



September 24-27, 2023 | Co-Located with IAPMO Conference | Hyatt Regency San Antonio Riverwalk

## 2023 ASSE INTERNATIONAL ANNUAL MEETING SCHEDULE

### SUNDAY, SEPTEMBER 24

- 7am** Golfers Depart for the Roscoe King Memorial Golf Tournament  
*Meet in the hotel lobby to board buses.*
- 7:45am** Arrive at Quarry Golf Course  
*Breakfast and range open to all golfers.*
- 8:30am** Tee Off – Shot Gun Start  
*Scramble format.*
- 2pm - 6pm** Registration Desk & Cyber Café Open @Guadalupe

### MONDAY, SEPTEMBER 25

- 7am - 5pm** Registration Desk & Cyber Café Open @Guadalupe
- 7am - 8:30am** Coffee and Light Breakfast @Regency Foyer  
*Enjoy coffee and breakfast while networking with fellow meeting attendees.*
- 7am - 9am** Conference Exposition @Regency Foyer  
*Exposition of products and services of interest to the plumbing industry.*
- 9am - 11am** Opening Session @Regency Ballroom  
*Call to Order, Invocation, Color Guard, Pledge of Allegiance, Welcome to San Antonio, Texas, CEO Report, Keynote Speaker*
- 11am - 12pm** Business Session #1 @Rio Grande  
*The first Business Session includes year-end reports from ASSE International's officers and directors, chapters, and committees, and includes nominations for the upcoming year's Board of Directors.*
- 12pm - 1pm** President's Luncheon @Garden Terrace  
*Plated lunch hosted by International President Daniel Rademacher.*
- 1pm - 2pm** Service Plumber / Residential Mechanical Technician Technical Committee Meeting @Chula Vista  
*The SP/RM Technical Committee is advisory to the ASSE International Service Plumber / Residential Mechanical Technician Certification program, based on the ASSE/IAPMO/ANSI Series 13000. These meetings will cover topics such as program guidelines, practical exam, test questions, and school requirements.*

**2pm - 3:15pm**

**E.J. Zimmer Technical Seminar: *From Source to Tap: The Complicated and Dangerous Journey of Our Water* – Sean Cleary @Regency FG**

*Most people take for granted when they open a faucet that whatever flows from the tap will be safe to drink and that a never-ending supply of this liquid will always exist. The vast journey water takes and dangers it encounters along the way as it begins as water vapor in the clouds, to rain, to lakes and streams, to the public water source, to the distribution system and to your faucet is a harrowing tale few people understand. During this presentation we will discuss and explore the cross-connection control and backflow problems and pitfalls that befall water systems in the modern world. The backflow protection for these sometimes complex, sometimes simple water systems are vital in protecting and promoting public health. The importance of conserving water and of the fast-growing reuse of fresh and wastewater in plumbing and mechanical systems are important parts of any discussion on protecting and preserving this important resource. What are the cross-connection hazards that exist in water systems and how can we ensure the quality of the product that is delivered to the end user. Finally, we will talk about how the industry should work together as a group to ensure that everyone understands the importance backflow prevention and cross-connection control programs in our world and how to work to provide safe drinking water to all who need it and preserve this life-giving liquid for generations to come.*

**2pm - 3:15pm**

**Education: *Water Demand Calculator Sizing Applications* – Randy Lorge @Regency H**

*Plumbing systems in new home construction are routinely overbuilt, increasing housing costs because the most commonly-used pipe sizing formula is almost 90 years old – developed well before today's innovative low-flow fixtures and appliances came on the scene. Using the IAPMO Water Demand Calculator for new residential construction significantly reduces water aging, delivers hot water faster, generates significant construction cost savings, reduces the carbon footprint of the structure, and subsequently saves on water- and water heating-related energy utility bills for the entire life of the plumbing system. Join us as we apply the Water Demand Calculator and learn how to size water distribution piping with this new revolutionary tool!*

**2:15pm - 3:15pm**

**Fire Protection Technical Committee Meeting @Chula Vista**

*The FPTC (15000/27000) is an advisory committee that provides technical guidance for two ASSE International Fire Protection certifications: Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, and Hybrid Fire Extinguishing Systems Personnel. This meeting will cover topics such as program guidelines, practical exams, test questions, and school requirements.*

**3:30pm - 5pm**

**Education: *IWSH Training and Education: The Legacy, Impact, and Sustainability of IWSH Projects* – IWSH Team @Regency FG**

*Join members of the IWSH team as they discuss recent case studies working with indigenous communities and making training and education an integral component of IWSH projects. Participants will learn about IWSH's evolving work and how they can help support future projects. Attendees will have the chance to win some IWSH swag!*

**3:30pm - 4pm**

**ASSE Membership Committee Meeting @Rio Grande**

*The Membership Committee suggests measures for increasing the value of and numbers in the membership of ASSE International.*

**4pm - 4:30pm**

**Al Cohen Memorial Chapter Presidents' Liaison Conference @Rio Grande**

*The Chapter Presidents' Liaison Conference is a forum for ASSE International chapter presidents, the ASSE membership department, and members. Ideas for taking ASSE Chapters into the future will be discussed.*

## TUESDAY, SEPTEMBER 26

- 7am - 4:30pm** Registration Desk & Cyber Café Open @Guadalupe
- 7am - 8:30am** Coffee and Light Breakfast @Regency Foyer  
*Enjoy coffee and breakfast while networking with fellow meeting attendees.*
- 7am - 9am** Conference Exposition @Regency Foyer  
*Exposition of products and services of interest to the plumbing industry.*
- 8am - 10am** Cross-Connection Control Technical Committee Meeting @Rio Grande C  
*The CCCTC is an advisory committee to the ASSE International backflow certification program. The committee's mission is to ensure that the examinations administered for backflow prevention certifications are up to date.*
- 8:30am - 10:30am** ASSE Product Standards Committee @Rio Grande E  
*The PSC is involved in the development and issuance of ASSE International's product standards. Meetings typically include status reports of draft standards, proposed standards for development, and any issues affecting active standards.*
- 9am - 9:50am** Education: **Effective Communication – Hugh Kelleher @Regency FG**  
*No matter what your job is, a major part of it involves COMMUNICATING. Many people know things. Many don't know how to get their points across. This is a seminar for anyone who wants to improve their ability to communicate effectively. We will consider two of the most important methods of communicating: Written Communication and Verbal Communication. In this short seminar we will look at some simple ways to improve the clarity of your writing. We will also examine ways to maximize your effectiveness when making in-person presentations.*
- 9am - 9:50am** Education: **Engineering Best Practices to Attain Net Zero Energy Building Performance using Heat Pumps with High Mass Heating and Cooling Structures and Advanced Controls – Albert R. Wallace @Regency H**  
*This presentation provides a high-level overview of net zero energy and low carbon technologies, and insight from an engineering perspective into proven system configurations and controls using heat pumps, high mass radiant heating and cooling, and DOAS implemented in dozens of net zero energy buildings.*
- 10am - 10:50am** Education: **Building Performance Analysis: The Quest for Ultimate Efficiency – Markus Lenger @Regency FG**  
*Do you feel a growing frustration throughout the industry because heat pump water heaters are getting a bad rap? Why is that? The technology is sound and they're an excellent alternative to the regular water heater, yet most of them don't work as they should and don't provide the energy and water savings the owner expected. When hired by a major utility to determine the efficiency of heat pump water heating systems, we found that collecting accurate and relevant data was surprisingly difficult. Despite spending a significant amount of time and money on testing different technologies to find the answers our client needed, we found most of them unreliable, proprietary, and expensive and few provided the scope of assets we were looking for. Initially, we set out to create a tool that would measure HPWH efficiency but on our journey found that analyzing a building's performance is becoming increasingly important to reduce running costs and lower carbon footprint. It therefore became imperative to find cost effective, reliable, comprehensive, and traceable data collection technology to assess an entire building's performance. Our challenge was clear - to create a tool that didn't exist that provided us comprehensive building system data for an entire building, in other words the analysis of the Building-as-a-System.*
- 10am - 10:50am** Education: **Standard for Press Connections - IAPMO/ANSI/CAN Z1117-2022 – Ricky Maynard @Regency H**  
*This industry presentation will cover the performance standard developed by the IAPMO Technical Subcommittee and approved by IAPMO Plumbing Standard Committee, for various copper-tube-size and iron-pipe-size press-connect fittings offered in our industry today for materials such as copper, carbon steel, and stainless-steel piping systems used in different market segments including residential, commercial, industrial, and marine shipbuilding. Topics will include technical information about press technology including approved applications, pressure ratings, safety factors, performance, and proper installation procedures.*

**10:15am - 11:45am**

**12000 Technical Committee Meeting @Rio Grande CE**

*The 12000 Technical Committee is an advisory committee to the ASSE International Infection Control, Water Quality and Legionella Specialist certification program.*

**11am - 11:50am**

**Education: Growth of Geothermal Energy Networks in the US and Throughout the World – Jay Egg @Regency FG**

*Geo - Thermal Energy Networks (TENs) are utility scale infrastructure projects that connect multiple buildings into a shared network with sources of thermal energy like geothermal boreholes, abandoned oil and gas wells, surface water, and wastewater infrastructure. This panel will provide insights from across the world on implementation of these energy networks utilizing various strategies and temperature variations.*

**11am - 11:50am**

**Education: Cured-in-Place Pipe for Plumbing Professionals – Tom Bowman @Regency H**

*CIPP application by plumbing professionals is continuously evolving to meet unique needs and challenges. In this presentation, the scope of the need for CIPP is discussed, along with associated advantages to the Property Owners, the Contractors, and the Authorities Having Jurisdiction. Training & education requirements for the successful utilization of CIPP is emphasized. The successful 50-year performance history of CIPP is outlined while discussing methods and materials differences which have evolved (and somewhat diverged) to address challenges across utility, plumbing, and mechanical sectors. An overview of CIPP materials, equipment, and methods advancements to improve plumbing sector performance is detailed. The comparatively recent rapid adoption of light cured CIPP is specifically highlighted while addressing its considerable potential within the plumbing sector. As a focal point of the presentation, the types of imperfections encountered with improper CIPP application or installation are examined with an emphasis on the good practices available for avoidance and for identifying & addressing such challenges should they occur. Specific planning & construction phase practices that reliably improve CIPP project outcomes are emphasized. Current industry efforts to develop improved CIPP contractor training & professional certification requirements are addressed. The need for consensus Inspection Standards with associated training and certification is also discussed.*

**1:30pm - 3pm**

**ASSE Seal Control Board Meeting @Rio Grande CE**

*The SCB is the committee that advises on activities relating to the issuance of the ASSE Seal. Meetings cover topics surrounding the Product Listing Program and product performance testing.*

**1:30pm - 2:20pm**

**Education: Raining In Our Future – Kurt Steenhoek and Dave Stark @Regency FG**

*Do you want to hear how ARCSA/IAPMO are combining forces to bring sustainable solutions to the rainwater industry? Come find out what it means to have ASSE/ARCSA/IAPMO working together on “Raining in our future” through Responsible Harvesting. It’s the right thing to do!*

**1:30pm - 2:20pm**

**Education: Innovative Water Management: The Role of IoT Technology in Achieving Sustainable and Efficient Water Practices – Avishai Moscovich @Regency H**

*As the world increasingly focuses on sustainability and efficient resource management, the plumbing and mechanical industry is presented with a unique opportunity to modernize how water is managed and conserved. The integration of Internet of Things (IoT) technology in water management systems enables real-time monitoring, analysis, and control of water usage, resulting in more sustainable and efficient water practices. This presentation will explore the benefits of IoT technology applied to water management, including its role in achieving net zero water, and its impact on water conservation and efficiency. We will also discuss the critical advantages of IoT water management in smart homes and buildings, including real-time monitoring, leak detection, and optimized water usage. Attendees will gain an understanding of the opportunities and potential benefits of incorporating IoT technology in water management systems, and the impact this could have on the plumbing and mechanical industry, as well as the environment. Join us as we explore how innovative water management with IoT technology can lead to more sustainable, efficient, and cost-effective water usage.*

**2:30pm - 3:20pm**

**Education: *Point of Use Legionella Control* – Troy A. Rackley @Regency FG**

*Understanding the risks associated with Legionella and knowing how to prevent its spread is essential in safeguarding individuals and communities. Increasing awareness involves educating the public about the potential sources of Legionella, such as water systems, cooling towers, and hot tubs, and highlighting the importance of proper maintenance and regular testing to ensure the bacteria's eradication. We can't solve new problems without new innovations in prevention and filtration. By fostering Legionella awareness, we can strive towards creating a healthier and safer environment for all.*

**2:30pm -3:20pm**

**E.J. Zimmer Technical Seminar: *Why Your Shower Feels Wimpy and What You Can Do About It!* – Gary Klein @Regency H**

*Your shower feels wimpy for two reasons, the spray pattern is to spread out for the flow rate or the available pressure at the shower head is too low, or both. Shower head flow rates are measured at a test pressure of 80 psi, yet this is generally the maximum pressure allowed into the building by code. It also turns out that the data we use to estimate the pressure loss in premise plumbing systems is based on a paper published in 1941 which contains research conducted in 1892 which studied steel pipe with threaded and flanged fittings. Modern domestic water systems use copper with soldered or press fittings, CPVC with solvent welded fittings, or PEX with insert fittings. These pipe materials and the associated fittings have very different characteristics from steel pipe. Yet the tables widely used by plumbing industry practitioners have not been updated to account for these differences. The efforts to right-size piping based on real flow rates and probabilities of simultaneous use are being hindered by the lack of up-to-date values. This presentation will present results of research the author has conducted on the pressure drop through modern pipe materials and fittings and through anti-scald shower valves that are now required by most plumbing codes in the United States. We will also compare the performance of pressure-independent and fixed-orifice flow regulators, both types of which are common in faucets and showers, but which perform very differently under the range of pressure conditions found in our buildings.*

**3:30pm - 4:20pm**

**Education: *The Smart Leak Detection Opportunity* – Ian Greene @Regency FG**

*Leak detection devices are becoming standard equipment in homes and businesses, as insurance companies begin to require them and property owners recognize their value. This session reviews the category of products available today, the key demand drivers leading to adoption, regulatory standards and building code implications, and a basic review of how systems are installed and sold.*

**3:30pm - 4:45pm**

**Professional Qualifications Standards Committee Meeting @Rio Grande CE**

*The PQSC is the committee that is involved in the development and issuance of ASSE International's professional qualifications standards. Meetings typically include status reports of draft PQ standards, proposed standards for development, and any issues affecting active standards.*

**6:30pm - 9:30pm**

**ASSE / IAPMO / ARCSA Evening Outing @Enchanting Springs Ranch**

*Buses will begin departing at 5:30pm.*

## **WEDNESDAY, SEPTEMBER 27**

**8:30am - 5pm**

**Registration Desk & Cyber Café Open @Guadalupe**

**7am - 8:30am**

**Coffee and Light Breakfast @Regency Foyer**

*Enjoy coffee and breakfast while networking with fellow meeting attendees.*

**7am - 3:30pm**

**Conference Exposition @Regency Foyer**

*Exposition of products and services of interest to the plumbing industry.*

- 8am - 9am** **ASSE Manufacturers' Forum @Rio Grande W**  
*At the Manufacturers' Forum, participants will have the opportunity to give their constructive input to ASSE's Product Listing Program, discuss issues affecting their industries, and exchange ideas for future progress with staff involved in the listing program.*
- 9am - 4pm** **ASSE / IAPMO Companion Outing @San Antonio Mission Tours, River Barge Tour, Lunch at the Iron Cactus, Shopping at The Pearl**  
*Experience the must-sees of the Alamo City on the Best of San Antonio Tour. Guests will see what makes San Antonio unique, from its iconic historical landmarks to cultural hotspots. The tour will start with a tour of the Missions to see the UNESCO World Heritage Sites. All aboard! After touring the Missions, guests will cruise down the San Antonio River in a chartered river barge. We invite you to relax and take in the picturesque surroundings while learning about San Antonio Riverwalk culture and history. Finally, guests will experience some of San Antonio's history at the Pearl, where they will enjoy free time to explore the unique boutique shops and eateries. (All registered companions are invited)*
- 9am - 10am** **Government Relations Presentation @Rio Grande W**  
*Current public policy initiatives impacting the industry will be presented by the IAPMO Government Relations team along with updates on policy efforts and strategies moving forward.*
- 9:30am - 11am** **Education: 2024 Uniform Plumbing Code Changes – Brian Hamner @Regency FG**  
*The International Association of Plumbing and Mechanical Officials (IAPMO) recently released the 2024 Uniform Plumbing Code (UPC). This presentation will provide a thorough overview of the changes from the 2021 UPC to the 2024 UPC.*
- 9:30am - 11am** **Education: Combustion Air and Combustion Air Accessories – Jesse Kealy @Regency H**  
*This 1.5-hour course is designed to enhance the students' knowledge of the provisions in the UMC Chapter 7 with sizing calculations. Throughout the class students, with the use of hands-on experience training and bookwork, each student should be able to correctly apply the following by the end of the course; The Standard Method, Known Infiltration Rate, Interior Space Calculations, The One Permanent Opening Calculation, and both Two Permanent Opening Calculations.*
- 10:15am- 11:45am** **ASSE Code Development Committee / NFPA Subcommittee @Chula Vista**  
*The Code Committee reviews proposed changes to model codes and recommends voting positions for ASSE International.*
- 11:15am - 12:30pm** **Education: Wet Venting – Rich Harlan @Regency H**  
*A vent that also serves as a drain? Join us as we discuss the 2024 UPC requirements for vertical and horizontal wet venting.*
- 11:15am - 12:30pm** **Education: 2024 Uniform Mechanical Code Changes – Randy Young @Regency FG**  
*The International Association of Plumbing and Mechanical Officials (IAPMO) recently released the 2024 Uniform Mechanical Code (UMC). This presentation will provide a thorough overview of the changes from the 2021 UMC to the 2024 UMC.*
- 1:15pm - 2pm** **ASSE School Forum @Rio Grande W**  
*At the School Forum, participants will have the opportunity to give their constructive input to ASSE's Professional Certification Program, discuss issues affecting their training centers, and exchange ideas for future progress with staff involved in the certification program.*
- 1:30pm - 5pm** **Education: UPC and UMC Workshops @Regency FG**  
*The UPC & UMC Workshop Committees present an opportunity for participants to test their code knowledge and learn from their peers. During the workshops, participants are placed into virtual groups and are given drawings of installations and asked to determine if the systems and components are in compliance with the applicable 2024 Uniform Code. The findings are then presented to everyone in attendance to determine if they are correct and discuss any code issues discovered in the drawings.*

**2pm - 3pm**

**ASSE Board of Directors Meeting @Chula Vista**

*The open ASSE International Board of Directors Meeting typically includes reports from technical committee chairs regarding their meetings held earlier in the week. The meeting also includes any organizational business that needs to be discussed by the Board of Directors.*

**3pm - 4pm**

**ASSE Business Session #2 and Award Ceremony @Rio Grande W**

*The second Business Session includes an election of the ASSE International Officers and Directors, and the International President's address. ASSE International awards will also be presented.*

**6pm - 9pm**

**ASSE Closing Celebration @Rio Grande CE**

*The Closing Celebration is a fun networking event that includes food, cocktails, music, and fun.*