HOUSTON CHAPTER

ASPE Newsletter

Chartered July 10, 1968 | September 2024 | Houston, Texas

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ASPE
American Society of Plumbing Engineers™
HOUSTON

SEPTEMBER 4TH

Dukessa
11:30 am
2840 Chimney Rock Rd, Houston, TX 77056

KEN RUTHERFORD

AMTROL

Topic:
Hydronic and Thermal Expansion Tankls

REGISTER NOW


SUGAR LAND


SUGAR LAND





FORCE
BRAZILIAN
JIU JITSU


Astro
Modelo

SPACE COWBOY
0

30

JAPAN

President

ASPE Houston Newsletter
September 2024

Hello ASPE Houston,

Hello everyone and welcome back! I can't believe that summer is close to being over. By now I'm sure school has started for everyone I hope, and Labor Day is right around the corner. Although I was not able to attend, we had a great turnout at our annual summer outing recently when we re-visited Constellation Field in Sugarland Texas. I believe everyone who made it had a great time and I am sorry to say that if you were unable to join, you really missed out on a sold-out evet. Everyone enjoyed camaraderie, plenty of excellent food, beer and baseball. Many thanks go to Christopher B. Ennis and Maggie for making all the arrangements and putting this event together.

As we officially start our ASPE calendar year, our regular general meetings will be resuming at Dukessa Event Venue on 2840 Chimney Rock Road Starting at 11:30 a.m. on Wednesday, September 4th. Please make plans to join us and see Billy's article for information regarding the speaker and technical topic to kick-off our year. Please so to our official ASPE Houston website and register. Our AYP and WOA Liaisons Michael Balboni and Shannon Yancy are working hard to get their events scheduled. These are always fun events to attend so please be on the lookout. Looking forward to another great year!

I just wanted to mention again, the 2024 ASPE Convention & Expo will be held in Columbus, Ohio on October 18th-October 23rd. For those interested in attending, all the details can be found at https://expo.aspe.org/ . If anyone is interested in getting involved with any of the events that we have in store for this year, please don't hesitate to reach out and shoot me an email or give me a call. Thank You!

Stay safe and see you soon!

Thanks,
Jaime Cruz
President

VP Technical

Dear ASPE Houston Chapter Members,
September 2024,

Hello, all Houston ASPE members, and welcome back to another year of ASPE meetings! I want to extend my heartfelt thanks for reelecting me for a second term as your VP of Tech—it's truly an honor, and I look forward to making this year as successful, if not more so, than the last. I hope everyone had a fantastic summer, and hopefully, some of you got the chance to catch an Astros game at the ballpark—GO Astros! A special shout-out goes to Christopher and Maggie for organizing the incredible summer events for us; your efforts are greatly appreciated!

I'm thrilled to kick off our first meeting of the year by introducing our first speaker, Mr. Rutherford from DC Sales Company. He will be presenting on "Hydronic and Thermal Expansion Tanks," a topic that's incredibly relevant and valuable to all of us in the industry. Mr. Rutherford brings a wealth of knowledge and expertise, and I'm confident that his insights will not only enhance our understanding but also provide practical takeaways that we can apply in our work. Let's give him a warm welcome as we dive into this informative presentation!

If you are interested in presenting or have a technical topic in mind, please contact me at theturciosfam@gmail.com or 832-229-7819.

Thank you,
Billy Turcios
VP Technical

What Is a CEU?

A **Continuing Education Unit (CEU)**, also known as Continuing Education Credit (CEC), is a **vital measure in ongoing education programs**, helping professionals maintain their licenses, or, in ASPE's case, their credential (CPD or CPDT).

The primary purpose of the CEU is to **provide a permanent record of the educational accomplishments** of a plumbing engineer/designer who has completed a significant noncredit educational experience.

CEUs also give plumbing engineers/designers a **means to be recognized as experts in their fields**.

Proving Your CEUs

In most cases, you must succesfully pass a quiz to verify what you learned before CEUs are issued.

For the CEUs to be considered valid for ASPE's purposes, you must obtain a certificate that lists the name of the course and the number of continuing credit units issued.

Acceptable CEUs

Chapter meetings
Webinars
Workshops
ASPE Tech Symposium sessions
ASPE Convention & Expo sessions/walking the floor

Non-Acceptable CEUs

Factory tours
Non-educational Chapter events

education.aspe.org

ASPE
American Society of Plumbing Engineers

VP Membership

Welcome new members: Ciera Blackmon (CFI), Sarvesh Kekatpure (Pinnacle Infotech), Freddie Landaverde (AEI), Himanshu Sanwal (Pinnacle Infotech), Jacob Thomas.

Chapter	Aug-23	Aug-24	YOY
Chicago	275	294	7%
Dallas/Ft. Worth	252	260	3%
Houston	229	244	7%
Wisconsin	163	163	0%
Minnesota	152	155	2%
Central Texas	139	147	6%
Kansas City	123	133	8%
St. Louis	122	127	4%
Omaha	74	76	3%
Oklahoma	75	67	-11%
Arkansas	45	53	18%
Central Illinois	32	31	-3%
Lubbock High Plains	9	11	22%
Region 5 Total:	1690	1761	4%

Curtis Dady
VP Membership

Member Benefit Tips

BOOST YOUR INDUSTRY VISIBILITY

Demonstrate your abilities to lead and boost your industry visibility by volunteering to join your Chapter Board of Directors or apply to join the Society Board of Directors. Employers, clients, and coworkers respect and look up to ASPE Chapter and Society Officers. Without our leaders, we would not have a Society; it's worth the work.

SPECIAL-INTEREST GROUPS

ASPE Young Professionals (AYP) is designed for young industry professionals looking to meet with peers to share experiences, exchange ideas about the plumbing design industry, and network with other Chapter members. The focus of AYP is to help young plumbing engineers, design professionals, and practitioners establish contacts and further the mission of the Society. ASPE members 35 years old and younger are all included in this special-interest group.

The core mission of the Women of ASPE (WOA) is to engage, retain, and advance women in the plumbing design industry, through education, leadership development, and networking opportunities. WOA is committed to bringing together women and assisting them to achieve their professional and personal goals.

MEET POTENTIAL CLIENTS/MEMBERS

If you are an Affiliate member, in sales, who steps up and takes on a membership role, you are in a unique position to promote ASPE and your company. Your leadership role is a valuable way to place yourself in front of prospective clients and members. Talk to your Chapter Board of Directors and see what you can do to promote yourself and ASPE.

Have you checked out ASPE Connect yet?

It's one of ASPE's greatest member benefits!

Our online community, ASPE Connect, is an invaluable resource to help you get expert advice and new insights on your design, career advancement, and product questions. And it's available only to ASPE members!

It's like having a brainstorming session with the world plumbing community.

- Paula Leatherman, CPD, FASPE

How to Get Started

1. **Visit** connect.aspe.org
2. **Sign in.** Your ASPE Connect login information is the same as your login for ASPE.org and ASPE Education. Once you are signed into one site, you are signed into all of them.
3. **Build your profile.** Help your fellow ASPE members get to know you by including a headshot, bio, education, and career history.
4. **Go to the Open Forum** and browse the discussions to add your thoughts to an ongoing conversation or start a new discussion.

Get Connected Today! connect.aspe.org

ASPE Convention & EXPO'24

Columbus, OH — October 18–23

You're Invited to the Largest Event for Plumbing System Professionals

What You'll Find:

- New plumbing technologies from more than 250 global exhibitors
- Practical solutions to your plumbing design challenges directly from product engineers
- A show floor filled with industry experts providing hands-on technical solutions
- New skills from professional development and technical education sessions

250+ exhibitors

4,000+ professionals

25+ sessions

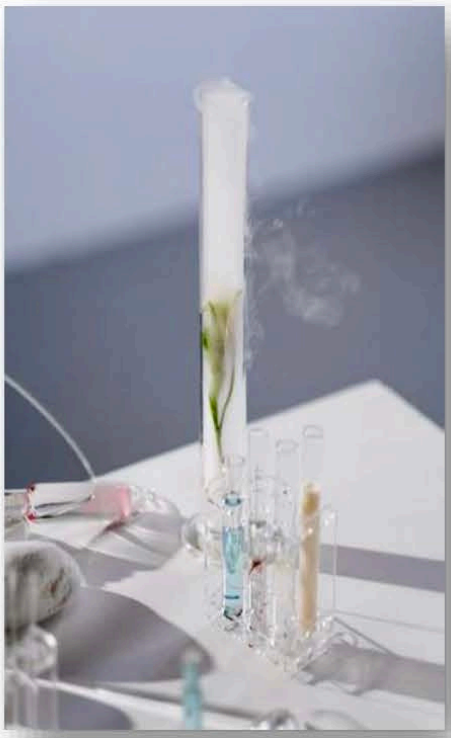
expo.aspe.org

REGISTER NOW!

Back to Basics

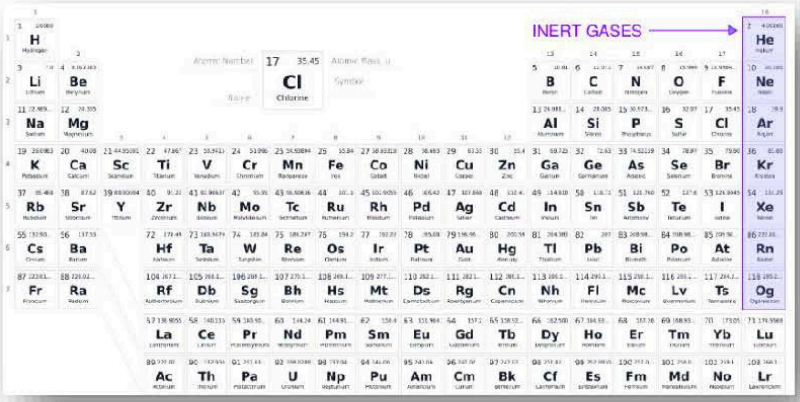
ASPE American Society of Plumbing Engineers

Inert Gases

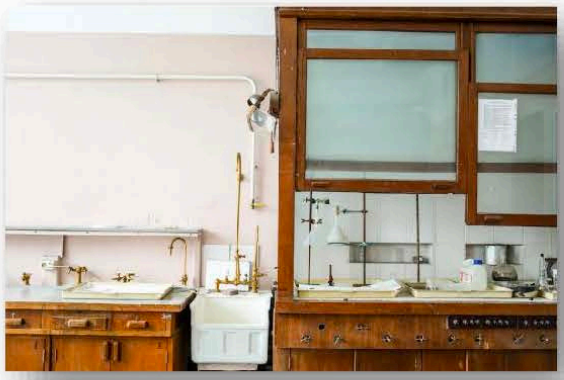


Many laboratories at high education levels, manufactures of food and beverage products, specialized research and test facilities, or production of electronic components, have something in common, they all use: Inert gas systems.

An Inert gas is a non-reactive gas, and it will not have a chemical reaction with any other gas or substance under normal conditions. These gases are also known as Noble Gases, and they are positioned on the right end side of the periodic table. (column 18).



Our industry for this special field has changed
a lot in the last few decades; laboratories do not look the same at all, they are more complex and can handle more gases and substances that differ in temperature, pressure, and how toxic and corrosive they can be. Besides the common fume hoods, or working table gas outlets, there is new additional lab-equipment such as Reactors, Scrubbers, Steppers, Activators, Oxidators, Furnaces, Ashers, etc.



Despite that in multiple municipalities these gas systems are designed by the mechanical trade and installed by pipe fitters and not by licensed plumbers (more frequently in cities where labor unions have a strong presence). However, regardless of who oversees a project's Inert Gas systems design, it is part of the plumbing discipline.

Back to Basics

The inert Gases are Helium (He), Neon (Ne), Krypton (Kr), Argon (Ar), Xenon (Xe), Radon (Rn), and Oganesson (Og). However, it is most likely that we will work the most with Argon, Helium, and Neon, along with other gases that are not the Noble type as Hydrogen, Oxygen, Nitrogen, Air, Carbon-Dioxide, Ammonia, Acetylene, together with their vacuum/exhaust system components.

To reduce the delivery volume of Inert Gases, they are required to be transported in an extremely cold temperature causing them to be delivered in a liquid stage. These are called "Cryogenic liquids" where vessels and piping should be designed according to the American Society of Mechanical Engineers (ASME) specifications, and, by the Department of Transportation (DOT) for the pressures and temperatures codes. Cryogenic liquids require the use of double wall piping, fittings, and specialized valves because these gases have an average boiling point of negative 130°F.
Using components that are not certified for Cryogenic use will result in a leakage failure or conduit blockage due to ice buildup.
A cryogenic system requires a storage vessel, pressure controllers(s), vaporizer(s), and vacuum sealed the double wall tubing in addition to fittings and valves with the right seats compatible to the gas being handled.
Vaporizers convert the cryogenic liquid to its gaseous state, then a control manifold controls the pressure at which the gas is fed to the process, or for distribution.

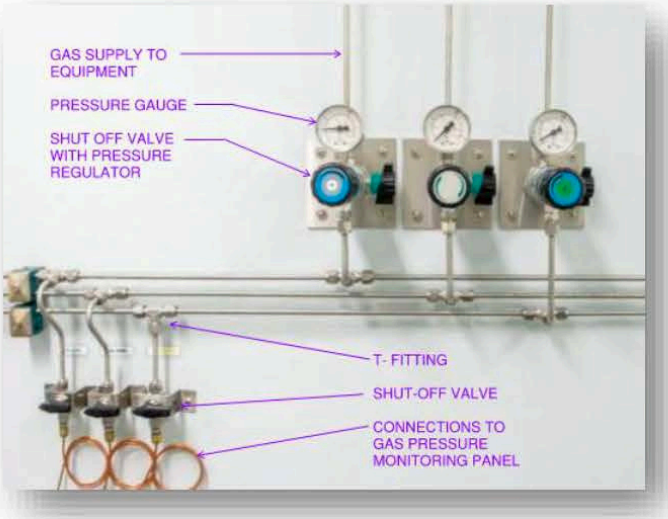
Back to Basics

Even when the use of Inert Gases is in its gaseous state, most of them are produced at an air separation plant by liquefaction of atmospheric air and separation of the inert gas by continuous cryogenic distillation, then it is recovered as a cryogenic liquid.

When the generator and evaporator are on site, the Inert Gas gets piped directly to the building rooms where it is needed; and when it is going to be transported, it could be in the liquid stage or gaseous stage. For liquids Dewar vessels are the best to use and for a gaseous stage multiple types of cylinders/tanks/bottles can be used.

The most used Inert Gas is Argon due to its natural abundance in the air in comparison with He or Ne. Argon is most frequently used for specialized fire extinguishing as it replaces the oxygen in the room. In the food and beverage industry, Argon is often used to displace O2 in wine barrels to prevent oxidation, locking in the flavor and freshness during storage. Argon is denser than air, settling above the liquified food or liquid to protect it from souring. However, two of the most common uses are for welding, and electricity. For welding Argon is used as a shield; a TIG (Tungsten & Inert Gas) welder uses a tungsten electrode to create an arc that will melt the metal. Then, the Argon gas flows through the welded area surrounding protecting the materials from water or oxygen. Aluminum, Magnesium, and Titanium are typically arc-welded with Argon. In the electricity field, this inert gas is used for filling lamps and with combinations of other rare gases for the filling of special bulbs and tubes for special color effects. An Additional application is in the medical field where it is used for precise cryosurgery, to accurately destroy small areas of diseased or abnormal tissue.

Helium is one of the most abundant elements in the universe. It is a very light gas that is mostly recognized for being used in balloons; however, this Inert gas is used a lot for leak detection in systems that appear to be in good working condition, or on pipes and tubes sections that fracture and do not show a visual or sound confirmation for where the fracture location is. This is possible because Helium has a molecular weight of 4, which is 1/7 of Nitrogen that has a molecular weight of 28. Helium is also used in Cryogenics, laser pointers, supersonic wind tunnels, cardiopulmonary resuscitation pumps, magnetic resonance imaging, Scuba diving breathing tank air mixture for deep water diving, and for the creation of superconductivity fiber optics among other uncommon usages. When it comes to welding, Helium produces a higher heat transfer for consistent weld allowing more welding production per hour.



Back to Basics

Neon is another Noble gas heavily used in the production of lightning arrestors, high-voltage indicators, and meter chips; however, it is mostly known for its color changes in fluorescent lamps while being stimulated with electricity.
The name Neon is derived from the Greek word "Neos" meaning "New."
Processing 88,000 pounds of liquid air will produce one pound of Neon.
Liquid neon is a cryogenic refrigerant as well. It has more than forty times more refrigerating capacity than liquid Helium, and three more than liquid Hydrogen.

For an inert gas system plumbing design and specifications, the process starts at the specific gas storage vessel. Either in gas or liquid stage, the substance pressure and flow must be regulated. Each individual gas is provided with specialized components which body and internal parts will not react with the fluid being transported.
Besides tubing and fittings, the most used components are: Shut off valves, pressure regulators, check valves, pressure gauges, check valves, three-way relief valves, bayonet valves, and safety pressure relief valves. To maintain the purity of the gas, check valves are used in multiple locations to avoid contamination of the substance source. To avoid contamination, there is always a valve assembly to allow the gas to be purged process as part of the supply valve train, and when multiple cylinders are needed for the gas system, a manifold/controller is used.
These gas controllers can be manual semiautomatic, and fully automatic. Like most automatic controllers, they are also interlocked with an annunciator panel to let the system administrator that one or a group of cylinders is empty. Normally these systems are doubled (two cylinders, or two sets of cylinders) with only one side always working while the other one is ready on stand-by. Valve systems can be tank mounted, pipe mounted, wall mounted, and equipment mounted. In addition, when a gas vessel and controller are inside a cabinet, a leak detection sensor is needed together with a dedicated cabinet vent pipe.

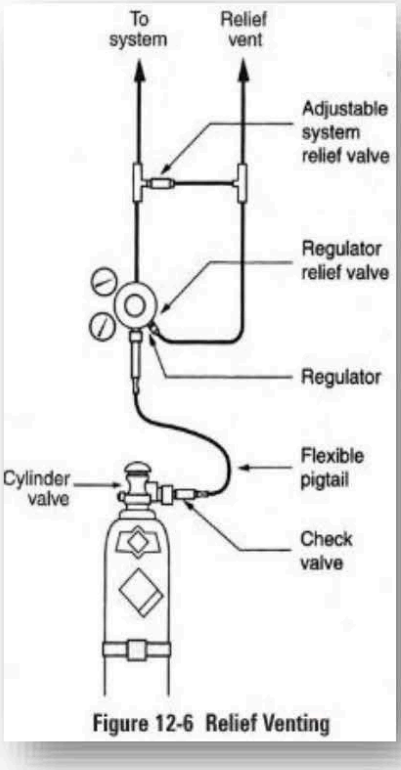


Figure 12-6 Relief Venting

ASPE Design Handbook Vol three contains the information required to size any of these high pressure systems.

If you have any suggestions, questions, or comments, feel free to get in contact with me at: JFDeHoyos@gmail.com

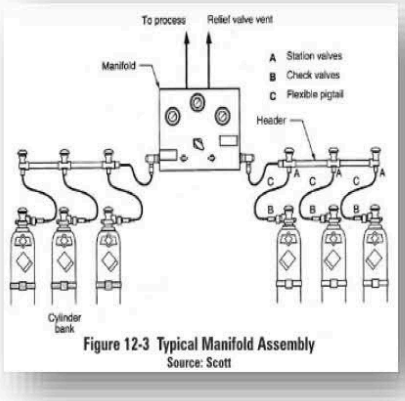


Figure 12-3 Typical Manifold Assembly
Source: Scott

References:
ASPE Design Handbooks, IPC (International Plumbing Code), & UPC (Uniform Plumbing Code)
Los Alamos National Laboratory, U.S. Department of Energy, & Royal Society of Chemistry.

Images thanks to:
pexels.com – Ron Lach, Tianyu Wu, AlpamayoPhoto, Bim, afe-co2, & Tima Miroshnichenko
istockphoto.com – scanrail, Panuat Dangsungnoen, nemoris, genkur, & grafxart8888.

HENDERSON ENGINEERS
J.FRANCISCO DEHOYOS CPD, FASPE
Plumbing Technical Manager

ASPE Houston Chapter
Education Chairman
Aspe Society Education, Legislation & Long Range Committees member

DIAMOND

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COUGAR ☆ USA
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Rheem
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INTERNATIONAL, LTD

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1943
Hydronics and Plumbing Solutions

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SOLUTIONS

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SINCE 1951

Willbanks
THINK BOILER. THINK WILLBANKS.

HMC
HUGH M. CUNNINGHAM COMPANIES
THE MANUFACTURER'S REPRESENTATIVE
A BUILDING PRODUCTS COMPANY
SOUTH CENTRAL USA

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Mike Schuller & Associates

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SOLUTIONS

S S
EQUIPMENT

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PMI
Sales and Marketing, Inc.

GK
GK ENGINEERS

We are pleased to announce that the following industry professionals successfully passed the 2024 Certified in Plumbing Design (CPD) exam and now are eligible to use the CPD designation after their names. The CPD program, which is the only international credential program in the plumbing engineering field, sets the standard for leadership within the industry and provides formal recognition of outstanding professionals with advanced skills in the design and specification of plumbing systems. To learn more, visit aspe.org/education-credentialing/cpd.

Houston Chapter

Zakry Steven Davenport, CPD
Shyam Kumar, PE, CPD, LEEP AP BD+C
Luis E. Hernandez Nava, PE, CPD

Central Texas Chapter

Ricardo Emilio Arana, CPD
Daniel Mark Johnson, CPD
Justin Lopes, CPD
Mark Andrew Sislen, PE, CPD
Jay Sukhadia, CPD

Dallas/Ft. Worth Chapter

Abdelrahman Salama Ibrahim Attia, CPD
Christopher Warren Dike, CPD
Alexey Pislegin, CPD
Jorge Luis Rabago, CPD

American Society of Plumbing Engineers

What is ASPE?

The **AMERICAN SOCIETY OF PLUMBING ENGINEERS** (ASPE) is the only organization dedicated to promoting the plumbing engineering profession to both enhance career opportunities for our members and ensure the health, safety, and well-being of the public through the design of safe plumbing, drinking water, and sanitation systems.

WHAT WE DO

Provide continuing professional education programs

Publish design manuals, tools, and standards

Host conferences, tradeshows, and networking events

Certify professionals skilled in plumbing system design

Promote safe and sustainable water and sanitation systems

Represent the industry in local and national government

Help develop safe plumbing and building codes and standards

OUR MEMBERS

Our members are individuals working in various professions related to plumbing system design.

What Is Plumbing Engineering?

Plumbing engineering is a vital part of the design/build construction process. Plumbing engineers use the principles of fluid flow with engineering calculations to design plumbing systems that transport fluids such as water, wastewater, natural gas, and rainwater throughout buildings.

BY THE NUMBERS

Founded in **1964**

Number of Members Worldwide **6,500+**

13 Elected Board Positions

66 Local Chapters

20+ Technical Publications

2 Special-Interest Groups for Young Professionals and Women

3 Professional Certification Programs

10 Staff Members

INDUSTRY PARTNERS

To achieve our goals, ASPE collaborates with the following organizations:

American Backflow Prevention Association	National Institute of Building Sciences
ARCSA	NSF International
ASHRAE	Plumbing Efficiency Research Coalition
ASSE International	Plumbing Industry Leadership Coalition
Canadian Institute of Plumbing & Heating	Plumbing Manufacturers International
CSA Group	United Association
IAPMO	Water Quality Association
International Code Council	World Plumbing Council

HOW YOU CAN GET INVOLVED

Contact a Chapter

Join Today!

ASPE American Society of Plumbing Engineers

Our Chapters host monthly meetings, golf outings, tradeshows, seminars, picnics, baseball outings, and more fun networking events to help local professionals connect.

Connect with Us

WHAT IS A Plumbing Engineer?

PLUMBING ENGINEERS are a vital part of design/build construction teams for residential, commercial, and industrial facilities. They interact with other construction trades to provide building owners with efficient, functional, and sustainable plumbing systems that protect the health, welfare, and safety of the public and prevent environmental contamination.

WHAT DO PLUMBING ENGINEERS DO?

PLUMBING ENGINEERS use the principles of fluid flow along with engineering calculations to design plumbing systems that transport fluids and gases throughout buildings. Those systems include:


Domestic water systems

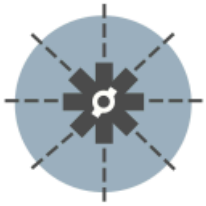

Wastewater


Fuel gas


Medical gas & vacuum


Compressed air

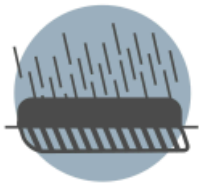

High-purity water


Fire suppression


Chemical waste


Rain & stormwater systems


Venting


Site & building drainage


Water efficiency

WHAT DOES THE PROFESSION ENTAIL?

"The old adage that 'anyone can do plumbing' does not hold water anymore. A diversified and accomplished plumbing engineer is a valuable commodity in the design/build market."

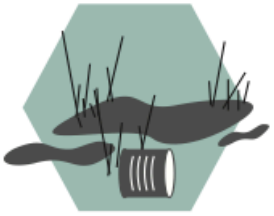
PLUMBING ENGINEERS are highly skilled individuals involved in many different aspects of the design/build process, including:

- PLUMBING SYSTEM DESIGN
- COMMISSIONING
- PROJECT MANAGEMENT
- CODE & STANDARD EXPERTISE
- CONSTRUCTION ADMINISTRATION
- FORENSIC & SUBSURFACE SYSTEM EVALUATION
- BUILDING INFORMATION MODELING (REVIT)
- COST ESTIMATION
- PRODUCT & SYSTEM SPECIFICATION
- PROBLEM SOLVING

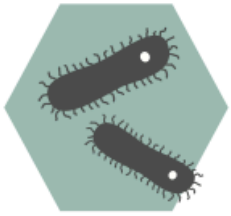
PROTECTING PEOPLE & THE ENVIRONMENT

PLUMBING ENGINEERS help eliminate many of the threats that sicken people and harm the environment on a global scale by:

Delivering safe drinking water & sanitation systems



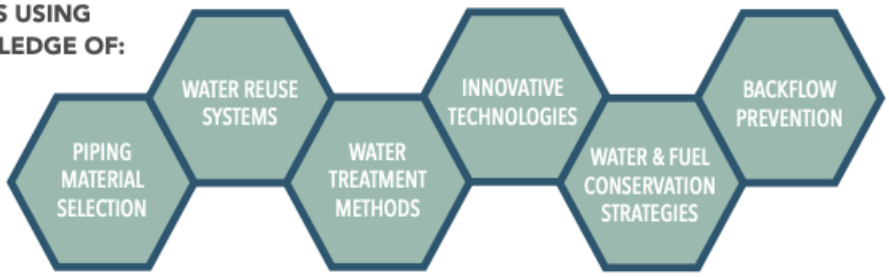
Combating groundwater contamination & depletion



Preventing waterborne diseases

"Through their designs, plumbing engineers affect every life."

THEY DO THIS USING THEIR KNOWLEDGE OF:



HOW TO LEARN MORE

The American Society of Plumbing Engineers (ASPE) is the only association dedicated to promoting the plumbing engineering profession and helping plumbing engineers advance in their careers. Our members have a wealth of knowledge and experience and are ready to help others learn more about the industry.

To discover ASPE and find local contacts, visit:

aspe.org

ASPE
American Society of Plumbing Engineers™

Connect with Us

Special Interest Groups

Women of ASPE

Shannon Yancey

We are pleased to announce that Shannon Yancey wit Caleffi North America has agreed to take on WOA Chair for our Houston Chapter. We are excited to have her part of the team and she will have some exciting events lined up soon for our Women of Aspe!

ASPE Young Professionals

Michael Balboni

The ASPE Young Professionals (AYP) special interest group is designed for young industry professionals looking to meet with peers to share experiences, exchange ideas about the plumbing design industry, and network with other chapter members. The focus of AYP is to help young plumbing engineers, design professionals, and practitioners establish contacts and further the mission of the Society. ASPE Members 35 years old and younger are all included in this special interest group.

ASPE YOUNG PROFESSIONALS®

Hey!

Learn more about our group!

ASPE Young Professionals (AYP) is dedicated to the needs of plumbing engineers and designers 35 years old and younger. Your local ASPE Chapters have been busy organizing exciting opportunities designed to help you excel in your career, including:

- Partnerships with other associations
- Social and networking events
- Educational offerings
- Mentoring programs

And more!

ASPE
American Society of Plumbing Engineers™

Exclusive AYP Sponsor
ZURN

To learn more about the ASPE Young Professionals special-interest group, email **ayp@aspe.org** and visit **aspe.org**.

ASPE YOUNG PROFESSIONALS

KIRBY ICE HOUSE
"A Neighborhood Pearl"

Good Times!

September

Dinora Adame G.E.
Juan Banuelos
Robert Cardenas
Don Childers
Cole Christy
Tony Cole
Frank Colon
Daniel Lopez
David Eoff
Tony Green
Louis Hernandez Nava Pe, CPD
Frank Hersom
Darrell McGill

Alvin Nguyen
Brian D. Peterson P.E.
Mary Phelps
Victor Rodriguez
Eleana Romero
Zaheed Syed
Angela Vinson
Gary Wylie P.E.

In accordance with the IAPMO Regulations Governing Committee Projects, IAPMO would like to announce that a tentative interim amendment (TIA) to the 2024 edition of the Uniform Mechanical Code (UMC®) is being submitted for public comment.

UMC TIA 003-24 revises text in the 2024 edition of the UMC, Table 1102.3 (Refrigerant Groups, Properties, and Allowable Quantities), regarding values for Refrigerant Concentration Limits (RCLs) and Lower Flammability Limits (LFLs) of listed refrigerants. The comment form is located at codes.iapmo.org/docs/2024/UMC/TIA/Submit%20Comment%20Form%20(TIA%20003-24).pdf.

IAPMO invites all interested parties to review the proposed TIA on the IAPMO website under Uniform Mechanical Code/Proposed TIAs and respond by filling out the comment form.

The deadline to submit comments is September 5. Completed forms may be emailed to Taylor Duran, the UMC Staff Liaison, at taylor.duran@iapmo.org.

INFINITY
MEP+S CONSULTANTS
BRINGING PASSION TO ENGINEERING

CAREERS SUBMISSION

FOR ASPE:

Infinity MEP+S Consultants is Growing! And we Need YOU!

We are always looking for top talent to join our team, and now more than ever.

Positions available across Texas in Austin, Dallas, Houston, and San Antonio.

Opportunities Include:
Plumbing Designers, Mechanical and Structural Engineers!

Industries, Verticals, and Skills We're Looking for in Resumes:

- Healthcare Projects
- Higher Education Projects
- Laboratory & Life Sciences Projects
- Med-Gas
- Revit

Have any of the above? Ready for a change? Ready to grow?

Then join the team at Infinity MEP+S and work with us as we continue bringing passion to engineering across all types of projects - including commercial, industrial, oil and gas, higher education, science and technology, healthcare, high-rise residential, mission critical, and more.

Submit your resume TODAY to careers@infinitymep.com

Career Opportunities

Wylie Engineering is hiring! We are looking for Plumbing Designers with experience in building construction plumbing and fire protection systems design. Come join our dynamic team in our Houston office! Wylie Engineering has a strong history of serving the architectural and construction community in Houston, Austin, and across Texas – currently celebrating our 35th anniversary! Our portfolio includes diverse and interesting projects ranging from healthcare, lab, high-rise residential, commercial office, higher education and many more.

Primary areas of responsibility include providing design concepts for plumbing and fire protection systems, coordinating design with project management and other disciplines, and production of system designs using AutoCAD & Revit.

Certified Plumbing Designer (CPD) is preferred, but not required.

Please submit resumes to HR@wylieeng.com.

Career Opportunities

Garner·Fritsche ENGINEERING, INC.

GFE has an opening for a Lead Plumbing Designer!
This is a Great Opportunity to grow your professional career at a firm with a solid reputation in the Healthcare industry. Our team is committed to a high standard of quality work and personal development. Our culture supports longevity, a true team atmosphere, and strong work ethic. GFE has been a Leader in Houston Healthcare Engineering for 18 years.

Lead Plumbing Designer Position Minimum Requirements:
5+ years experience in Plumbing design and understanding of commercial Plumbing systems including system layout and sizing. 3 years HealthCare project design experience. Med Gas System design. Self-motivated. Able to manage your own work schedule.

Benefits:
Competitive Salary and Bonus. Hybrid work schedule - 3 days in the office, 2 days from home.
Health, Dental, and Vision Insurance. 401k with matching.
7 paid Holidays. 3 weeks PTO.

Please submit resumes to: afritsche@garnerfritsche.com.

Career Opportunities

LEAF Engineers is a frontrunner for success in providing comprehensive mechanical, electrical, and plumbing, technology, and fire protection engineering design services. Our engineers are focused on system performance, reliability, flexibility, and ease of maintenance. Our work typically consists of large commercial projects, primarily award-winning K-12 schools. With an emphasis on teamwork, we reach beyond the traditional MEP approach to solve problems and integrate a more holistic style to our processes. Within LEAF, you will find a fast-paced environment with many opportunities to learn and accelerate your career.

LEAF Engineers is searching for a candidate to fill the Plumbing Engineer/Designer position. You will aid the engineering team in developing plumbing calculations, and plumbing system designs of gas, water, and waste systems.

Your Impact:
- Produce reports/drawings using calculations and specifications for various buildings
- Utilize client requirements and specifications to generate consistent drawings to meet their needs
- Assist senior engineering staff support in equipment selection through project calculations and equipment research
- Assist in the evaluation and equipment selection for the design of plumbing system components and apply standard engineering procedures
- Aid in areas that require consulting on feasibility reports and sustainability analyses
- Work with team to design plumbing systems like sanitary, water, gas, storm, medical gas, fire protection

Here's What You'll Need:
- Associate degree in Mechanical Engineering or related engineering technology degree preferred
- 3-5 years of work experience with an engineering consultant
- Proficient in Revit 2022 and AutoCAD 2021

Here's How You'll Stand Out:
- Licensed Professional Engineer
- CPD – Certified Plumbing Designer
- Ability to self-assess and command a high level of accuracy
- Strong oral, written, and communication skills
- Excellent time-management and organizational skills

Reasonable accommodations may be made to enable individuals with disabilities to perform essential functions. LEAF is an equal employment opportunity employer. It is our policy to provide equal employment opportunity in all phases of employment in compliance with applicable federal and state laws, rules, and regulations.
#OS #FT #AS

ASPE Mentoring Program

This program, which is available to all members of the Society, has been designed to connect ASPE members who have a particular skill set (mentor) with individuals (mentee) who are searching to acquire the same skills to develop and make progress toward their personal and professional goals.

Who Is a Mentor?

A mentor is someone who can help the mentee develop skills for success and long-range career planning, is able to be a good listener, is willing to share experiences and views, is willing to commit time and effort, provides an "open door" to questions and problems, points out both strengths and opportunities for improvement, and has a vested interest in the growth and development of their mentee.

Benefits to the mentor:

- Satisfaction in helping someone mature, progress, and achieve goals
- Meeting and sharing experiences with other mentors
- Personal ongoing support to help the mentee succeed
- Personal fulfillment through contribution to the Society and the individual

Who Is a Mentee?

Having a mentor can contribute to a successful and satisfying career. Without a mentor, that learning occurs mostly through trial and error. With a mentor, even experienced professionals can benefit from the experiences and expertise of someone who has withstood the trial and can help the mentee avoid the mistakes. Similarly, those new to the industry will discover that being a mentee shortens the learning curve for acquiring the skills and knowledge most critical to a fruitful career.

Benefits to the mentee:

- Discover new talents about yourself
- Career satisfaction
- Expand your personal network
- Maximize your strengths

connect.aspe.org

ASPE
American Society of Plumbing Engineers™

Committee Members

Dave Cropper
Chapter Affiliate Liaison, Construction Industry Council

Francisco DeHoyos, CDP, FASPE
Society legislation committee co-chair, Society education committee member, Society long-range committee member Region 5 legislation representative, Houston Chapter Education Chair

Donald Taylor, CPD, GPD, FASPE, ASSE 6060
Board of Governors, Society Education Committee

Zed Hernandez
Webmaster, Newsletter Editor/ Social Media Director

Greg Salter / Jaime Cruz
Product Show Chair/ Co-chair

Curtis Dady
Region 5 Affiliate Liaison

Chris Ennis, CET
Chapter Social Director

HOW TO BECOME AN ASPE VOLUNTEER

Recognize Leadership and Professional Growth Opportunities Through Participation in ASPE

ASPE
American Society of Plumbing Engineers™

Participation in ASPE

As the voice of the plumbing engineering industry, ASPE is sought out to provide the latest technical and legislative information as well as education and career growth opportunities for plumbing system design professionals. ASPE is dedicated to the advancement of the science of plumbing engineering, to the professional growth and advancement of our members, and to the health, welfare, and safety of the public, but we need the experts—our members—to help fulfill those goals. Your practical experience and knowledge will help ASPE provide top-notch service for our ASPE family members and other industry professionals worldwide.

Becoming involved is not a one-way street. Volunteering provides you with resources to keep up with the technical aspects of our industry. You will make new contacts and increase your voice. You also will have direct influence on plumbing engineering and become a recognized leader in the industry.

Here are some ways you can get involved to help foster technical innovation and professional advancement.

Become a Mentor

ASPE's new Mentoring Program is designed to connect ASPE members who have a particular skill set (mentors) with individuals (mentees) who are searching to acquire the same skills to make progress toward their personal and professional goals. Mentors gain satisfaction and personal fulfillment while helping others discover new talents and grow in the industry. To learn more, go to **https://connect.aspe.org/aspe-mentor-match/mentoring**.

Run for National Office

Every two years, Chapter delegates vote on the 12 national officer positions. Serving on the ASPE Board of Directors is the highest level of volunteerism and marks individuals as achieving the pinnacle of leadership within the Society. To learn more about becoming a candidate, review the Guide to the Board of Directors Nomination Process on the members-only page: **https://www.aspe.org/membership-global-community/membership/members-only/**.

Join Your Chapter Board of Directors or a Committee

With more than 60 ASPE Chapters worldwide, volunteering at the Chapter level is one of the easiest ways to become involved with ASPE. Volunteering at the Chapter level helps you develop a better understanding of how the Society functions and how to receive the most benefit from your membership, while also contributing to the betterment of ASPE.

ASPE's Chapters are run by dedicated individuals who provide high-quality technical and networking opportunities for local industry members. Many levels of participation are available: positions range from being the newsletter editor or golf outing chair to vice president, technical and president. By becoming a Chapter leader, you will increase your presence in your local area while helping others grow and succeed.

To learn about the roles of Chapter officers, go to **https://education.aspe.org/products/chapter-officer-training-video**.

If you aren't ready to join the Chapter Board of Directors, volunteering for a Chapter committee is the perfect way to get your feet wet. Contact information for your local Chapter can be found at **https://www.aspe.org/membership-global-community/chapters/**.

Serve on a National Committee

ASPE's Committees provide the backbone to the Society's operations. Committees are responsible for providing input on policies and procedures regarding everything from ASPE's technical publications and educational programs to the career growth of special-interest groups. Membership in the following Committees is available:

- Membership Committee
- Technical & Research Committee
- Education Committee
- Legislative Committee
- Long-Range Planning Committee
- Nominating Committee
- Bylaws Committee
- Finance Committee
- Credentialing Committee
- Main Design Standards Committee
- ASPE Young Professionals
- Women of ASPE
- Convention and Exposition Committee
- Technical Symposium Committee

To apply for a national Committee, just fill out the application found here: **https://www.aspe.org/membership-global-community/committees/**.

Share Your Expertise

Volunteering doesn't necessarily mean a long commitment. Several opportunities are available to share your knowledge and skills on a short-term basis.

- You can review and revise a chapter in one of the four Plumbing Engineering Design Handbooks, which are updated annually. Contact **gpienta@aspe.org**.
- You can present a one-hour webinar on a technical topic of interest to plumbing engineers. Contact **education@aspe.org**.
- You can write an article for ASPE's members-only publication, ASPE Journal, or Plumbing Engineer magazine. Contact **gpienta@aspe.org**.
- You can present a technical session at either the Technical Symposium or the Convention. Sessions range from 75 minutes to three hours. Contact **education@aspe.org**.

ASPE's Board of Directors and staff appreciate you volunteering and providing your knowledge and experience for the betterment of the Society, the advancement of plumbing engineering, and the protection of the public's health and safety. Thank you for your support.

Houston Amendments to the 2021 Uniform Plumbing Code

Adopted by Ord. No. 2023-907[1]

Passed October 25, 2023[2]

Effective January 1, 2024[3]

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1. The City Secretary shall insert the number of the adopting ordinance.
2. The City Secretary shall insert the date passage and approval of the adopting ordinance.
3. The City Secretary shall insert the effective date of the adopting ordinance.

Connect with us on Social Media!

ASPE Purpose

The core purpose of the American Society of Plumbing Engineers is to continually enhance and promote the profession of plumbing engineering design while assisting in improving the health, welfare, and safety of the public on a global scale.

ALBERT STERLING & ASSOCIATES, INC.
www.albertsterling.com

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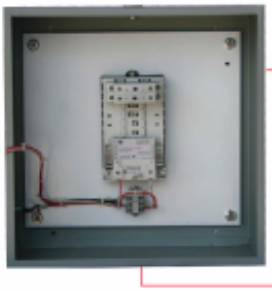

Student Work Stations
120 Volt Electrical Outlets

HOUSTON PUBLIC WORKS

HOUSTON CONSTRUCTION CODE MODERNIZATION

SIGNIFICANT CODE CHANGES & HIGHLIGHTS OF THE 2015 TO 2018 AND 2018 TO 2021 UNIFORM PLUMBING CODE (UPC)

Download presentation

DOWNLOAD

HOUSTON PUBLIC WORKS

BUILDING CODE ENFORCEMENT
2024 CITY OF HOUSTON CONSTRUCTION CODES

The following are the current construction codes enforced by the City of Houston.

Code	Publisher	Effective Date
2021 International Residential Code (with Houston Amendments)	ICC	*January 1, 2024*
2021 International Building Code (with Houston Amendments)	ICC	*January 1, 2024*
2022 Minimum Design Loads & Associated Criteria for Buildings and Other Structures (ASCE-7)	ASCE/SEI	*January 1, 2024*
2021 International Fire Code (with Houston Amendments)	ICC	*January 1, 2024*
2021 International Existing Building Code (with Houston Amendments)	ICC	*January 1, 2024*
2021 Uniform Mechanical Code (with Houston Amendments)	IAPMO	*January 1, 2024*
2021 Uniform Plumbing Code (with Houston Amendments)	IAPMO	*January 1, 2024*
2021 Swimming Pool and Spa Code (with Houston Amendments)	ICC	*January 1, 2024*
2023 National Electrical Code (State Mandated) • Administrative Code Provisions (Effective January 1, 2024)	NFPA	*September 1, 2023*
Sign Code (Chapter 46 of the Houston Building Code)	COH	*July 29, 2020*
2021 International Energy Conservation Code (with Houston Amendments) - *For One and Two-Family Dwellings and Multi-Family 3 stories or less.*	ICC	*January 1, 2024*
2021 International Energy Conservation Code (with Houston Amendments) - *For Commercial Structures, including Residential Structures more than 3 stories*	ICC	*January 1, 2024*
ASHRAE 90.1-2019 (with Houston Amendments) – *For Commercial Structures, including Residential Structures more than 3 stories)*	ASHRAE	*January 1, 2024*
2021 Code Words - various sections interpreted and administrative policies	COH	*N/A*

- *The enforcement of Chapter 11 of the International Residential Code became mandatory by state law effective September 1, 2016.*
- *The enforcement of the IECC-Commercial Provisions became mandatory by state law effective November 1, 2016.*

ICC International Code Council
500 New Jersey Avenue, NW
6th Floor, Washington, DC 20001
(888) 422-7233
http://www.iccsafe.org

IAPMO International Association of
Plumbing and Mechanical Officials
4755 E. Philadelphia St
Ontario, CA 91761
(909) 472-4100
http://www.iapmo.org

NFPA National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02269
1 (800) 344-3555
http://www.nfpa.org/

ACCESSIBILITY
For regulations pertaining to Accessibility, please contact:

Texas Department of Licensing & Regulation
Compliance – Architectural Barriers
PO Box 12157
Austin, TX 78711

877-278-0999 Toll-Free Number
512-463-6599 Voice Telephone
512-539-5690 Fax Number

For Technical questions Contact:
E-mail: Techinfo@tdlr.texas.gov
Phone: 512-569-5669
https://www.tdlr.texas.gov/ab/abtas.htm

The Houston Amendments to the Codes, the Sign Code, and 2021 Code Word can be downloaded at:
https://www.houstonpermittingcenter.org/help/codes

HOUSTON PERMITTING CENTER
1002 Washington Avenue, Houston, TX 77002
Main Line 832-394-9000

MECHANICAL, ELECTRICAL, AND PLUMBING PLAN REVIEW

PLUMBING

SPILMAN, STEVE Plan Analyst Supervisor 832-394-9174

LEWIS, BOBBY Sr. Plan Analyst 832-394-9175

LOGAN, RUSSELL Sr. Plan Analyst 832-394-9176

PARROTT, DANNY Sr. Plan Analyst 832-394-9185

SPELL, CASSIDY Sr. Plan Analyst 832-394-9524

WARREN, RICHARD Sr. Plan Analyst 832-394-9182