

ASPE DFW Newsletter

January 2024



President: Brett McQueen, CPD

Election Year 2024 ! As you know in past years, we've held elections annually and this year we will migrate towards two-year terms to allow for smoother board transitions. Elected positions are listed below, and we'd love to see some competition this year.



President
VP Technical
VP Legislative
VP Membership
Treasurer
Administrative Secretary
Corresponding Secretary

Engineers Week is Feb 18th-24th and to promote ASPE's recognition we'd like to challenge you to give a presentation to your colleagues, college students, or to a local K-12 school. Presenters will be provided with a \$100 gift card once your event has concluded and your information is submitted to the chapter.

To learn more, visit [Engineers Week \(dfwaspe.org\)](https://dfwaspe.org).

President Brett McQueen, CPD
bmcqueen@ssr-inc.com

VP Technical Brittainy Tidwell, PE, CPD LEED AP
vptech@dfwaspe.org

VP Membership Keith Davis
vpmembership@dfwaspe.org

VP Legislative Ben Tate
vplegislative@dfwaspe.org

Treasurer Melanie Willhite, FPE, CPD
mwillhite@ssr-inc.com

Admin Secretary Erin Hollingsworth
Erin.hollingsworth@hts.com

COMMITTEE POSITIONS

AYP Chair

Yolanda Mashni
ayp@dfwaspe.org

WOA Chair

Kendra Barnes
kendra.barnes@rehau.com

Social Media Chair

Kendra Barnes
kendra.barnes@rehau.com

Education Chair

Mike Danielson
mdanielson@rwb.net

Webmaster

Tim Campbell
timc@mgec.com

Newsletter Editor

Curtis Dady
curtisd@pmireps.com

Fund Raising Chair (Events)

Erin Hollingsworth
erin.hollingsworth@hts.com

Product Show Chair

Anthony Gonzalez
agonzalez@onco-tx.com

Historian

Jim Vertz, CET, FASPE
rowlett10@verizon.net

Affiliate Liaison

Luke Martin
luke.martin@viega.us



With Greg Swafford's return to engineering the spot opened for a new Region 5 Affiliate Liaison and I have volunteered to fill the vacancy. Brett suggested that I introduce myself and while doing so I would like to raise vision for the role Affiliates play in their chapters.

What is an Affiliate Liaison? Chapter AL's represent the Affiliates to the Chapter Boards of Directors and Regional AL's represent the Affiliates to the Regional Directors. This gives the Affiliates a voice for any concerns that they may have. This organization is built around engineers and designers but with the realization that it cannot function without Affiliate members.

Who am I? I work for PMI Sales as a Texas based manufacturer's rep. that calls on engineers. I have been an ASPE member since November of 2003. I call the Houston chapter "home", but I am also a member of the Dallas/Fort Worth (Fort Worth/Dallas??), and Central Texas chapters.

I transitioned from the industrial marketplace in 2003 and can't say enough about the benefits ASPE membership had for speeding the process of immersing me into my new industry. I have come to LOVE ASPE and have a passion for seeing others develop the same appreciation that I have for the Society.

Making presentations, I have visited at least (8) Chapters (Chicago, NY City, Kansas City, Tampa, etc.) around the nation and I can tell you one thing for certain...it takes YOU, the Affiliate, to make these things run. If you want to have good attendance by the engineers and designers, which is the reason you have joined in the first place, it is necessary to have good events to gain their interest. In order to have well run and interesting events, it necessarily takes involvement from Affiliate volunteers...that's you...that's us!

Various roles I have served:

Houston Chapter newsletter editor 2006 to 2021

Houston Chapter VP Membership 2022 to present

DFW Chapter Newsletter Editor 2023 to present

ASPE Society Legislative Committee

Product Show Chairman and/or Committee Member for the Houston Chapter's annual Product Show

If you are an Affiliate, ask yourself "how can I help to make this a better Chapter?" and consider reaching out to your Board of Directors to volunteer. Whenever making your rounds, talk up ASPE membership and participation from the engineers and designers when you are meeting with them. Just this week I recruited a new prospect while conducting a presentation. I have (4) slides at the beginning of my presentation to talk about the benefits of ASPE membership and one of the items I push hard is the ASPE Connect forum where they can get ideas and solutions, when needed. "If it helps you one time a year that is worth the \$200 cost of membership."

When recruiting volunteers I have often heard "but I don't have the time". My response is "how do you not have the time?" If your job is to connect with engineers and designers, helping your chapter to "rock" is one of the best ways to do that and to be recognized as one of the people making it happen. You can see from my resume that I have invested a lot of time in ASPE. There is a reason for that, and I encourage you to participate, and to reap the benefits for yourself!

Cheers!

VP Membership: Keith Davis



Welcome new members! Jessica Diaz (Jordan & Skala), and Caleb Torres.

The DFW Chapter Board of Directors appreciates help from each of you for recruiting colleagues and contacts to the ASPE DFW Chapter!

Chapter	22-Jan	23-Jan /OY	% change
Chicago	269	285	6%
Dallas/Ft. Worth	225	268	19%
Houston	214	231	8%
Wisconsin	121	157	30%
Minnesota	159	148	-7%
Central Texas	120	136	13%
St. Louis	110	129	17%
Kansas City	121	120	-1%
Oklahoma	73	72	-1%
Omaha	75	72	-4%
Arkansas	37	48	30%
Central Illinois	33	30	-9%
Lubbock High Plains	11	9	-18%
Region 5 Total:	1596	1705	7%



BATTERY REQUIREMENTS

Catching up with the energy industry



In most vehicle shops, either professional or as part of a high school shop, there is a place where batteries are stored and/or recharged. The most common way to store batteries is by stacking them in vertical racks. The location for these racks has a few requirements to meet from different codes: NFPA, OSHA, Electrical, HVAC, and Plumbing; as well as the Electrical Safety Foundation International (ESFI).

When batteries are stored, they have the possibility of leaking, releasing toxic fumes, setting themselves on fire and even exploding in situations where its storage room with poor ventilation or in a location that is exposed to high temperatures.



To comply with the most common risk “Battery leakage” the Plumbing code requires that a dedicated Acid-resistant floor drain is provided for the storage area which will be discharging into an acid neutralizer before connecting to the building waste system; therefore, piping and joining methods for drainage and vent systems have to be corrosion resistant to the Battery acids and the chemicals that might be used to put out a fire in case one or more battery cells get ignited.

These drainage requirements are covered by the IPC and UPC codes under “Special Wastes”.

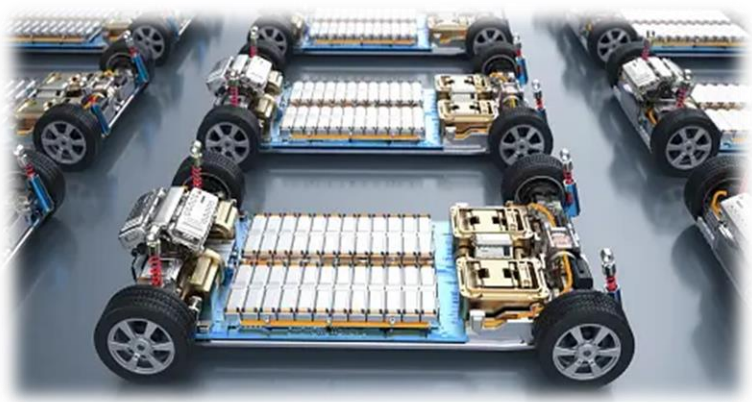
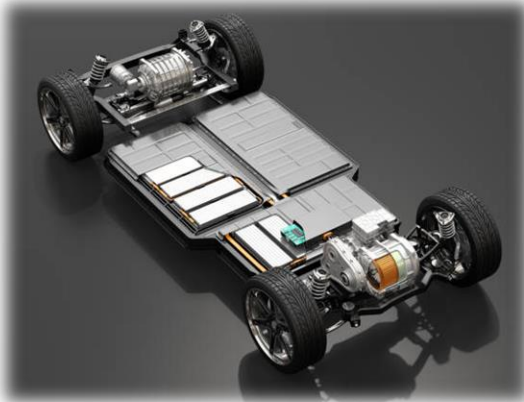
Nowadays Batteries have expanded their range of applications, they are no longer limited to automobile and minor voltage equipment. Its use has become a necessity for the modern robotic industry. Its usage varies tremendously, from medical equipment to warehouse distribution and storage logistics.



The industry in general has set a goal of reducing CO2 emissions by avoiding the use of combustion as a source of energy, instead, they are switching to environmentally friendly energy sources. Because of this trend, the use of batteries is increasing exponentially, and now all the **Autonomous equipment** fully depends on **portable energy**. This creates a need for most type of buildings to have storage for back up batteries. Even some equipment has a dedicated emergency battery energy generator.



The automotive industry is going through its own energy evolution. This change is compatible with the change that the auto industry experienced when the vehicles went from steam propulsion to gasoline...





The Ugly side

Despite the advances in energy technology, our current solutions for fire protection are not ready for fires created by defective batteries or recharging stations. Mainly due to wrong use or malfunction car batteries will ignite setting themselves on fire. The problem is that if one battery starts burning, the rest of them will catch fire as well. Currently, firefighters are not

equipped to put out this type of chemical fires that easily; because even when it looks like the fire is finally controlled, another battery soon starts burning to create a very dangerous situation for first responders; therefore, in most situations they let the vehicle to be totally consumed by the fire until it puts itself out.

The acquisition of electric vehicles and the use of e-bikes and e-scooters as a means of alternative transportation for work and recreational activities and not fully following the manufacturer's instructions pose a major fire risk while charging or storing. This issue has created a well-founded fear that a fire caused by a vehicle battery may extend to the neighbor vehicles or properties.



To avoid extensive losses, HOA's (Home Owners Association) are starting to request that these Electric vehicles and charging stations be located outside of the building even if the parking area/space is prepared with a fire protection system.



In conclusion, where Batteries are stored or get recharged due to the possibility of a corrosive leakage, a drainage neutralizing solution is required; in addition to that the risk of an explosion will require the provisions for an emergency shower/eye/face wash.

Per NFPA provisions to control an electrical fire shall be provided.

ESFI is providing free safety information and resources to help reduce the risk of injury and damage to property when storing and charging lithium-ion batteries.

Resources for electric vehicle owners:

- [Understanding Electric Vehicles tip sheet](#)
- [Electric Vehicles: Charging Options and Safety tip sheet](#)

Resources for e-bike and e-scooter owners:

- [E-Bike and E-Scooter tip sheet](#)
- [Lithium-Ion Battery Safety tip sheet](#)
- [Safety with E-Bikes and E-Scooters webpage](#)

References:

IFC, NFPA ESFI, IPC & UPC

Pictures: by: Kumpan Electric, Oxana Melis, & Andreas Rasmussen on Unsplash.com

Chesky_W. Sergeyryzhov, Vanit Janthra, Coffeekai, Zigmunds Dizgalvis, vkyryl, simonkr & PhonlamaiPhoto on iStockphoto.com

J. Francisco DeHoyos, CPD, FASPE.
Plumbing Technical Manager.



jfdehoyos@gmail.com



ASPE Central Texas Chapter, VPL.
ASPE Houston Chapter, Education Chairman.
ASPE Society Legislative Committee, Member.
ASPE Society Education Committee, Member.
ASPE Society Long Range Committee, Member.



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



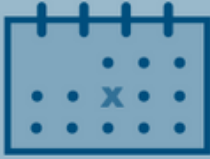
OUR MEMBERS

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!



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





Message from Brianne Hall, PE, CPD | ASPE VP Legislative | ASSE International Region 8 Director

NFPA 99-2024 is available and includes the language below referencing ASSE 6060 - Medical Gas Systems Designer. Thank you to those who supported the development of the professional qualification standard, supported the training, the exam development process and supported the inclusion within NFPA 99.

"5.1.3.3.2 Design and Construction

5.1.3.3.2.1 Medical gas and vacuum systems shall be designed by one of the following:

- (1) A party technically competent and experienced in the field of medical gas and vacuum system design and meeting the requirements of ASSE/IAPMO/ANSI 6060, Professional Qualifications Standard for Medical Gas System Designers
- (2) A party deemed technically competent through other qualification(s) deemed sufficient by the health care facility's governing body"



Did You Know ASSE 6060 Will Be Required in NFPA 99?

In August, the NFPA Standards Council approved the 2024 edition of NFPA 99: Health Care Facilities Code, which includes a new stipulation for medical gas system designers to meet the requirements of ASSE 6060. To help you stay ahead of the curve, ASPE now offers an online medical gas training course in partnership with MedGasCards.com. The self-paced, 32-hour course fulfills the training requirement for ASSE 6060 and also offers 1.2 ASPE CEUs. You can start your training at MedGasCards.com.



CERTIFIED IN PLUMBING DESIGNSM

CERTIFIED IN PLUMBING DESIGN (CPD), administered by the American Society of Plumbing Engineers (ASPE), is the only international certification program specifically for engineers and designers of plumbing systems. Professionals who have the CPD credential are considered to have the highest level of skills in the design and specification of plumbing systems.

EARNING & MAINTAINING THE CPD CREDENTIAL

Am I eligible?

Route 1:

4 year engineering degree + 4 years of work experience designing plumbing systems

Route 2:

8 years of work experience designing plumbing systems

Other eligibility options:



Current CPDT certification counts toward 1 year of experience

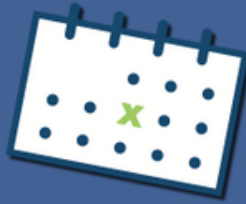


PE license counts toward 2 years of experience

When can I take the exam?



The exam is held **annually** in the spring



Registration typically opens in December prior to the exam date



You can register online at education.aspe.org

Where do I take the exam?

The CPD exam is held at **online testing centers** around the world



Did I pass or fail?

Scores are **mailed** 6 to 8 weeks after the exam



Maintaining your CPD credential

- ✓ You must earn 24 hours of continuing education every 2 years
- ✓ You can find recertification details at aspe.org/education-credentialing/cpd/recertification/

For more info:

aspe.org/education-credentialing/cpd/
or email certification@aspe.org





2024 CPD Exam Dates: April 15–26

The CPD Exam

To be eligible to take the CPD Examination, a candidate must possess:

Full ASPE membership or previously received approval to sit for the exam starting November 22, 2021; or

A minimum of four years of experience in a position of responsibility for the design of plumbing systems and possess a baccalaureate degree in a field related to engineering; or

In lieu of an accredited degree, a candidate may substitute up to an additional four years of practical experience in the design of plumbing systems, for a total of eight years, or be granted a credit of one-half year of practical experience for each full year of education in an accredited curriculum related to plumbing engineering.

CPDT Certification counts towards 1 year of experience.

Here's more about the CPD Examination:

[General exam FAQs](#)

[Exam open book policy FAQs](#)

[2023 CPD Bulletin](#)

The exam is [remote proctored](#).

[CPD eligibility form](#)

The 2024 CPD Exam fees are:

ASPE Members \$450

Nonmembers \$675



CPD REVIEW CLASS



Instructor: Donald Taylor

CPD REVIEW CLASSES:

MARCH 2ND AND 3RD

10 AM – 3 PM (VIRTUAL)

MOCH EXAM: MARCH 30TH

10 AM – 3 PM (VIRTUAL)



REGISTER TODAY

For more information contact Donald Taylor
at donald.taylor@crbgroup.com or
Call 405.406.0548

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:

$$S = \frac{\text{rpm}\sqrt{Q}}{\text{NPSH}^{0.75}}$$
$$x 2.31 - h_f, L_f + \frac{(P_B - V_p)}{\text{Specific gravity}}$$



Domestic water systems



Wastewater



Fuel gas



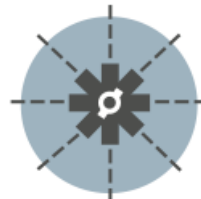
Medical gas & vacuum



Compressed air



High-purity water



Fire suppression



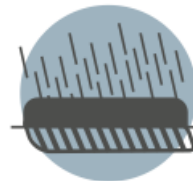
Chemical waste



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:

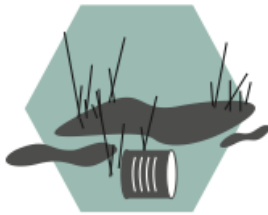
PLUMBING SYSTEM DESIGN	COMMISSIONING
PROJECT MANAGEMENT	CODE & STANDARD EXPERTISE
CONSTRUCTION ADMINISTRATION	FORENSIC & SUBSURFACE SYSTEM EVALUATION
BUILDING INFORMATION MODELING (REVIT)	COST ESTIMATION
PRODUCT & SYSTEM SPECIFICATION	PROBLEM SOLVING

PROTECTING PEOPLE & THE ENVIRONMENT

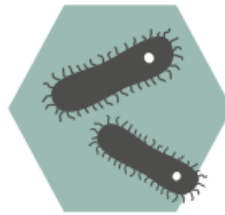
PLUMBING ENGINEERS help eliminate many of the threats that sicken people and harm the environment on a global scale by:



Delivering safe drinking water & sanitation systems



Combating groundwater contamination & depletion

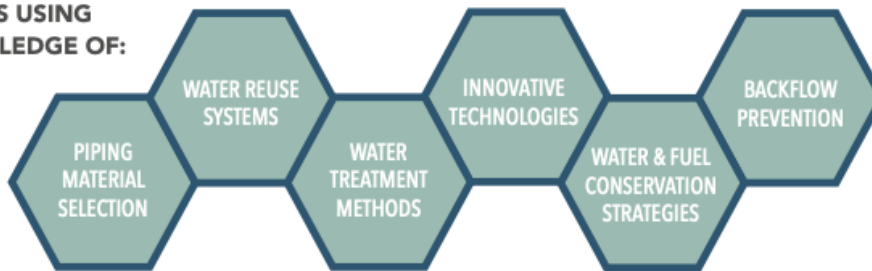


Preventing waterborne diseases



"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



Connect with Us



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

