they need to be more efficient,” said Stephen E. Sandherr, the association’s chief executive officer. “Meanwhile, they face significant challenges when it comes to finding workers, coping with rising costs and weathering the impacts of higher interest rates.”

The net reading—the percentage of respondents who expect the available dollar value of projects to expand compared to the percentage who expect it to shrink—is positive for 14 of the 17 categories of construction included in the survey, as it was in 2023. However, a smaller share than previously expects the markets they compete in to expand in the coming year. The net reading decreased from the 2023 survey for nine project types, increased for six types, and remained unchanged for two.

The highest net positive reading in the 2024 survey—32 percent—is for water and sewer construction. That category nosed out last year’s leading segments, highway and bridge construction and transportation projects such as transit, rail, and airports. And the net reading for federal projects is 29 percent. The highest expectation among predominantly private-sector categories is for power projects, with a net reading of 25 percent. Close behind are the readings for hospital construction, with a net of 23 percent, and non-hospital healthcare facilities, such as clinics and medical labs, with a net of 22 percent.

The largest increase in optimism from the previous survey is for data center construction, with a net positive reading of 20 percent. That is up from 12 percent a year ago. Contractors are optimistic, as well, about the education sector. The net reading is 18 percent for kindergarten-to-12th-grade schools and 15 percent for higher education construction. The net reading for both public buildings and manufacturing construction is 15 percent. The net is 10 percent for warehouses.

There are four market segments for which respondents are closely divided between favorable and unfavorable outlooks or have negative expectations on balance. There is a net positive reading of 4 percent for multifamily residential construction. Expectations are bearish for lodging, with a net negative reading of -3 percent; retail construction, -15 percent; and private office construction, -24 percent.

“On balance, contractors remain upbeat about the available dollar value of projects to bid on in 2024. But the

optimism regarding opportunities for most project types is less widespread than it was a year ago,” said Ken Simonson, the association’s chief economist.

Simonson noted that more than two-thirds (69 percent) of the respondents expect to add to their headcount, compared to only 10 percent who expect a decrease. While just under half (47 percent) of firms expect to increase their headcount by 10 percent or less, nearly one-quarter anticipate larger increases.

However, 77 percent of respondents report they are having a hard time filling some or all salaried or hourly craft positions. The majority (55 percent) expects that hiring will continue to be hard (35 percent) or will become harder (20 percent).

Most firms took steps in 2023 to attract and retain workers. Sixty-three percent increased base pay rates more than in 2022. Additionally, 25 percent of firms provided incentives or bonuses and 24 percent of the firms increased their portion of benefit contributions and/or improved employee benefits.

As in the past two surveys, nearly two-thirds of respondents say projects have been postponed or canceled. Almost equal percentages of firms report projects were postponed or canceled in 2023 and not rescheduled (36 percent of respondents) as report projects were postponed but rescheduled (37 percent). Ten percent have already experienced postponement or cancellation of a project that had been scheduled for the first half of 2024.

Only 23 percent of respondents say they have not had any significant supply-chain problems. However, 64 percent noted that rising interest rates or financing costs are

one of their biggest concerns for 2024, while 63 percent listed insufficient supply of workers or subcontractors and 62 percent are worried about the likelihood of an economic slowdown/recession. In addition, 58 percent listed rising direct labor costs (pay, benefits, employer taxes), while 56 percent pick worker quality and 54 percent list materials costs as major concerns for the year.

Officials with Sage noted that construction firms have been seeking ways of adapting to the shortage of skilled workers and improving jobsite safety and productivity. Nearly 40 percent of firms say they will either increase their investment in drones (26 percent) or make an initial investment (14 percent). Thirty percent of firms will make an initial investment in artificial intelligence (19 percent) or increase their investment (11 percent). And almost 30 percent plan to make more use of offsite production (21 percent) or start to (9 percent).

“Technology has played an instrumental role in helping construction firms build more efficiently while navigating current challenges,” said Dustin Stephens, vice president of Construction and Real Estate, Sage. “In this era of digital transformation, technology serves as a cornerstone for sustained growth and success.”

Stephens added that nearly all firms plan to increase or keep level their investment in software. The most likely candidates for increased software spending are accounting software and project management software—for each type, 38 percent of respondents expect to increase their investment. Close behind is document management software, cited by 36 percent of firms. Thirty-one percent plan to increase spending on estimating software.

Association officials said that many of the challenges contractors are facing depend on the actions of public officials to address. If the Biden administration were to act on Congressionally mandated permitting reforms, many more infrastructure and construction projects would start this year, countering the small impact those investments have had to date. And if public officials would narrow the five-to-one funding gap between college-prep programs and career and technical education, more students would

be exposed to construction and would likely pursue careers in the field.

“We will continue to urge the Biden administration to implement mandated reforms to the federal review and permitting process and otherwise ensure that the federal government no longer serves as the biggest obstacle to its own construction investments,” said Sandherr. He added that the association will be pushing for new funding for construction education and training programs as part of both the Workforce and Innovation Opportunity Act and the Pell

Grant reauthorization legislation that are expected this year in Congress as well as immigration reforms. “We are committed to working with policy makers and our members to make sure the conditions are right for firms to be successful in their efforts to improve the nation’s infrastructure, modernize manufacturing and build an even stronger economy,” Sandherr added.

To read more details about the report, visit [www.agc.org/news/2024/01/04/2024-construction-hiring-and-business-outlook/](http://www.agc.org/news/2024/01/04/2024-construction-hiring-and-business-outlook/). ■

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# NEW, COMPREHENSIVE ITM TRAINING

## THREE COURSES ADDED TO CURRICULUM

CLARISSA RIOS | AMERICAN FIRE SPRINKLER ASSOCIATION

**N**ewly designed training courses have been developed to kick off the American Fire Sprinkler Association's (AFSA) new year! With its popular educational webinars, training workshops, and maintenance programs, AFSA is a well-known training expert within the fire sprinkler industry. There are three new ITM courses, each having a few sessions throughout the year. Early bird pricing is also available for individuals who enroll early for a discount on regular registration costs. These courses target all experience levels of technicians, inspectors, Authority Having Jurisdictions (AHJs), and facility managers.

AFSA continues to propel forward by keeping all industry players first in mind. "A large part of the AFSA mission is to educate and train our industry," says AFSA President Bob Caputo, CFPS. "While the original focus was on our sprinkler fitter apprenticeship program, AFSA has morphed into what we think resembles a community college more than a traditional trade association."

### BEGINNING ITM WORKSHOP

Become an expert on essential procedures and best practices for proper functioning and reliability of sprinkler systems based on NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*. This workshop will provide further knowledge on codes, standards, and all parties involved in inspections and testing. In this training, participants will detect potential issues, conduct inspections and tests, complete routine maintenance tasks, and compare components of various water-based fire protection systems.

The Beginning ITM Workshop is offered on March 18-19, May 6-7, July 8-9, and Nov. 6-7. Upon course completion, participants earn 16 CPDs, 1.6 CEUs, and 16 contact hours.

### INTERMEDIATE ITM WORKSHOP

This intermediate-level course will perform water flow tests on service mains and standpipes, collect and analyze results, and perfect participants' knowledge in determining frequencies and procedures for inspection and testing. This



AFSA's Beginning ITM Workshop provides essential procedures and best practices for proper functioning and reliability of sprinkler systems based on NFPA 25.

training explores advanced topics such as component differentiation, sequence of operations, and specific considerations for deluge and preaction systems. Individuals will gain a deeper understanding of inspection, testing, and maintenance procedures through certification test-taking strategies, in-depth knowledge of 3- and 5-year ITM, and hands-on troubleshooting exercises.

The Intermediate ITM Workshop is offered on April 15-17, July 10-12, Aug. 21-23, and Nov. 13-15. Upon course completion, participants earn 24 CPDs, 2.4 CEUs, and 24 contact hours.

### FIRE PUMP ITM WORKSHOP

Develop knowledge of fire pump installations and essential ITM processes. This workshop will discuss key differences between diesel- and electric-driven fire pumps and present various water flow tests. AFSA provides hands-on performances of no-flow and full-flow fire pump tests and educates on ITM requirements for water storage tanks. Participants will also interact with energy diffuser selection, data acquisition, supply graphing, and data interpretation to provide an understanding of stationary fire pumps.

The Fire Pump ITM Workshop is offered seven times this year: March 20-21, April 18-19, May 8-9, July 23-24,



**In AFSA's Intermediate ITM Workshop, students will perform flow tests on service mains and standpipes.**



**Students will develop their knowledge of fire pump installations and essential ITM processes in AFSA's Fire Pump ITM Workshop.**

Aug. 19-20, Sept. 2-6, and Nov. 19-20. Upon course completion, participants earn 16 CPDs, 1.6 CEUs, and 16 contact hours.

### **ITM INSPECTOR DEVELOPMENT PROGRAM**

In addition to the new ITM courses, AFSA continues offering its popular ITM Inspector Development Program. This program is for those looking to grow their fire sprinkler business or for opportunities to advance their career. This 20-month program includes a portfolio of learning approaches, from hands-on field training and inspections to live web sessions, on-demand courses, on-the-job demonstrations, and in-class lectures. Industry experts teaching the courses provide their insight and mentorship to all students. AFSA also implements essential tips from start to finish of the program, including hiring recommendations, applicant screening tips, training record keeping, and candidate sample promissory notes.

This course is designed to help participants pass NICET Level I and II water-based inspection and certification exams in less than two years. AFSA ITM Program graduates achieve a 93 percent pass rate on NICET Level I and II exams, exceeding the 60-percent national average.

No prior experience is needed to enroll. The spring session has sold out, so registration for the fall session, which begins in October, is highly encouraged! Visit [www.firesprinkler.org/programs/sprinkler-inspector-training-program/](http://www.firesprinkler.org/programs/sprinkler-inspector-training-program/) for more information and to register.

### **ENROLL FOR THE NEXT WORKSHOP**

Training is essential for any industry, and proper training is indispensable. AFSA's education and training programs ensure industry players are well-equipped to perform their jobs safely and efficiently. They are keeping professionals updated with industry codes, trends, and regulations.

"The new course offerings are concentrated on providing the most efficient training based on input from our members to help efficiently train staff with the added and unique benefit of hands-on training tailored to the topic," comments AFSA's

Manager of Technical Services, Joshua McDonald, MSET, CFPS, CWBSP, WBITM. "The hands-on training hooks new fire protection professionals, builds confidence in the fire protection workforce, hones the skills of the more experienced, sets you apart, and will be implemented in our already successful existing courses."

To learn more or enroll in the new courses, visit [www.firesprinkler.org/itm2024/](http://www.firesprinkler.org/itm2024/) or email [training@firesprinkler.org](mailto:training@firesprinkler.org) with any questions. ■

## **Introduction to the Fire Sprinkler Industry**

### **A New AFSA Course Offered for Free!**

AFSA is proud to announce an introductory course for the fire sprinkler industry. It is designed to provide participants with a comprehensive overview of the fundamental principles, types of sprinklers, components, and functionality of sprinkler systems. This course is a valuable resource for all individuals new to the protection industry (administrative, sales, estimation, inspection, testing and maintenance, design, and facilities managers) and professionals seeking to enhance their knowledge and skills in this specialized field.

During this course, participants will explore the critical role that sprinkler systems play in fire protection and life safety. Participants will gain insight into the underlying principles of fire dynamics, examine roles that make up the fire sprinkler industry, identify specific functions and applications within various occupancies, and explore resources that enhance this knowledge and experience. The course will include an introduction to the basic codes and standards, as well as demonstrations and hands-on activities.

This course is intended for any experience level, new technicians, new inspectors, AHJs, facilities maintenance personnel, and new staff within a fire protection company. For attending this eight-hour course, participants will earn 8 CPDs, .8 CEUs, and 8 Contact Hours.

Classes will be offered on Feb. 29, May 10, July 25, and Sept. 4. For more information and to register, visit [www.firesprinkler.org/programs/introduction-to-the-fire-sprinkler-industry/](http://www.firesprinkler.org/programs/introduction-to-the-fire-sprinkler-industry/).

# THE IMPORTANCE OF ANNUAL FIRE PUMP TESTING

## ENSURING YOUR FIRE PUMP SYSTEM IS READY WHEN YOU NEED IT MOST

ERIC ANDRESEN, WBITM | AMERICAN FIRE SPRINKLER ASSOCIATION

**F**ire pumps are critical components of water-based fire protection systems; however, pumps can look like intimidating pieces of equipment to those who need to become more familiar with them. Fire pumps are installed in facilities where the available water source cannot meet the flow and pressure demands of the most demanding water-based fire protection systems onsite. They provide, or help to provide, the necessary pressure and flow for the water-based fire protection systems to work as designed to contain, suppress, or extinguish a fire occurring within the facility. Like any mechanical device, fire pumps can wear down and deteriorate over time and may not function properly when most needed. That's why annual fire pump testing is essential for ensuring that your fire pump is in good working condition and is ready to protect your property and the lives of your occupants.

### WHAT IS AN ANNUAL FIRE PUMP TEST?

The annual fire pump test comprehensively evaluates a fire pump's performance and condition. The fire pump will receive a thorough inspection, additional testing, and preventative maintenance on components compared to the regular no-flow (churn) testing done periodically throughout the year to ensure the pump can continue operating as designed and installed.

### WHY IS ANNUAL FIRE PUMP TESTING IMPORTANT?

There are many reasons why annual fire pump testing is critical, including, but not limited to:



Left photo: Capti Fire pump test header set up for full flow testing. Right photo: Little Hose Monster diffusing water flow during flow testing.

- Ensure compliance with NFPA 25, *Standard for Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*: Locally adopted fire codes require fire pumps to be inspected, tested, and maintained in accordance with NFPA 25.
- Reduce the risk of fire pump failure: Early detection of problems and preventative maintenance can prevent fire pump failure, which can have devastating consequences.
- Minimize property damage and loss of life: A properly functioning fire pump can help to minimize property damage and loss of life in the event of a fire.
- Lower insurance costs: Insurance companies may offer lower premiums for properties with well-maintained fire protection systems.

### WHAT TO EXPECT DURING A FIRE PUMP TEST

The fire protection contractor will arrive at your property with the necessary

equipment to conduct the test. The test will typically take a few hours to complete as preventative maintenance items are also typically conducted with the annual flow test, depending on how your service contract is structured. The minimum frequency for a fire pump to be flow tested is annually. It is flow tested at a minimum of three different flow conditions: no-flow (churn), 100 percent of rated flow capacity, and 150 percent of rated flow capacity. If a variable speed pump configuration is present, there will be additional test points, and the pump will run in both variable speed and fixed speed configurations. For variable speed pumps in the variable speed condition, data needs to be collected at six different flow conditions: no-flow, 25 percent, 50 percent, 75 percent, 100 percent, 125 percent, and 150 percent of rated flow capacity. When the variable speed pump is in the fixed speed condition, data must be collected at the same three flow conditions as a regular fixed speed pump outlined above. With the need for additional test points, annual flow testing

of a variable speed pump will require more time and a larger volume of water to flow throughout the duration of the annual test compared to a traditional fixed speed fire pump test.

Some pumps may not be able to be tested to 150 percent of the rated flow mark. There can be a few reasons for this, but it typically comes down to either safety stop rules put in place by the local water purveyor or the way the piping for the test header is configured. Safety stops put in place by the water purveyor will limit how low the suction pressure is allowed to go for pumps supplied by city water lines. This is to protect the integrity of the water supply piping and prevent debris and contaminants from being entrained into the potable water supply. If it is due to the piping configuration for the test header, then the raw data points from the test header may be misleading until they are adjusted by a qualified individual to account for pressure loss due to friction through the test header piping. In these cases, the pump is run to the point where

it discharges the most water at the lowest permissible suction pressure.

### DATA COLLECTION

The pressure readings from the suction and discharge gauges on the appropriate sides of the pump will be recorded at each flow condition. Pump speed (in rpm) will also be recorded. For electrically driven pumps, voltage and amperage readings will be taken on all lines if the reading can be taken without opening the pump controller. Engine oil pressure, speed, and temperature (water and oil) will be recorded periodically but do not have to coincide with reaching each flow condition.

### PASS AND FAIL CRITERIA

NFPA 25 has a few criteria that the pump is evaluated against to determine whether the pump and water supply as a whole are considered acceptable and performing as designed.

*8.3.7.2.3 The fire pump test results shall be considered acceptable if all of the following conditions are satisfied:*

- (1) Fire pump meets the flow and pressure requirements of the most demanding system(s) supplied by the fire pump based on owner-provided system design information
  - (2) Fire pump supplies 100 percent of rated flow
  - (3) Net pressure at each flow point is at least 95 percent of one of the following:
    - (a) Original manufacturer's pump curve
    - (b) Original unadjusted field test curve
    - (c) Test curve generated from the fire pump nameplate
  - (4) Requirements of 8.1.5 are met
- 8.1.5.1** The suction supply for the fire pump shall provide the required flow at or above the lowest permissible suction pressure to meet the system demand.

Simply put, the pump is checked to make sure that it is doing the work it was designed to do and that the pump, coupled with the water supply, is able to meet the demands of the water-based fire protection systems it is serving. The work the pump is doing is considered the net performance of the pump. This is the discharge pressure minus the suction pressure at each flow



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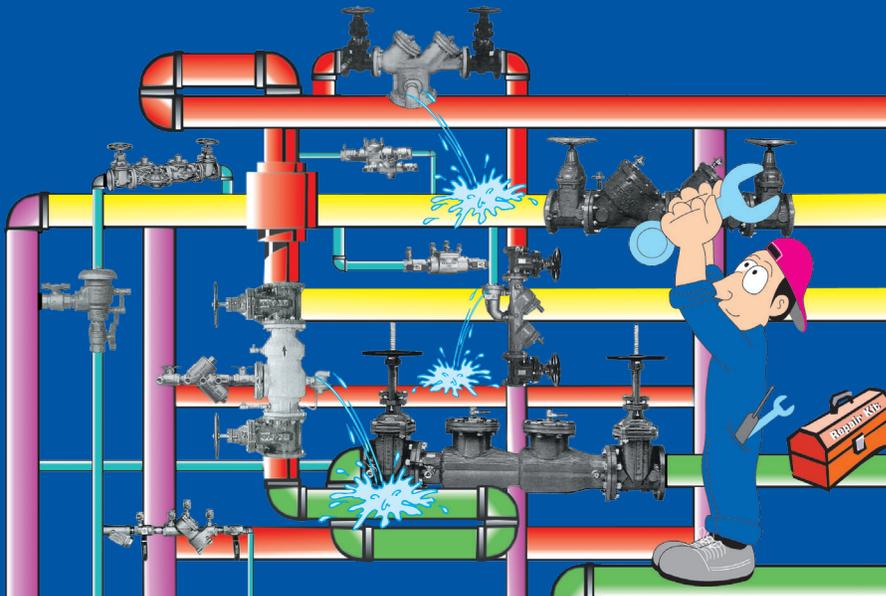
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point to determine how much work the pump is doing to achieve that result at that flow point. The gross performance of the pump is the discharge pressure curve of the pump. Gross pump performance is what the systems downstream are seeing. This is a more inclusive performance measurement as it incorporates both the water supply performance and the pump performance. Both net and gross performance should be evaluated.

Suppose the pump does not meet the above conditions to be considered acceptable. In that case, the building owner will be notified in writing, and an investigation into the cause of the unacceptable results will be performed. Looking at the net and gross performance curves can help determine why a pump may not have met all of the passing test criteria. It is possible for a pump to perform appropriately on the net performance curve but not pass when comparing gross performance to the most demanding water-based fire protection system. The incoming water supply could have deteriorated, and although the pump is still performing as designed, without as strong of a water supply coming

in, it is unable to meet the demands of the fire protection systems. Depending on the cause of the unacceptable results, the pump will receive a deficiency classification (impaired, critical deficiency, noncritical deficiency). A pump receiving an unacceptable test result should be repaired, or the cause corrected, as quickly as possible due to the criticality of the fire pump to the overall performance of the water-based fire protection systems within the facility. In some cases, the qualified person analyzing the results may deem the change as acceptable simply due to age.

### ANNUAL FIRE PUMP REPORTS

The fire sprinkler contractor will provide you with a written report of the test results, identifying any problems that need to be addressed.

*8.4.1.1 At a minimum, the report shall contain the following information:*

- (1) *All raw data necessary for a complete evaluation of the fire pump performance, including suction and discharge pressures, voltage and amperage readings to the extent that such work can be completed without opening an energized electric motor-driven*

*fire pump controller, and pump speed at each flow rate tested*

- (2) *Fire protection system demand as furnished by the owner*
- (3) *Pump performance, whether satisfactory or unsatisfactory*
- (4) *Deficiencies noted during the testing and identified during analysis, with recommendations to address deficiencies as appropriate*
- (5) *Manufacturer's performance data, actual performance, and the available pump discharge curves required by this standard*
- (6) *Time delay intervals associated with the pump's starting, stopping, and energy source transfer*
- (7) *Where applicable, comparison with previous test results*

In addition to annual testing, there are several other things that you can do to keep your fire pump in good working condition, including:

- Performing the periodic no-flow testing on your fire pump.
- Paying attention to changes in pump conditions (vibration, noises, smells) during the no-flow testing throughout the year.
- Performing preventative maintenance observed by your testing and inspecting contractor.
- Quickly addressing any deficiencies noted during any inspections or tests of the pump.

Interested in learning more about fire pump inspection, testing, and maintenance? Want to get more hands-on with performing no-flow and annual fire pump testing and evaluating the results? New in 2024, AFSA will be offering a two-day hands-on fire pump class. To learn more about this class, register, or learn about other AFSA training opportunities, visit [www.firesprinkler.org/programs/fire-pump-itm-workshop/](http://www.firesprinkler.org/programs/fire-pump-itm-workshop/). ■

**ABOUT THE AUTHOR:** Eric Andresen, WBITM, is the technical training specialist for AFSA. He has experience with risk engineering applied to fire protection system analysis and the inspection, testing, and maintenance of fire protection systems for the insurance industry. Andresen has experience in the hands-on training of water-based fire protection systems for risk engineers and facilities management staff. Andresen received his Bachelor of Science degree in fire protection and safety engineering technology from OSU.



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# HONORING EXCELLENCE

## NOMINATIONS FOR AFSA'S HIGHEST AWARDS ACCEPTED ONLINE

The American Fire Sprinkler Association (AFSA) is accepting online nominations for its top honors: the Henry S. Parmelee Award, the Fire Sprinkler Advocate of the Year Award, and the Young Professional of the Year Award. Awards will be presented during AFSA43: Convention, Exhibition & Apprentice Competition in Denver this fall, and the recipients will be featured in *Sprinkler Age*. Visit [www.firesprinkler.org/awards/](http://www.firesprinkler.org/awards/) to submit a nomination.

### HENRY S. PARMELEE AWARD

AFSA's highest honor, the Henry S. Parmelee Award, is given in recognition of an outstanding individual who has dedicated himself or herself to the professional advancement of the fire sprinkler industry and to the goal of fire safety through automatic sprinklers. AFSA members may nominate someone with a long-term commitment to improving the industry. The award was instituted in 1983 to give recognition to distinguished industry professionals and to memorialize Henry S. Parmelee, an outstanding pioneer in the industry who is recognized as the inventor of the first commercially successful sprinkler. June 30 is the deadline for 2024 nominations.

### FIRE SPRINKLER ADVOCATE OF THE YEAR AWARD

This award was created to honor individuals not directly involved in the fire sprinkler industry whose efforts have had a national impact in advancing the fire protection industry and automatic fire sprinklers. Previously known as the Fire Service Person of the Year, the award was renamed in 2001 to better reflect the diversity of backgrounds, including the fire service, as well as legislative, code, and standards-setting groups in which individuals can have a major impact on the industry. Previous recipients include Home Fire Sprinkler Coalition Spokesman Ron Hazelton; California State Fire Marshal Tonya Hoover; Congressman Jim Langevin; and Senator Rick Santorum. The nomination deadline for this year's award is March 31.

### YOUNG PROFESSIONAL OF THE YEAR AWARD

The Young Professional of the Year (YPY) Award honors the contributions of promising fire protection specialists and serves to reaffirm the growing importance of fire sprinkler knowledge in the world of business and construction management among the next generation of industry leaders; promote the emergence of young talented professionals in the field of fire protection, thus fostering interest for the fire sprinkler profession and a future career in this field of expertise; and inspire fire protection



Dr. James A. Milke (right) received AFSA's 2023 Henry S. Parmelee Award from 2021-2023 Chair of the Board Jack Medovich, P.E. at AFSA42 in Orlando.

companies and the fire protection community to invest even more in the development and excellence of the profession. Nominations for the 2024 YPY award are due by March 31.

### FIRE SPRINKLERS SAVE LIVES AWARD

In addition to the awards presented annually at convention, AFSA's Fire Sprinklers Save Lives Award is presented year-round to recognize individuals outside the fire sprinkler industry who help dispel the myths about fire sprinklers by generating public awareness about this life-saving technology. AFSA's Public Education & Awareness Committee accepts and recommends nominees for this award, and they are approved by the AFSA Board of Directors. The nomination will be considered at the committee's next meeting.

### JOIN THE CELEBRATION AT AFSA43

Visit [www.firesprinkler.org/awards/](http://www.firesprinkler.org/awards/) to read the eligibility rules and to nominate someone for the association's highest honors. Join AFSA to celebrate this year's honorees at AFSA43: Convention, Exhibition, and Apprentice Competition, Sept. 18-21, 2024, at the Gaylord Rockies in Denver. For more information on AFSA43, visit [www.firesprinkler.org/AFSA43/](http://www.firesprinkler.org/AFSA43/). ■

# LEARN FROM DESIGN EXPERTS

## TRADITIONAL AND HYBRID LEARNING SCHOOLS OPEN FOR ENROLLMENT

**D**esign School is back for another year! The American Fire Sprinkler Association's (AFSA) Beginning and Intermediate Design Schools have become a favorite within the industry and have seen year-over-year success. These training courses can help those wanting to become designers and professionals in the field looking to enhance their skills to advance their career or take sprinkler services to the next level.

Accommodating different learning styles and providing more flexibility for busy schedules, both courses are offered in traditional and hybrid capacities. Hybrid courses are half online and half in-person, providing a perfect balance between virtual and in-person sessions. Both course formats offer students a unique learning experience that's favored by both designers and their employers.

### GATEWAY TO DESIGN

Trainees, entry-level technicians, and anyone in the sprinkler industry looking to transition to system layouts will enjoy the Beginning Design School. The course introduces participants to a comprehensive approach to preparing fire sprinkler drawings. Students will master the installation and design approach requirements of NFPA 13, *Standard for the Installation of Sprinkler Systems*, 2019 edition. Participants will prep fire sprinkler layouts, shop drawings, and hydraulic calculations by hand.

An exam will be conducted at the end of the course. No CAD or third-party software is taught in this class. Upon course completion, participants will earn 7.6 CEUs, 76 CPDs, and 76 contact hours.

The Beginning Design School is offered four times this year: Jan. 15 – Feb. 2, April 1 – 26, July 15 – 26, and Oct. 28 – Nov. 22. To enroll or learn more about this course, visit [www.firesprinkler.org/programs/beginning-fire-sprinkler-system-planning-school/](http://www.firesprinkler.org/programs/beginning-fire-sprinkler-system-planning-school/).

### NEXT-LEVEL DESIGN

The Intermediate Design School is designed for experienced layout technicians. Participants will dive deeper into layouts for standpipe systems, fire pumps, seismic protection, and the design requirements in NFPA 13, NFPA 14, *Standard for the Installation of Standpipe and Hose Systems*, and NFPA 20, *Standard for the Installation of Stationary Pumps for Fire Protection*. Students will



Learn design from the experts! AFSA offers beginner and intermediate classes in traditional or a hybrid format.

utilize computer modeling software to apply design requirements and become affiliated with the BIM process.

“The Intermediate Design School provides a unique experience where students can put their new knowledge to practice immediately. This course uses specially created REVIT models to simulate an actual building environment and challenges students to come up with creative solutions to complete sprinkler designs for high-piled storage, standpipes, seismic protection, and fire pumps,” states AFSA’s Senior Manager of Engineering and Technical Services, Kevin Hall, M.Eng., P.E., ET, CWBSP, PMSFPE.

Upon course completion, participants will earn 4.7 CEUs, 47 CPDs, and 47 contact hours. The Intermediate Design School is offered three times this year: Feb. 7 – 16, July 22 – Aug. 2, and Nov. 5 – 15. To enroll or learn more, visit [www.firesprinkler.org/programs/intermediate-fire-sprinkler-system-planning-school/](http://www.firesprinkler.org/programs/intermediate-fire-sprinkler-system-planning-school/).

### DON'T MISS OUT

Discover the secrets of design from the experts themselves! Industry experts teach AFSA’s design schools and are eager to share their knowledge and experiences. Enroll soon and take advantage of early-bird registrations with discounted rates off regular registration costs. Seats are limited, so act fast to secure a spot! To learn more about AFSA’s training and educational programs, visit [www.firesprinkler.org/education-training/](http://www.firesprinkler.org/education-training/). ■

# THAT'S MY RESPONSIBILITY?!?

## CORRECTING DEFICIENCIES AND REPAIRS FOR FACILITY MANAGERS

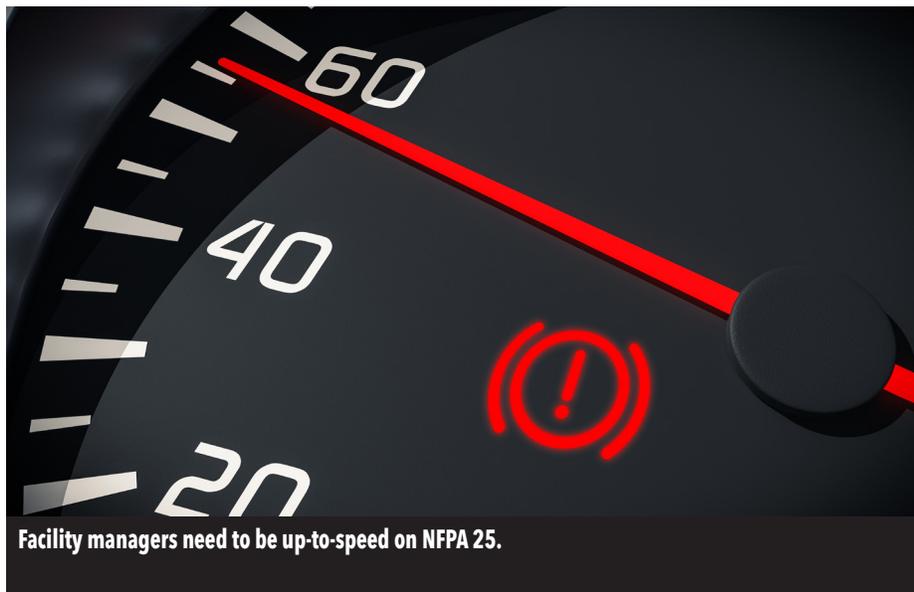
JOSH McDONALD, CWBSP, WBITM, CFPS, MSET | AMERICAN FIRE SPRINKLER ASSOCIATION

The inspection, testing, and maintenance (ITM) of water-based fire protection systems is similar to a vehicle's inspection, testing, and maintenance. Vehicle owners are required to maintain fuel levels, check directional and brake light functions, and monitor tire tread. As a building owner or designated representative, you must ensure that the control valve of a sprinkler system is open, the pressure is maintained, and the alarm valve is in decent shape.

As time passes and the vehicle is used, various components need more attention and a professional to dive deeper into any problems. Vehicle manufacturers recommend inspections at specific mileage intervals, and some states require an annual inspection. Following automotive servicing, a list of potential issues, critical concerns, and preventative maintenance items is presented to the owner. The owner must then prioritize those items based on risk, budget, or the owner's ability to make the repairs him/herself. There is not much of a difference between this process and that of a sprinkler system, except that the sprinkler system is used less often. So, to relate to the topic, don't park your vehicle outside for six months to a year and expect that it will work safely the next time you drive it!

### NFPA 25 REQUIREMENTS

For building owners or designated representatives, ITM requirements (or the owner's manual) are clearly outlined in section 4.1 of NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*, 2023 edition. While the facility manager may not own the building, they are often the designated representative of the building



owner to act as their agent and comply with the requirements of section 4.1. This includes ensuring the building systems function as intended, managing repair and maintenance tasks within a budget, and hiring knowledgeable and trained contractors to maintain the building system when the required tasks are outside of their team's expertise, capabilities, or jurisdictional requirements. The ITM tasks required by NFPA 25 are reported by the hired contractor for information within the scope of the contract. These items are classified as a noncritical deficiency, a critical deficiency, an impairment, or no deficiency found.

**3.3.8\* Deficiency.** *For the purposes of inspection, testing, and maintenance of water-based fire protection systems, a condition that will or has the potential to adversely impact the performance of a system or portion thereof but does not rise to the level of an impairment.*

**3.3.8.1 Critical Deficiency.** *A deficiency that, if not corrected, can have a material effect on the ability of*

*the fire protection system or unit to function as intended in a fire event.*

#### **3.3.8.2 Noncritical Deficiency.**

*A deficiency that does not have a material effect on the ability of the fire protection system or unit to function in a fire event, but correction is needed to meet the requirements of this standard or for the proper inspection, testing, and maintenance of the system or unit.*

**3.3.23\* Impairment.** *A condition where a fire protection system or unit or portion thereof is out of order, and the condition can result in the fire protection system or unit not functioning in a fire event.*

Per NFPA 25, the property owner or designated representative must correct or repair deficiencies or impairments. This means that someone must prioritize the findings and authorize or hire knowledgeable and trained personnel to complete the tasks. The prioritization will include risk, cost, and enforcement.

**4.1.5.1\*** *The property owner or designated representative shall correct or repair deficiencies or impairments.*

The risk and cost are based on the perspective of the situation. The following information is an example of potential findings, classifications, and prioritization for discussion purposes. Other examples are provided in the annex (A.3.3.8) of NFPA 25.

## EVALUATING DEFICIENCIES

Suppose an inspection has been performed and the following deficiencies have been identified:

- Missing hydraulic information sign
- Storage within 18 inches of a standard spray sprinkler deflector
- Control valve not operating through its complete range of motion

Let's review each deficiency in the context of NFPA 25 requirements.

### *Missing hydraulic information sign*

– A sprinkler system missing a hydraulic information sign is considered a noncritical deficiency, as the sprinkler system does not need the sign to function. Overall, a missing hydraulic information sign has a low potential for risk, assuming that change management has been in place throughout the building's lifetime. In this case, it is also an easy fix. In a facility that has up-to-date drawings and the system acceptance documentation, the cost to produce and post hydraulic information is minimal. However, missing hydraulic data may be considered an item of importance and a higher potential risk for a facility that has been newly acquired without the initial construction documents or as-builts, as it could mean that the existing system may not sufficiently protect life or property given the current hazards and conditions within the space. In this case, it becomes much more expensive because the system must be reverse-engineered to determine its protection capabilities.

*Storage within 18 inches of a standard spray sprinkler deflector* – This may be classified as a critical deficiency as it can prevent the sprinkler from developing a spray pattern for sufficiently controlling a fire below. Standard spray sprinklers with storage within 18 inches of the sprinkler deflector pose a moderate to high risk but, most of the time, can be rectified with the minimal effort that it takes to move the storage and train people in the

area to maintain the storage greater than 18 inches below the sprinkler deflector.

*Control valve not operating through its complete range of motion* – This is an example of the most serious type of deficiency. It is classified as an impairment as it can occlude the water supply, drastically affecting the flow of sprinklers in a fire condition. It poses a moderate to high risk if not fixed and may be costly as it may require draining the upstream and downstream system or completing a flush following an obstruction investigation. The risk may be considered moderate when the system feeds a small unoccupied outbuilding that is 200 feet from the facility but high if the system is feeding a nursing home with occupants of altered or limited mobility.

The first thought you may have when reading this is that all deficiencies must be fixed, and you're right, but there are many considerations when a facility manager determines priorities. To relate this back to our vehicle example, you might consider the risk of reduced tire tread as minimal until those tires are on a vehicle being driven by your newly licensed 16-year-old child. The same is true for sprinkler systems. When remedying deficiencies and making repairs, risk is assessed based on the facility, the capabilities of the internal staff, the cost and budgetary restrictions, and what is required to be fixed immediately.

## FINDING QUALIFIED PERSONNEL

Once the priorities are triaged, a qualified person is required to make the repair or remedy the situation. Depending on the abilities of the facility maintenance staff, some tasks may stay in-house (e.g., making a valve accessible or decreasing the height of storage). Others may be contracted out (e.g., replacing a dry pipe gasket or performing a complete system flush).

*4.1.1.3.1\* Qualified personnel shall meet at least one of the following qualifications:*

- (1) Meets the requirements and training for a given field acceptable to the authority having jurisdiction*
- (2) Is certified by a nationally recognized fire protection certification organization*

*acceptable to the authority having jurisdiction*

*(3) Is registered, licensed, or certified by a state or local authority to perform inspection, testing, and maintenance of water-based fire protection systems*

### *4.1.5\* Corrections and Repairs.*

*4.1.5.1\* The property owner or designated representative shall correct or repair deficiencies or impairments.*

...

*4.1.5.2 Corrections and repairs shall be performed by qualified personnel.*

## NEW COURSES FOR FACILITY MANAGERS

Contractors must be knowledgeable and aware enough to have detailed discussions with the property owner or designated representatives about the ITM findings, and facility managers must have enough knowledge about the systems to understand what their responsibility is, the importance of the systems, and when it is outside of their qualifications to remedy the deficiencies. AFSA is planning to provide the essential information for both parties in the new Introduction to the Fire Sprinkler Industry, Beginning ITM Workshop, and Intermediate ITM Workshop training programs in the Fire Sprinkler Playground (AFSA's hands-on training lab in Richardson, Texas). Go to [www.firesprinkler.org/education-training/](http://www.firesprinkler.org/education-training/) for more information. ■

**ABOUT THE AUTHOR:** Joshua McDonald, MSET, CFPS, CWBSP, WBIFM, is the manager of technical services for the AFSA. He is responsible for developing, updating, and delivering technical content. He has experience in training for fire protection industry professionals, including web-based and hands-on learning. As a manufacturer, McDonald has been involved in the research, development, and technical services of fire protection products and has experience with risk engineering applied to the fire protection analysis and the ITM of fire protection systems. He is a member of several NFPA technical committees responsible for developing the model codes and standards. He also represents AFSA on UL standard technical panels, and is responsible for revising and maintaining the product standards used in the sprinkler industry. He received his Bachelor of Science degree in fire protection and safety engineering technology and a Master of Science degree in fire safety and explosion protection from Oklahoma State University. McDonald is a member of NFPA and SFPE.



# LIVE TRACKING FOR FIRE SAFETY PROFESSIONALS

## FLEETR OFFERS DISCOUNTS FOR AFSA MEMBERS

**G**reat news! A new partnership has been added to the American Fire Sprinkler Association's (AFSA) portfolio of strategic relations. There are several benefits and discounts that come with being a member of AFSA, and Fleetr, the leader in small fleet management and insurance solutions, has joined the group! Fleetr is renowned for its simple yet cost-effective GPS tracking solution, making it an excellent addition to AFSA's portfolio of partners. Members can now enjoy unique benefits and discounts from this partnership.

Fleetr's platform offers a comprehensive solution for AFSA members to manage their fleets and enhance their business services. With its advanced analytics and tracking capabilities, AFSA members can easily manage their fleet, improve safety, increase fuel efficiency, understand maintenance needs, assess driver trends, and potentially save on commercial auto insurance. Fleetr's analytics and tracking capabilities have proven to be helpful in efficiently managing businesses. The platform is user-friendly and easy to set up and operate.

"Seeking strategic partnerships that provide discounted services or products to our members is one of the many ways AFSA elevates its offerings," comments AFSA Senior Director of Membership and Chapter Development, Meda Merritt. "Partnering with Fleetr is a specialized service that will greatly benefit our members and their businesses."

### **BENEFITS AND SERVICES**

As a trade association, AFSA has always prioritized the safety of its members, and managing a fire safety business comes with many challenges. Fleetr GPS vehicle trackers offer a range of safety benefits that supervisors can rely on. There are instant alerts for speeding, idling, and reckless driving, ensuring managers can stay on top of any potential safety risks. By tracking analytics such as fuel efficiency and driver safety scores, businesses can make informed decisions to improve safety standards. Reviewing the entire trip history of any vehicle with this platform allows users to track trends in the car and overall fleet safety and efficiency.

The most highly used feature is the fleet management software. It offers real-time and accurate GPS tracking. Through the app downloaded to a phone or desktop computer, supervisors always know where vehicles are at all times. Additional



**Fleetr improves fleet safety and efficiency, saving businesses time and money.**

alerts for after-hour driving and driving out of defined territory are also available.

Fleetr is a great tool to keep vehicles maintained. It has preventative maintenance alerts and comes with alerts for DTC error codes that will detect and bring engine issue notifications to your attention. Maintaining vehicle maintenance is vital to cost-effectively managing a fleet. Fleetr provides tools to reduce vehicle operating expenses based on efficiency. Efficiency is measured by idling time and rapid acceleration events, both increasing fuel costs. Reducing vehicle operating expenses is another way Fleetr can help members save.

### **EXCLUSIVE OFFER**

AFSA members get a one-month free trial! After the free trial, an exclusive offer of \$9.99 per month per vehicle is available. There is a 23-percent monthly discount with no upfront costs to get started. Not to mention, free shipping is included, and no minimum or maximum vehicle count is required. No contracts are involved, and members can cancel anytime if needed.

To learn more about Fleetr and its exclusive offer for AFSA members, visit [www.fleetr.com/fleetr-afsa-promo/](http://www.fleetr.com/fleetr-afsa-promo/) and enter promo code "AFSA." For any questions, members can call Fleetr at (305)-901-8744. View all member discounts online at [www.firesprinkler.org/member-discounts/](http://www.firesprinkler.org/member-discounts/). ■

# THANK YOU TO OUR SPONSORS!

On October 13th the AFSA Virginia Chapter held the 28th Burn Survivor's Golf Tournament. Our sponsors and supporters helped donate \$60,000 to benefit the Central Virginia Burn Camp and the Old Dominion Firefighters Burn Foundation.



## PRESENTING

George Wagner | Harry Hoffon

## DIAMOND

Eagle Fire Inc.  
Ferguson Fire & Fabrication

FLSA  
VSC Fire and Security

## PLATINUM

Service Trade  
Viking Supply  
Atlantic Constructors

Performance Fire (2)

Mike Meehan  
Old Dominion Firefighters Foundation  
Fire Solutions

## GOLD

Zurn  
Checkmark Services  
General Air Products  
Extinguish Fire Corporation  
American Automatic Sprinkler  
Cornet

Rosewood Corporation  
Central Virginia Burn Camp  
Reliable Automatic Sprinkler  
United Sprinkler Company  
Magic City Sprinkler  
AFSA National

Johnson Controls/JCI (2)

# HIGHER STANDARDS

**H**appy New Year! 2024 is going to be an exciting year for the American Fire Sprinkler Association (AFSA) and the standards development process. AFSA has formed a Technical Advisory Council (TAC) to establish AFSA positions on technical changes to the documents that affect the sprinkler industry.

The TAC is comprised of 15 contractor voting members and advisors from ex-officio associate members. This group will propose, discuss, and debate the merits of proposed changes to NFPA standards and direct AFSA representatives on NFPA committees through consensus. The TAC will have representatives from each AFSA region—giving a voice to the entire AFSA membership. Once the roster is finalized and published, feel free to reach out to your regional representative and discuss any issues that the TAC should hear. The first meeting will be held March 19-20 at AFSA headquarters in Richardson, Texas, and the meeting is open to all AFSA members in good standing.

While the number of voting members on the TAC is currently restricted to 15 contractor companies, there are still opportunities for interested AFSA members to participate. Since 2020, AFSA Engineering and Technical Services staff have been accumulating seats on NFPA technical committees (54 committees/44 documents/116 seats) and UL Technical Committees (12 committees). With the establishment of the TAC, it is now time to return those seats to our members under the direction of the TAC. If any member is interested in serving on an NFPA or UL Technical Committee, they should reach out to AFSA staff, and representatives will be appointed through the TAC.

In addition kicking off the TAC, AFSA staff is working on finalizing the 2025 editions of NFPA 13 *Standard for the Installation of Sprinkler Systems*, NFPA 13R, *Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies*, NFPA 13D, *Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes*, NFPA 20, *Standard for the Installation of Stationary Pumps for Fire Protection*; submitting public comments for the second draft of the 2026 edition of NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*; and submitting public inputs for the 2027 edition of NFPA 14, *Standard for the Installation of Standpipe and Hose Systems*.

The last step in the standard revision process for NFPA 13, NFPA 13R, NFPA 13D, and NFPA 20 is to review the second draft and determine if any revisions need to be changed via a Notice of Intent to Make a Motion (NITMAM). This is the final opportunity to make sure the 2025 editions of these documents



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are exactly how our membership wants them. For the sprinkler installation standards, there have not been any issues flagged by Engineering and Technical Services staff, but members are encouraged to review the draft documents and notify AFSA staff if there are any changes that you just can't stomach.

For fire pumps, there is one change that AFSA will likely pursue—horsepower ratings for fire pumps. AFSA submitted proposals at both the first and second draft stages of the revision cycle to change the power requirements for fire pumps from the maximum possible to a more reasonable value of the brake horsepower at 200 percent of the rated flow. The current requirement grossly over-sizes the power requirements for fire pumps. Pumps are only permitted to utilize up to 150 percent capacity for fire protection design, and past that point, the liquid supply could be insufficient, and the motor should not need to run past that point—plus a safety factor. Flows beyond 200 percent are indicative of a catastrophic event that is not within the purview of NFPA 20 to mitigate. The purpose of NFPA 20 is to provide a reasonable degree of protection, and mandating that a fire pump must be indestructible is not reasonable.

The merits of this change will be discussed at the inaugural TAC meeting in March to determine AFSA's official stance on the matter, and we are extremely excited about the consensus and collaboration this council will foster in the years to come. ■

**KEVIN HALL, M.ENG, P.E., ET, CWBSP, PMSFPE**  
AFSA SENIOR MANAGER OF ENGINEERING  
& TECHNICAL SERVICES



# TECHNICAL CHALLENGES

## CAN YOU MEET THE CHALLENGE?

AFSA's Engineering & Technical Services Department staff present technical challenges here for you and your co-workers. These exercises are also excellent preparation for professional certification tests and may count as CEUs. Check with your certification organization. Answers to this issue's questions will be presented in the next issue.

## NOVEMBER/DECEMBER ANSWERS

The following questions are based on NFPA 13, *Standard for the Installation of Sprinkler Systems*, 2022 edition.

1. When a waterflow test is used for the system design, how current must the waterflow test data be when submitted with the working plans? *Per NFPA 13, 2022 edition, Section 4.5.1.1, where a waterflow test is used for the system design, the test must be conducted no more than 12 months prior to working plan submittal unless otherwise approved by the AHJ.*
  - A. Within 6 months of the working plan submittal date
  - B. Within 12 months of the working plan submittal date
  - C. Within 18 months of the working plan submittal date
  - D. Within 24 months of the working plan submittal date
2. Which of the following are the requirements for the pressure gauges used in a waterflow test? *Although there is no requirement in NFPA 13, AFSA believes that all test gauges should be both approved and calibrated within  $\pm$  percent annually, as in the requirements for all other gauges in the system. However, there are some discrepancies in the current standards. NFPA 25, 2023 edition, section 8.3.3.5.2 requires that all gauges, transducers, and device other than flow meters used for measurement during a fire pump test must be calibrated at least annually to an accuracy level of  $\pm 1$  percent. However, NFPA 291, 2022 edition, section 4.6.3 states that all pressure gauges should be calibrated at least every 12 months, or more frequently depending on use. Your AFSA Tech Services staff has submitted a change request in order to clarify these requirements in the next editions of the applicable standards.*
  - A. Must be listed and calibrated within one year
  - B. Must be approved and calibrated within one year
  - C. Must be listed and calibrated within six months
  - D. None of the above
3. Who is required to provide the water supply information for the design of a sprinkler system, including any necessary adjustments? *Per NFPA 13, 2022 edition, section 4.5.1.1, where a waterflow test is used for the system design, the test must be conducted no more than 12 months prior to working plan submittal unless otherwise approved by the AHJ.*
  - A. Building owner
  - B. AHJ
  - C. Sprinkler contractor
  - D. Engineer of record

4. Which of the following is TRUE with regard to static pressure in a typical city water main? *Per NFPA 13, 2022 edition, section 3.3.2020, static pressure is defined as the pressure that exists at a given point under normal distribution system conditions measured at the residual hydrant with no hydrants flowing.*
  - A. It represents a condition of zero flow through the water main.
  - B. It represents a condition with normal domestic waterflow through the main, but zero hydrant flow.
  - C. It represents a condition with both normal domestic waterflow and hydrant flow.
  - D. It represents a condition with hydrant flow but zero domestic waterflow through the main.

## JANUARY/FEBRUARY QUESTIONS

The following questions are based on NFPA 13, *Standard for the Installation of Sprinkler Systems*, 2022 edition.

1. How often are diesel fuel tank level float switches and supervisory signals for the interstitial space (area between the double tank walls) required to be tested for liquid intrusion?
  - A. Monthly
  - B. Quarterly
  - C. Semi-annually
  - D. Annually
2. How often must you change the oil filter on a diesel engine driver?
  - A. Every 50 hours of operation
  - B. Quarterly
  - C. Semi-annually
  - D. Annually or every 50 hours of operation, whichever comes first
3. What is/are the criteria to determine acceptable performance during an annual test of a fire pump assembly?
  - A. The interpretation of the net flow test performance relative to the manufacturer's original performance data
  - B. The interpretation of the gross flow test performance relative to acceptably meeting the demands of all connected fire protection systems
  - C. Both A and B
4. On a fire pump system utilizing a flow meter for testing, how often and to what accuracy level are flow meters required to be calibrated?
  - A. Annually,  $\pm 1$  percent
  - B. Annually,  $\pm 3$  percent
  - C. Every three years,  $\pm 1$  percent
  - D. Every three years,  $\pm 3$  percent

# #MEMBERSMATTER!

**A**ssociations play a valuable role, whether it be professional development, business growth, networking, or creating or changing the standards that impact the industry. Whatever the reason, becoming a member of an industry-specific association offers numerous opportunities that positively impact your professional development and the success of your business. Associations provide a need or answers to questions that can typically be costly or waste time if sought independently. By partnering with an association, the odds of success increase.

As an AFSA member, there are countless possibilities that can positively impact both you and your business's success. Take a moment to remember why you joined AFSA. Remembering your "why" provides the foundation for determining the value you see in your membership. Your WHY reminds you of the importance of associations and how they are key to the growth of your business. As an AFSA member, you've already made the best decision by joining and unlocking your potential for success by accessing invaluable resources.

If your WHY is professional development, as an AFSA member, you gain exclusive access to a wide range of educational materials, live webinars, on-demand webinars, in-person training, and conferences. These resources are specially designed to enhance your knowledge and skills in the fire sprinkler industry, allowing you to stay up to date with the latest trends and advancements.

If your WHY is networking, being an AFSA member gives you the opportunity to connect with like-minded professionals who share your passion and interest in the industry. Building relationships with fellow members allows you to tap into a wealth of collective knowledge and experiences, opening doors to new business opportunities and growth. This can happen by engaging with one of the 29 AFSA local chapters.

If your WHY is to impact the industry, AFSA actively engages in advocacy efforts to promote and protect the fire sprinkler industry. Currently, AFSA sits on more than 50 NFPA committees. As a member, you can contribute to shaping industry standards and regulations, ensuring that your voice is heard and your interests are represented. By actively participating in AFSA initiatives, you not only demonstrate your commitment to the industry but also help create a positive impact on its future.

Why is reminding yourself of why you joined important? There is a saying, "You get out what you put into it." AFSA can provide the benefits, but you, as the member, must take advantage of the opportunities provided. Attending a chapter meeting is a great way to network and transfer knowledge. If you need CEUs, registering to attend one of AFSA's many webinars is a great way to rack up those credits. If you want



Remembering your "why" provides the foundation for determining the value you see in your AFSA membership.

to network while gaining CEUs, attend AFSA's annual convention. Seeking to grow professionally? Enroll in an ITM program, Design School, or Hydraulic Calculations course. These are just a few ways you can see the value of your AFSA membership.

AFSA continuously seeks ways to improve and expand its offerings, including constructing our brand-new hands-on training lab, building strategic partnerships to offer discount pricing on business products, and developing the new Virtual Instruction Program (VIP) for apprentices. As AFSA continues to expand, at the core, our main priority is YOU, our members.

I challenge you to reconnect with your "why." Remind yourself of what you were seeking or needed when you decided to join. Not sure why you joined; no worries; our membership team is here to assist you in navigating AFSA offerings, whether it's education, training, or networking. Your success is our goal. AFSA is excited to have you as a member, and we are dedicated to providing you with exceptional service. ■



**MEDA MERRITT**  
AFSA SENIOR DIRECTOR OF MEMBERSHIP  
& CHAPTER SUPPORT

# AFSA NEW MEMBERS

New members as of January 11, 2024

## CONTRACTORS

A.R.K. Fire Protection Systems Inc., Sun Valley, CA  
Mansumo Engineering, Harare, ZI  
Michael Cianciotto Plumbing & Heating LLC, Pompton Plains, NJ  
New Mexico Fire Protection LLC, Albuquerque, NM  
Relay Fire & Safety, Baltimore, MD  
Solution Fire Prevention Inc., Marshfield, MA  
Texas Fire Solutions, LLC, Fresno, TX  
Thomas Mechanical & Fire Protection, Laurens, SC

## ASSOCIATES

Fleetr, Miami, FL  
Globe Pipe Hanger Products, Inc., Cleveland, OH  
Wire Products Company, Cleveland, OH

## DESIGNERS

Arcill Engineering, Falls Church, VA

## FACILITY MANAGERS

Jerry Blount, Clinton, MS  
Scott Magness, Hobbs, NM  
Terry Victor, Upperco, MD

## AHJs

Joseph Filippelli, Brooksville, FL  
Barry Smith, Brooksville, FL  
John Van Essen, Lakewood, CO  
John Brennan, Lakewood, CO  
Salvatore Izzo, Indian Land, SC  
Bradley Loon, Windham, ME  
Keith Williams, Surfside Beach, SC  
Robert King, Augusta, ME  
Michael Havens, San Bernardino, CA  
Robert Rosch, Morrisville, NC  
Edward Felts, Lebanon, TN  
Joseph Wetzell, Wylie, TX  
Jennifer Henderson, Aurora, CO  
Dietrick Holliday, Lithia Springs, GA  
Kerri Berberet, Santa Barbara, CA  
Robyn Taylor, Escondido, CA  
Craig Ver Huel, Ankeny, IA  
Ahmet Furkan, Akyildiz Istanbul, Turkey  
Shannon Tolman, Burley, ID  
Jerad Payne, Chaska, MN  
Don Parsons, Sparks, NV  
Joe Gutierrez, Denton, TX  
Johnny Hoskins, Westminster, CO

## CALENDAR

### FEBRUARY 2024

4 - 10

- Burn Awareness Week

7 - 16

- Intermediate Design School  
[www.firesprinkler.org/calendarevent/intermediate-design-school/](http://www.firesprinkler.org/calendarevent/intermediate-design-school/)

14

- Fire Pump Sizing Webinar  
[www.firesprinkler.org/calendarevent/fire-pump-sizing/](http://www.firesprinkler.org/calendarevent/fire-pump-sizing/)

26 - 28

- Sprinkler Hydraulic Calculations Workshop  
[www.firesprinkler.org/programs/calculations/](http://www.firesprinkler.org/programs/calculations/)

28

- Changes to NFPA 20, 2025 Ed. Webinar  
[www.firesprinkler.org/calendarevent/changes-to-nfpa-20-2025-ed/](http://www.firesprinkler.org/calendarevent/changes-to-nfpa-20-2025-ed/)

### MARCH 2024

23

- Internal Inspections and Obstruction Investigations Webinar  
[www.firesprinkler.org/calendarevent/internal-inspections-and-obstruction-investigations/](http://www.firesprinkler.org/calendarevent/internal-inspections-and-obstruction-investigations/)

26

- Advanced Hydraulic Calculations Workshop  
AFSA Headquarters, Richardson, TX  
[www.firesprinkler.org/programs/advanced-sprinkler-hydraulic-calculations-workshop/](http://www.firesprinkler.org/programs/advanced-sprinkler-hydraulic-calculations-workshop/)

27

- Design Approaches for NFPA 30 Webinar  
Online  
[www.firesprinkler.org/calendarevent/design-approaches-for-nfpa-30/](http://www.firesprinkler.org/calendarevent/design-approaches-for-nfpa-30/)

### MARCH 2024

20 - 22

- Sprinkler Hydraulic Calculations Workshop  
[www.firesprinkler.org/programs/calculations/](http://www.firesprinkler.org/programs/calculations/)

### JULY 2024

10 - 12

- Advanced Hydraulic Calculations Workshop  
AFSA Headquarters, Richardson, TX  
[www.firesprinkler.org/programs/advanced-sprinkler-hydraulic-calculations-workshop/](http://www.firesprinkler.org/programs/advanced-sprinkler-hydraulic-calculations-workshop/)

Seminars subject to change. Call (214) 349-5965 to confirm locations and times.

For more events and details, visit [firesprinkler.org](http://firesprinkler.org) and click on "Events" and "Events List"

# AFSA NEWS



**From left to right: George DiMatteo and Travis Hitzeman with Ferguson Fire and Fabrication; AFSA Chair of the Board Linda Biernacki; AFSA Region 2 Director Don Kaufman; and Marlene Garrett, Leslie Clounts, and Roger Gragg—all with AFSA.**

## BEST WISHES TO MARLENE GARRETT!

After 26 years as AFSA's leader in coordinating our meetings and conventions, AFSA's Vice President of Meetings & Education Services Marlene Garrett, CMP, has decided to move on to new career and professional development challenges. Please join the AFSA Board of Directors and staff in wishing her all the best in her new role with an association in the medical services world. Her last official day was December 31, 2023, but she promised not to be a stranger!

## JONES, RIOS, AND WILLS JOIN THE AFSA TEAM

The team is growing! The American Fire Sprinkler Association (AFSA) is excited to welcome three new employees to the AFSA team. April Jones has joined the association as membership service specialist, Clarissa Rios joined as communications coordinator, and Ashley Wills joined as staff accountant.

Jones collaborates with AFSA members across the board and works alongside AFSA's marketing team to develop and execute membership campaigns. She also takes part in planning member events and strategic outreach to target potential members. Jones holds an associate's degree in business administration from Independence University.

"We are excited to have April as part of the membership team," states Meda Merritt, AFSA's senior director of membership and chapter development. "She plays an intricate role in providing AFSA members with exceptional customer service."

Rios assists the communications department in advertising, marketing campaigns, creative writing, and publication production. She has a background in agency public relations and client relations. Rios holds a bachelor's degree in journalism with a concentration in public relations from the University of North Texas.

"We are pleased to welcome Clarissa to the marketing and communications team," states Roger Gragg, AFSA's marketing and information technology director. "The knowledge and experience she brings will be an asset to AFSA and its members. She is a great addition to our office!"



JONES



RIOS



WILLS

Wills serves in AFSA's accounting department by managing finances for members, keeping records of invoices, and monitoring all transactions. She holds a bachelor's degree in psychology from the University of Texas at Dallas.

"We were so fortunate to hire Ashley," says Melissa Athens, AFSA finance director. "She has the experience and knowledge we were looking for and brings along an intuitive accounting ability, patience, and sense of humor, all needed for her job. She has done a great job learning our systems and is a significant addition to the team. We are so glad she's here!"

## SCHOLARSHIPS FOR COLLEGE STUDENTS

Through August 31, 2024, eligible college or trade school students can visit [afsascholarship.org](https://afsascholarship.org) to apply for one of AFSA's "second chance" scholarships. Created by AFSA's Public Education & Awareness Committee to raise awareness about fire sprinklers, the fire protection industry, and its careers, the contest is open to those students who want to pursue a college degree or trade school education. The scholarship offers the chance to win one of five scholarships. Applicants visit the website, read a short passage on fire protection and fire sprinklers, and answer questions about the reading. Each correct answer offers one entry into the scholarship contest, with eight entries possible per applicant! Five winners are randomly selected to receive a one-time \$1,000 AFSA scholarship payable to their respective college, university, or trade school. For more details and to enter, visit [afsascholarship.org/secondchance/](https://afsascholarship.org/secondchance/).

## STAY IN THE KNOW WITH *SPRINKLER AGE*

Sign up to receive your own free copy of *Sprinkler Age* magazine—print, digital, or both! Qualified industry professionals can sign up for a free subscription online at [sprinklerage.com/subscribe](https://sprinklerage.com/subscribe). For more information or to view the digital edition, visit [sprinklerage.com](https://sprinklerage.com).

## AFSA ON-DEMAND WEBINARS

AFSA's online learning platform offers 24/7 access to CEUs and/or CPDs from its educational events, including live webinars. AFSA On-Demand offers fire sprinkler contractors and other professionals access to the best in specialty education anytime. These courses are presented by experts in the fire protection industry and are carefully developed to offer convenience and flexibility. Visit [www.firesprinkler.org/ondemand](https://www.firesprinkler.org/ondemand) for details. ■

# CHAPTER NEWS



**CEU training hosted by AFSA's Colorado Chapter at South Metro Fire Rescue headquarters in Centennial.**



**AFSA's Schuylkill Chapter held its annual joint meeting with other industry groups.**

## COLORADO

The AFSA Colorado Chapter held an eight-hour CEU training event on Jan. 9 at the South Metro Fire Rescue headquarters in Centennial. AFSA President Bob Caputo, CFPS, gave a presentation on fire pump and sizing selection, updates to NFPA 20, 2025 edition, and updates to NFPA 25, 2023 edition. Sixty people were in attendance and registrants ranged from a wide range of jurisdictions and contractors. Peerless Midwest sponsored breakfast and lunch for the event. Visit [www.afsacoloradochapter.org/](http://www.afsacoloradochapter.org/).

## LOUISIANA

AFSA's Louisiana Chapter released its meeting schedule for 2024. Mark your calendars for key dates you don't want to miss! Meetings will be held Jan. 30, April 23, July 23, and a golf tournament will be Oct. 28. For more information, contact chapter Executive Director Ellen Ballard at [eballard@firetechsystems.com](mailto:eballard@firetechsystems.com).

## SACRAMENTO VALLEY

The Sacramento Valley Chapter will host its 12th Annual Trade Show at Thunder Valley Casino Resort on March 7 from 3:00 p.m.–7:00 p.m. This event is for owners, contractors, consultants, architects, fitters, engineers, fire department personnel, designers, and all members of the fire protection industry! This event is FREE and showcases over 50 exhibitors, new products, delicious food, a no-host bar, and raffles. For more information and a hotel promo code for reduced room rates, visit [sacvalleyafsa.org/](http://sacvalleyafsa.org/) or contact chapter Executive Director Paulene Norwood via email at [paulenesacvalleyafsa@gmail.com](mailto:paulenesacvalleyafsa@gmail.com) or via phone at (916) 296-0635.

## SCHUYLKILL

The Schuylkill Chapter of AFSA recently held its annual joint meeting with other groups, including NFSA, SPFE, ASCET, and local Philadelphia ABC chapters on Jan. 8. It was a pleasant experience for all participants as they enjoyed a cocktail hour and dinner while taking part in conversations regarding the year's recap and what the organization has in store for 2024. Visit [www.afsapendel.org/](http://www.afsapendel.org/).

## VIRGINIA

AFSA's Virginia Chapter will host a Fire Protection Industry Career Fair on February 24 at 1420 N Parham Rd. in Henrico from 10:00 a.m.–2:00 p.m. Whether you're a seasoned professional or just starting to spark your passion, this event is perfect for all aspiring fire protection experts. Connect with top-notch companies and explore a multitude of job opportunities! From fire sprinkler road warriors to innovative fire safety engineers, this career fair has it all.

Don't let your career go up in smoke! Attend the Virginia Chapter's Fire Protection Industry Career Fair and set your future ablaze! For more information, contact Executive Director Steve McGee via email at [exedirafsa@gmail.com](mailto:exedirafsa@gmail.com). ■

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# ASSOCIATION NEWS

## FSCATX

FSCATX will hold its 1st Quarter Chapter luncheons in February 2024. The Houston meeting will take place on February 7 at the Cadillac Bar, 1802 Shepherd Drive, beginning at 11:00 a.m. The program will be "Differentiating Yourself in a Crowded Market."

The Austin meeting will be held February 8 and begin at 11:00 a.m. at the Frank Fickett Center - Heritage Room, 12500 N Interstate Hwy 35. The program will be "Differentiating Yourself in a Crowded Market."

The DFW meeting will happen on February 15 at 11:00 a.m. at Coppell Life Safety Park, 820 S Coppell Rd. The program will be "Leadership and State of the Fire Sprinkler Industry."

For more information, visit [fscatx.org](http://fscatx.org) or email Executive Director Sarah Kiefer at [sarah@fscatx.org](mailto:sarah@fscatx.org). ■

# AFSA CHAPTERS

## ALABAMA

Lee Seewald – Pres.  
202-252-5101  
Greg Willis – Exec. Dir.  
334-567-4257

## ARIZONA

Jason Williams – Chair  
480-421-8411  
Denniece Cooper – Exec. Dir.  
480-282-5393

## ARKANSAS

Dennis Morrall – Chair  
901-734-4796  
Coleman Farrar – Exec. Dir.  
479-461-3863

## CAROLINAS

Jason Graham – Chair  
919-533-2356  
John Turnage – Exec. Dir.  
919-624-3456

## CHESAPEAKE BAY

Jason Martin – Chair  
410-286-3314  
Danielle Fowler – Exec. Dir.  
410-972-1122

## COLORADO

Roger Wallace – Chair  
719-337-6550  
Kim Cook – Exec. Dir.  
704-213-4368

## DALLAS-FORT WORTH

CJ Bonczyk – Chair  
817-529-1693

## FLORIDA

Bob DiModica – Chair  
239-514-7155  
Jessica Cox – Exec. Dir.  
813-784-3624

## GEORGIA

Allen Cagle – Chair  
770-554-5285  
Tracy Williams – Exec. Dir.  
770-355-0774

## GREATER BAY AREA

Dave Karrick – Chair  
925-417-5550  
Alicia Karrick – Exec. Dir.  
510-398-9185

## GREATER KANSAS CITY

Mark McKenzie – Chair  
913-432-6688  
Brett Heinrich – Exec. Dir.  
785-825-7710

## ILLINOIS-INDIANA

Skyler Bilbo – Chair  
217-342-2242  
Mitch Bortner – Vice Chair  
206-348-0078

## LOUISIANA

Randy Laguna – Chair  
504-464-6236 ext 224  
Ellen Ballard – Exec. Dir.  
318-688-8800

## MICHIGAN

Doug Irvine, Jr. – Chair  
616-784-1644

## MINNESOTA-DAKOTAS

Marc Huag – Chair  
701-232-7008  
Tina Hoff – Exec. Dir.  
701-709-1899

## NEW ENGLAND

Lisa DiRienzo – Chair  
508-298-2134  
Daniel Berry – Vice Chair  
603-890-3331

## NEW JERSEY

Thomas Bowlby, Jr. – Chair  
908-226-5313  
Victor Lugo – Exec. Dir.  
201-635-0400

## NEW MEXICO

Paul Chavez – Chair  
505-898-9197  
Jerrod Towery – Vice Chair  
505-410-4007

## OHIO

Scott Huber – Exec. Dir.  
513-942-1500

## PACIFIC NORTHWEST

Chris Russell – Chair  
360-734-4940  
Ron Greenman – Exec. Dir.  
253-576-9700

## SACRAMENTO VALLEY

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Paulene Norwood – Exec. Dir.  
916-296-0635

## SAN DIEGO

Mark Scott – Chair  
619-778-2377  
Rhonda Gudger – Exec. Dir.  
951-326-4600

## SCHUYLKILL

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732-798-0911  
Meaghen Wills – Exec. Dir.  
610-754-7836

## SOUTH CAROLINA

Tyler Blume – Chair  
864-909-2643  
Ashley McAdams – Exec. Dir.  
864-561-4088

## SOUTHERN CALIFORNIA

Vahe Zohrabian – Exec. Dir., Treasurer  
818-822-1797

## TENNESSEE

Casey Milhorn – Chair  
615-349-5278  
David Pulliam – Exec. Dir.  
901-484-0605

## UPSTATE NEW YORK

Justin Petcosky – Chair  
607-296-7969

## UTAH ROCKY MOUNTAIN

Mark Winder, Jr. – Chair  
385-630-8064  
Brent Heiner – Exec. Dir.  
801-544-0363

## VIRGINIA

Bob Beckwith – Chair  
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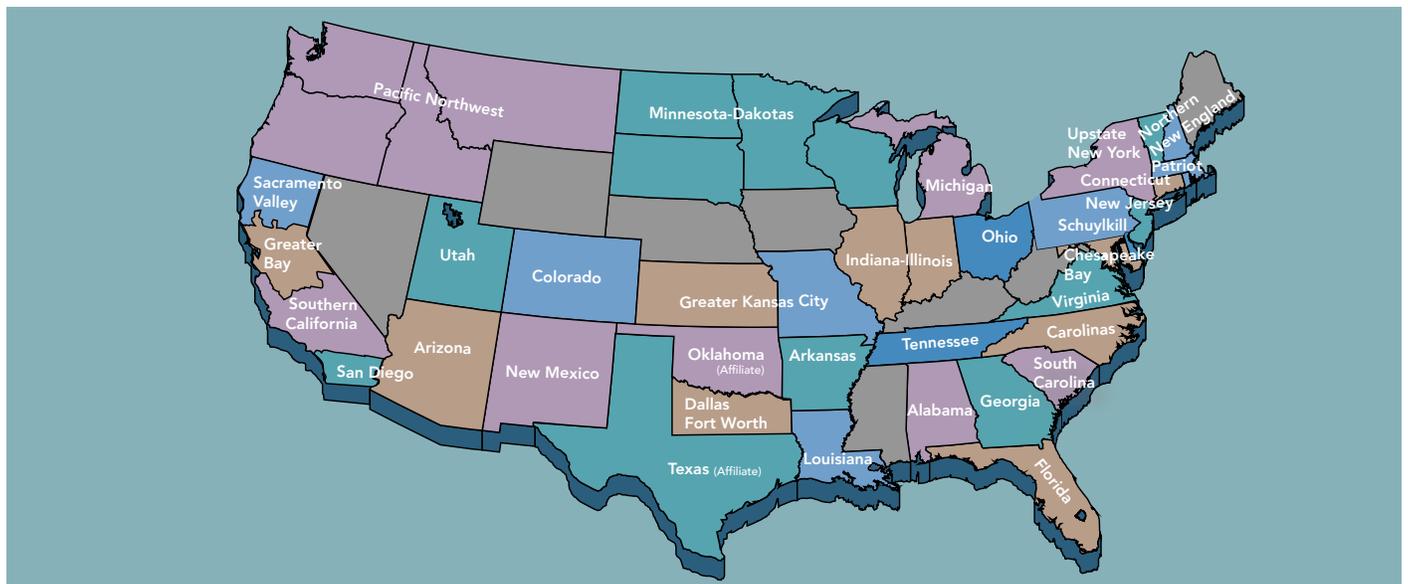
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Sarah Kiefer – Exec. Dir.  
512-844-6632



# U.S. CONSTRUCTION REPORTS

## CONSTRUCTION STARTS DROP 7 PERCENT IN OCTOBER

Total construction starts fell 7 percent in October to a seasonally adjusted annual rate of \$1.1 trillion, according to Dodge Construction Network. Nonbuilding and residential starts fell 32 and 1 percent, respectively. Conversely, nonresidential building starts gained 8 percent during the month.

Year-to-date through October 2023, total construction starts were 4 percent below that of 2022. Residential and nonresidential starts were down 15 and 7 percent, respectively; however, nonbuilding starts were up 20 percent. For the 12 months ending October 2023, total construction starts were down 1 percent. Nonbuilding starts were 22 percent higher, and nonresidential building starts gained 1 percent. On a 12-month rolling basis, residential starts posted a 15 percent decline.

"Construction starts have weakened over the last two months as high interest rates and tight credit have restrained activity," said Richard Branch, chief economist for Dodge Construction Network. "While it seems likely that the Federal Reserve will hold off raising rates further, it will take time until they consider easing. This will likely result in a continued softening in construction starts over the next several months." ■

## CONSTRUCTION STARTS HIT 10-MONTH LOW, DECLINING 15 PERCENT IN NOVEMBER

Total construction starts fell 15 percent in November, dropping to a seasonally adjusted annual rate of \$927 billion, according to Dodge Construction Network. Nonresidential building starts fell 29 percent during the month, residential starts lost 6 percent and nonbuilding starts dropped 2 percent.

Year-to-date through November 2023, total construction starts lagged by 4 percent compared to the previous year. Residential and nonresidential starts were down 14 and 7 percent, respectively, but nonbuilding starts were up 19 percent.

"Construction starts are deeply feeling the impact of higher rates," said Richard Branch, chief economist for Dodge Construction Network. "While the Federal Reserve seems poised to start cutting rates in the New Year, the impact on starts will lag. As a result, starts are expected to be weak through the mid-point of 2024 before growth resumes." ■

### MONTHLY SUMMARY OF CONSTRUCTION CONTRACT VALUE

Prepared by Dodge Data & Analytics

#### MONTHLY CONSTRUCTION STARTS

Millions of Dollars, Seasonally Adjusted Annual Rate

	Oct 2023	Sep 2023	% Change
Nonresidential Building	\$ 489,572	\$ 455,130	8
Residential Building	\$ 385,065	\$ 390,808	-1
Nonbuilding Construction	\$ 231,462	\$ 342,798	-32
Total Construction	\$1,106,100	\$1,188,737	-7

#### THE DODGE INDEX

(2000=100, Seasonally Adjusted)

October 2023.....	234
September 2023.....	251

#### YEAR-TO-DATE CONSTRUCTION STARTS

Unadjusted Totals, in Millions of Dollars

	10 Mos. 2023	10 Mos. 2022	% Change
Nonresidential Building	\$ 344,132	\$ 368,113	-7
Residential Building	\$ 308,537	\$ 363,001	-15
Nonbuilding Construction	\$ 261,124	\$ 216,783	20
Total Construction	\$ 913,794	\$ 947,897	-4

### MONTHLY SUMMARY OF CONSTRUCTION CONTRACT VALUE

Prepared by Dodge Data & Analytics

#### MONTHLY CONSTRUCTION STARTS

Millions of Dollars, Seasonally Adjusted Annual Rate

	Nov 2023	Oct 2023	% Change
Nonresidential Building	\$ 345,332	\$ 484,869	-29
Residential Building	\$ 359,214	\$ 382,278	-6
Nonbuilding Construction	\$ 222,517	\$ 228,213	-2
Total Construction	\$ 927,062	\$1,095,360	-15

#### THE DODGE INDEX

(2000=100, Seasonally Adjusted)

November 2023.....	196
October 2023.....	232

#### YEAR-TO-DATE CONSTRUCTION STARTS

Unadjusted Totals, in Millions of Dollars

	11 Mos. 2023	11 Mos. 2022	% Change
Nonresidential Building	\$ 372,765	\$ 399,774	-7
Residential Building	\$ 335,901	\$ 390,155	-14
Nonbuilding Construction	\$ 278,336	\$ 234,176	19
Total Construction	\$ 987,003	\$ 1,024,105	-4



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New Class Starts Feb. 7, 2024

[www.firesprinkler.org/VIP](http://www.firesprinkler.org/VIP)



American Fire  
Sprinkler Association

# PEOPLE IN THE NEWS

## STANLEY AND SMITH PROMOTED TO NIBCO VICE PRESIDENTS

NIBCO INC. has announced the promotion of Allen Stanley to vice president, fittings manufacturing and distribution, and Rudy Smith to vice president, valve manufacturing.

In this new role, Stanley has responsibility for the Stuarts Draft, Va. manufacturing operations and the Demand Planning department, along with his current responsibilities for the U.S. distribution centers, world headquarters logistics, and all plastic manufacturing facilities. Stanley began his career in 1997 at NIBCO as administrative manager at the Atlanta Distribution Center. He held a variety of roles of increasing responsibility including operations manager at the Elkhart Distribution Center, manager, distribution and transportation, and most recently, director, plastic fittings manufacturing and distribution.

In his new role, Smith will have responsibility for NIBCO's Blytheville, Ark., facility, along with the company's Nacogdoches, Texas, McAllen, Texas, and Reynosa, Mexico facilities. Smith began his career at NIBCO in 1996 in logistics at NIBCO's world headquarters. Two years later, he was promoted and transferred as operations manager of NIBCO's Nacogdoches facility. He held various roles from production superintendent, plant superintendent, plant manager, and most recently, senior plant manager at Reynosa, prior to his new role. Visit NIBCO.com.



STANLEY



SMITH

## JELENEWICZ NAMED SFPE CEO

The Society of Fire Protection Engineers (SFPE) announces Chris Jelenewicz, P.E., FSFPE, as chief executive officer. He joined the staff of SFPE in 2004 and succeeded Nicole Boston, CAE, who served as SFPE's chief executive officer from October 2013 through April 2023.

Jelenewicz has most recently served as the Society's chief engineer and interim chief executive officer, holds degrees in fire protection engineering and management from the University of Maryland, and is a licensed professional engineer in fire protection engineering. A Fellow of SFPE, Jelenewicz is a well-respected and trusted industry leader and will be responsible for the Society's staff and programs, including the 15th SFPE Fire Safety Conference & Expo on Performance-Based Design in Copenhagen, the SFPE Annual Conference & Expo, and the sixth edition of the SFPE *Handbook of Fire Protection Engineering* due out later this year. Additional information about the SFPE, its leadership, and its programs is available at sfpe.org.



JELENEWICZ

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- Made in the USA



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# NEW ITM COURSES FOR 2024!

**View Schedule**

[www.firesprinkler.org/ITM2024](http://www.firesprinkler.org/ITM2024)

If you're a facility manager, contractor, or Authority Having Jurisdiction (AHJs) whose responsibilities include inspection, testing, and maintenance of water-based fire protection systems, then these courses are for you. All courses will be taught using AFSA's new training lab.

## > **Beginning ITM Workshop**

2 Days

Based on NFPA 25, course includes instruction & demonstrations of wet & dry systems, fire pumps, and main drain, dry valve trip, and fire pump no-flow testing.

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## > **Intermediate ITM Workshop**

3 Days

Expertise in inspection & testing frequencies and advanced skills are developed in performing water flow tests & results analysis. Requirements, components, operations, and special considerations for deluge and preaction systems are also included.

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## > **Fire Pump ITM Workshop**

2 Days

Students develop knowledge and skills related to fire pump installations and necessary ITM procedures. They learn key differences between diesel and electric-driven fire pumps, exercises to perform no-flow and full-flow tests, and ITM requirements for water storage tanks are all included.

# PEOPLE IN THE NEWS CONT.

## IN MEMORIAM: HAREL GLEN MILLER

Members of the fire protection community were saddened to learn that Harel Glen Miller, 74, of Marion, Texas, unexpectedly passed away on October 28, 2023. Glen, as he preferred to be called, was born on December 2, 1948, to Harel Gene & Ruth at Fort Sam Houston, Texas. Miller pursued his passion in the fire protection sprinkler industry where he started off as a pipefitter, moving into drawing, then later running his own company. As of late, he had been playing a key role as an RME for a local fire protection company in San Antonio, Texas.

Miller is survived by his wife Linda; his daughter Stephanie and husband Alan Foster; daughter Jennifer and husband Michael Tokarski; granddaughters Juliana and Bethany Foster, brother Jimmy Binion and wife Pat, his niece, nephew, cousins as well as his four-legged friends Jupie and Bo.

A homecoming service was held on November 11 at Marion Baptist Church in Marion, Texas. Miller was laid to rest at Fort Sam Houston National Cemetery. In lieu of flowers, the family requests donations be made to the Marion Baptist Missions fund.



## SFPE ANNOUNCES 2023 FELLOWS, PRESENTS AWARDS

SFPE announces its 2023 class of Fellows and award recipients. Fellow membership represents the highest professional honor of SFPE and is bestowed to individuals who have amassed significant accomplishments and stature in fire protection engineering. SFPE members elevated to the status of Fellow in 2023 include Traci Bangor, PE, FSFPE; Tracey D. Bellamy, PE, CFPS, CWBSP, FSFPE Kees Both, FSFPE; Gilles Carrier, T.P., FSFPE; Flora F. Chen, FSFPE; John Durante, PE, ARM, FSFPE; Joshua Greene, PE, FSFPE; and Moriel Kaplan, PE, FSFPE.

The SFPE "5 Under 35" recipients represent the industry's top rising leaders who give back to both the fire protection engineering profession and the community. The 2023 recipients are Christopher Crivello, PE; William N. Fletcher, PE; Christopher Hallock, PE; Jens Steemann Kristensen, PhD; and Ankit Sharma, PhD.

Additionally, SFPE is pleased to announce 10 award recipients in 2023: Kerry M. Bell, PE, recipient of the SFPE Trailblazer Award; Kees Both, FSFPE, recipient of the SFPE Lund Award for Professional Recognition; Tom Christman, recipient of the SFPE Lucht Award for Contributions to Education; Michael A. Crowley, PE, FSFPE, FASHE, recipient of the SFPE Nelson Award for Inspired Service; Samuel Dannaway, PE, FSFPE, recipient of the SFPE Bryan Mentoring Award; Joshua Greene, PE recipient of the SFPE Jensen Award for Outstanding Committee Service; Keith Lunsford, recipient of the SFPE Spotlight Award; Lori Moore-Merrell, PhD, recipient of the SFPE Fire Protection Person of the Year Award; Craig Vesely, recipient of the SFPE Spotlight Award; and David Vickers, B.Sc., C.E.T., CFPS, RHFAC Professional, recipient of the SFPE Spotlight Award. Visit [sfpe.org](https://sfpe.org).

## NFPA PRESENTS COMMITTEE SERVICE AWARDS

Each year, the National Fire Protection Association (NFPA) Standards Council recognizes individuals for outstanding service to the organiza-

tion in the development of codes and standards through its Committee Service Awards. Awards were presented to 16 individuals at the association's 2023 Technical Session: Dr. Robert V. Albert, Michael Coull, Jason D'Antona, Richard G. Fredenburg, Steven T. Gentry, Wayne B. Geyer, Thomas R. Janicak, Frank J. Mortimer, Amy J. Murdock, Kevin L. Ritz, Samuel A. Rodgers, Michael P. Sheerin, James P. Simpson, James R. Thornton, Michael Tierney, and Steven D. Wolin. For more details, visit [nfpa.org](https://nfpa.org).

## SFPE FOUNDATION ANNOUNCES PRESENTS AWARDS

The SFPE Foundation, a charitable organization focused on enhancing the scientific understanding of fire and its interaction with the social, natural, and built environments, has presented 2023 awards to nine recipients: Bart Merci, PhD, Professor, Ghent University, Belgium; Silvia Arias, PhD, Axel Mossberg, PhD, Daniel Nilsson, PhD, and Jonathan Wahlqvist, PhD; Jacob Derrick, undergraduate student, Glasgow Caledonian University, United Kingdom; Zhuojun Nan, PhD and Pascale Vacca, PhD; and Oluwatobi Gbenga Aluko, Universiti Teknologi Malaysia.

The awards were presented during the 2023 SFPE Annual Conference & Expo. Nominations for the SFPE Foundation's 2024 awards will be solicited in early 2024. Visit [sfpe.org](https://sfpe.org). ■

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## PRODUCT NEWS

### VIKING INTRODUCES OXEO EXTINGUISHING SYSTEM

Viking Group, Inc. offers the expanded Oxexo Extinguishing System, an exclusive inert gas solution for high-challenge fire scenarios due to its use of nitrogen or argon. These two naturally occurring components of the ambient air leave no residue on sensitive electronic equipment and thus result in no secondary damage, making them well-suited for data centers, archives, evidence storage, turbines, diesel generators, and much more.

Oxexo Extinguishing System is cULus Listed and FM Approved to protect Class A, B, and C fires and is suitable for protecting Class D fires due to its use of argon. With tank capacity options ranging from 30, 80, and 110L, 2,901 psi (200 bar) or 4,351 psi (300 bar) pressure ratings, and system options for both pressure-reducing and constant flow, Oxexo provides the industry with electronically non-conductive inert gases that result in no environmental impact. Visit [VikingGroupInc.com](https://VikingGroupInc.com). ■



# INDUSTRY NEWS

## MMIC HEALTH INSURANCE

Reduce your monthly group health insurance cost in 2024 by 20-25 percent! Mass Marketing Insurance Consultants, Inc. (MMIC) is now able to provide your employees with the quality health insurance benefit of a traditional PPO or HSA plan while providing cost savings of approximately 20 percent. Basically, the health plans are level-funded programs providing quality health care without taking on added risks. The advantages are:

- Monthly payments, which are determined upfront and guaranteed not to increase for a full year if there is no change in the number of employees insured.
- You will be assigned a specific person to handle the day-to-day function of your health plan.

This Flexible Health Plan option features:

- Deductibles from \$1,500 to \$7,150;
- Co-Insurance of 100 percent, 90 percent, 80 percent, 70 percent, and 50 percent;
- Multiple office visit options for primary care and specialists;
- Access to large national networks;
- RX co-pays;
- Preventive care; and
- COBRA administration.

If your current health insurance plan renews in the 1st quarter of 2024, contact MMIC to receive a no-cost, no-obligation quote to compare against your group health insurance health insurance plan and see the savings that you can achieve. We also offer PPO, HMO, and HSA plans from traditional health insurance companies. Visit [www.mmicinsurance.com](http://www.mmicinsurance.com) or call toll-free 800-349-1039.

## NASFM SYMPOSIUM SLATED FOR JULY 2024

President Michael Desrochers and the board of directors of the National Association of State Fire Marshals (NASFM) announce the 34th Annual Fire Prevention & Safety Symposium will be held in Kansas City, Missouri, on July 29-Aug. 1, 2024. The event is hosted by Missouri State Fire Marshal, Tim Bean, and the Missouri State Fire Marshal's Office. The theme for 2024 is "Bringing it all together."

NASFM is bringing it all together with plans to present a conference that partners

with two other national organizations, the National Carbon Monoxide Awareness Association (NCOAA) and the International Fire Marshal Association (IFMA), a section of the National Fire Protection Association (NFPA) this year. For more information and to register, visit [firemarshals.org](http://firemarshals.org).



## RIDGID® EXPERIENCE GOES GLOBAL

RIDGID®, a part of Emerson's professional tools portfolio, recently hosted the first RIDGID Experience Europe Edition 2023, an all-expenses-paid, three-day VIP trip to company headquarters in Elyria, Ohio. The event welcomed nine trade professionals from France, Germany, Greece, Italy, Norway, Poland, Romania, and the United Kingdom.

RIDGID Experience Europe included exclusive opportunities and team-building events highlighting the brand's commitment to the trades. Hands-on experiences included a factory tour inviting guests to build their iconic RIDGID customized pipe wrench and time in the research test lab working with innovations in the product development pipeline. RIDGID selected attendees from a pool of hundreds of professional tradespeople. Visit [RIDGID.com/100](http://RIDGID.com/100).

## WINSUPPLY ACQUIRES MILFORD COMPANIES

Winsupply Inc. has successfully acquired Milford Companies, a leading distributor of pipe, valve, and fitting (PVF) and Water Works. Milford Companies has been operating since 1972, supplying materials and rental equipment required for customers' infrastructure needs, with five locations across Texas, Oklahoma, and New Mexico.

Chase Brown, who currently serves as the COO of Milford Companies, will continue leading the company as President. He is thrilled about joining the Winsupply Family of Companies and looks forward to leading Milford Com-

panies through the next phase of their journey. Shawn Beard, the CEO of Milford, will continue to play a pivotal role in the business as an actively involved leader and board of directors member. Visit [winsupplyInc.com](http://winsupplyInc.com).

## SFPE ANNOUNCES 2024 EXPO

The Society of Fire Protection Engineers (SFPE) announces the 2024 SFPE Fire Safety Conference & Expo on Performance-Based Design will be held in Copenhagen, Denmark, April 17-19. The conference is three days of content from global experts on current and future trends in fire regulatory systems for performance-based design.

Conference programming includes over 45 presentations, six case study team presentations, discussion panels, and networking events. Attendees have an exclusive opportunity to visit The Danish Institute of Fire and Security Technology. To register, visit [sfpe.org/](http://sfpe.org/). ■

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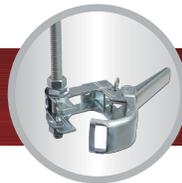
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