



Chicago ASPENews



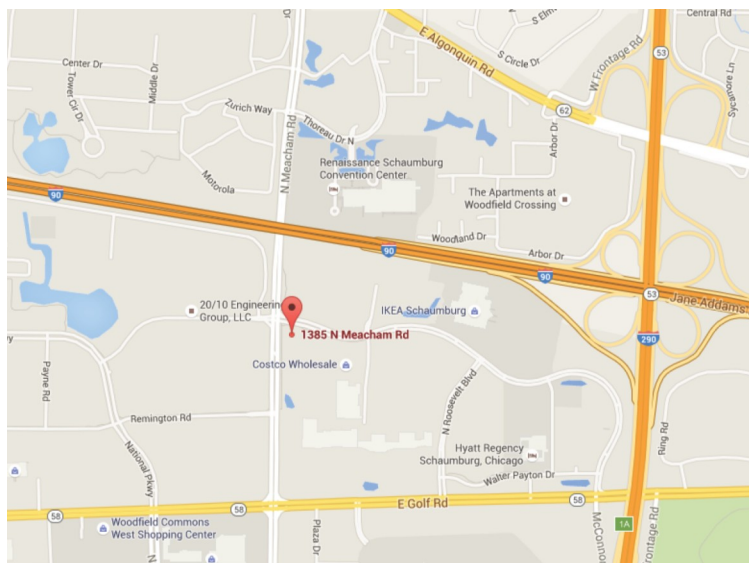
Chicago Regional Chapter of the American Society of Plumbing Engineers
Vol. 48, No. 10
May, 2017



Chicago Chapter General Meeting Thursday May 18, 2017



Westwood Tavern & Tap
1385 N. Meacham Road
Schaumburg, IL 60713



AGENDA

- 5:30pm Cocktail Hour (Cash Bar)
- 6:30pm Dinner, (\$35 ASPE Members with RSVP/\$40 Non-Members and Walk-ins)
- 7:15pm **Manufacturer Spotlight:** Leak Detection by Paul Stanek with Pentair
- 7:30pm **Presentation:** Designing Laboratory Supply Systems for Flammable and Oxidizing Gases by Richard Green with Concoa (0.1 CEUs Available!)

Don't Miss Election Night!!



RSVP as soon as possible to April Ricketts, VP Technical!

- ◇ Call: 312-346-5000
- ◇ Email: Chicago.ASPE.RSVP@gmail.com
- ◇ Go to Chicago.aspe.org and RSVP!

MENU

Appetizers:

- Bruschetta
- Pepperoni Flatbreads

Starters:

- Tomato Basil Bisque
- House Salad with Balsamic Dressing

Entrées:

- Chicken Madeira
- Grilled Vegetables
- Red Skinned Mashed Potatoes

Dessert:

- NY Style Cheesecake

Drinks:

- Soft Drinks, Coffee and Tea

Local chapters are not authorized to speak for the Society



Chicago ASPENews



2016-2017 Preliminary ASPE Chicago Meeting Schedule

Date	Technical Presentation & Manufacturer Spotlight	CEU	Location
July 30, 2016	ASPE Chicago Chapter Summer Outing Arlington Race Track	N/A	Arlington International 2200 West Euclid Avenue Arlington Heights, IL 60006
September 22, 2016	ASPE Chicago Product Show (See attached Flier for a list of Technical Seminars)		Meridian Banquet & Conference Center 1701 W Algonquin Rd Rolling Meadows, IL
October 20, 2016	Presentation Topic: Hot water Temperature Maintenance Speaker: Mark Hall with Pentair Mfr Spotlight: LabWaste CPVC Corrosive Drainage Systems Speaker: Ron Leamon with Spears Mfg.	0.1	La Villa Restaurant 3632 N Pulaski Rd Chicago, IL
October 28 thru November 2, 2016	ASPE National Convention, Phoenix, AZ		Phoenix Convention Center 100 N 3rd St, Phoenix, Arizona 85004
November 17, 2016	Presentation Topic: The Role of Copper Silver on a Multi-barrier Approach to Water Quality and Disease Prevention Speaker: Chris Ebner with Liquitech Mfr Spotlight: Froet Roof Drains and Downspout Nozzles Speaker: Craig Froeter with Froet Industries	0.1	Athena Restaurant 212 S Halsted St Chicago, IL
December 15, 2016	Chapter Membership Appreciation Booster Night	N/A	La Villa Restaurant 3632 N Pulaski Rd Chicago, IL
January 19, 2017	Presentation Topic: High Rise Plumbing Considerations Speaker: David DeBord with dbHMS Mfr Spotlight: Heat Recovery from Wastewater and Sewage Speaker: Rick Lawlor with International Wastewater Systems	0.1	**Note New Location!** Venuti's 2251 W. Lake Street Addison, IL
February 16, 2017	Presentation Topic: The Mechanics of Design: Wall-Mount Concealed Tank Toilet Systems Technology. Speaker: Mark Scharf with Geberit Mfr Spotlight: TBD Speaker: TBD	0.1	Westwood Tavern & Tap 1385 N. Meacham Rd Schaumburg, IL
March 16, 2017	Presentation Topic: Benefits and Considerations for Graywater Treatment and Reuse in Facilities Speaker: David Starck with RMS and Nate Nickerson with Critical Flow Mfr Spotlight: Sensor Technology Speaker: Conrad Haller with Moen	0.1	La Villa Restaurant 3632 N Pulaski Rd Chicago, IL
April 20, 2017	Presentation Topic: Water Heater Solutions and Best Practices Speaker: Paul Rohrs with Lochinvar Mfr Spotlight: ASHRAE 90.1, Domestic Water Pre-Heating Systems Speaker: Mark Kaulas with Bornquist	0.1	Venuti's 2251 W. Lake Street Addison, IL
May 18, 2017	Presentation Topic: Designing Laboratory Supply Systems for Flammable and Oxidizing Gases Speaker: Richard Green with Concoa Mfr Spotlight: Leak Detection by Pentair	0.1	Westwood Tavern & Tap 1385 N. Meacham Rd Schaumburg, IL
June 16, 2017	Annual Golf Outing	N/A	Hilldale Golf Club 1625 Ardwick Drive Hoffman Estates, IL

If you would like to present any of these topics or become a meeting sponsor, please contact April Ricketts at ASPE.Chicago.VPTech@gmail.com.



PRESIDENT'S MESSAGE

From the President,

The upcoming May meeting is a meeting that should be attended by all members if possible. This month is election for the 2017-2019 term. All members are eligible to run for a board position if they are members in good standing. If any member is interested, please send me an email a minimum of (1) one week prior to our monthly meeting.

This month we will be distributing anniversary pins for members who have achieved membership of 5 consecutive years or more. Refer to the V.P. Membership article further in the newsletter for a list of membership anniversaries.

I would like to give a huge thanks to the current and past board members who I had the pleasure of serving with over the past 12 years. I want to thank you for volunteering your precious time with family and your unending commitment to the chapter and the society. It has been a pleasure to serve with you and I will always consider you as friends first and secondly as devoted colleagues.

Thanks to all the affiliates who I had the pleasure to meet and become great friends with over the past 20 years. Thanks for all your support for the chapter. Your commitment to the society will never go unnoticed!

IMPORTANT UPCOMING DATES

- CPDT Fall exam registration opens June 26th 2017
Registration closes September 15th 2017
Exam Date is October 5th 2017
- 2017 ASPE Technical Symposium
The symposium will take place this year in Montreal Quebec Canada
- 2018 ASPE Convention and Exposition
The convention will take place September 28th through October 3rd in Atlanta Georgia.

INTRODUCTION TO PLUMBING AND GAS SYSTEMS FOR MEDICAL FACILITIES

I found a great online course for those who are interested in medical gas design. The author of the course is J. Paul Guyer, P.E., R.A., Fellow ASCE, Fellow AEI. A link to download the course material for free can be found here: [Introduction to Plumbing and Gas Systems for Medical Facilities](#).

Some of the subjects or topics covered in the course material are presented below:

- Plumbing systems
- Waterborne pathogen prevention/control
- General design considerations
- Potable water supply system
- Backflow prevention
- Domestic hot water systems
- Plumbing fixtures and other equipment
- Sanitary drainage system
- Medical Compressed Air (MCA)
- Laboratory Air (LA)
- Storm water disposal
- Fuel gas service
- Medical gas systems
- Gas System Sources (Storage)
- Alternative Compressed Air Sources
- Color Coding and Labeling
- Medical Gas Systems Outlets
- Emergency Power Source

Continued on next page...

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FOLLOW US ON:



PRESIDENT'S MESSAGE CONTINUED...

FOR THE YOUNG ENGINEERS AND DESIGNERS

SOME QUESTIONS ASKED ABOUT FOR MEDICAL GASES IN HOSPITALS

1. What is the use of nitrogen in hospitals?
Nitrogen (Medical Liquid Nitrogen) Nitrogen is a medical gas used for cryosurgery removal of some cancers and skin lesions, and also for the storage of tissues, cells, and blood in cryogenic temperatures to avoid oxidation of the samples. It can also be used as part of the medical gas mixture for lung function tests.
2. What is medical air used for in hospitals?
Medical air is used for a variety of patient applications. Medical air is also used during anesthesia as a substitute for nitrous oxide to reduce the high concentration of oxygen exposure. While the source of medical air may be a manifold with a bank of compressed air cylinders, most hospitals use a compressor system.
3. What is medical air used for in hospitals?
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4. What is surgical air?
Medical Air & Surgical Air. Medical Air is generally supplied by a centralized compressed air plant to patient care areas using clean outside air. Pressures are maintained around 4 barg. Medical air can be used as surgical air when the pressures are raised to 7 barg.

NFPA 99 STANDARD FOR HEALTHCARE FACILITIES

The NFPA 99 (National Fire Protection Agency) Standard for Healthcare Facilities is the code by which healthcare facilities in the United States design their compressed air systems. The NFPA 99 Standard covers many requirements for medical gases.

The National Fire Protection Association, or NFPA, has set a standard for health care compliance rules and regulations. Any time a facility is considering installing gas for use in an establishment, there are codes that must be followed and safety measures to be taken to provide a safe environment.

For more information on codes, inspections, and safety measures feel free to check out the NFPA 99 website yourself. You should note that your local area conditions may apply differently per states regulations and policies. It is always important to have, and know, all the facts before having medical gas installed in a facility for the safety of the medical staff, patients, visitors, as well anyone outside of the area.

NFPA 99 establishes all the criteria to be met for various levels of medical establishments to provide a safe environment for the medical teams, patients, and any structure or persons in the surrounding area. Using medical gas in the wrong fashion can create serious consequences, even the possibility of fires and explosions. A copy of NFPA 99 as well as other NFPA Codes and Standards can be purchased at <http://www.nfpa.org/catalog>.

DR. CHAD SOLOMON WITH ROUND LAKE HIGH SCHOOL

We are still looking for any interested member in the chapter available to make a presentation to Dr. Solomon's students. Anyone interested please contact me at their earliest convenience.

PRODUCT SHOW IN SEPTEMBER

The board is planning for the upcoming Chicago Product show in September. It was announced at the March and April meetings that the official venue for the product show will be at the New Plumbers 130 Union hall in Chicago. Affiliates please start thinking about becoming one of the first to sign up for our annual product show.

Continued on next page...

PRESIDENT'S MESSAGE CONTINUED...

The next product show meeting will be held on May 10th from 6:00pm to 8:00pm at Deery-Pardue & Assoc; 1000 Industrial Dr., Unit 2A, Bensenville, IL. Details will be provided via e-blast to members from our Administrative Secretary. Please keep a lookout in your email concerning the date.

APRIL MEETING RECAP

I would like to thank Paul Roars with Lochinvar on his main presentation on Water heater solutions and best practices and thanks again to Mark Kaulas and Chris Wisinski from Bornquist on their spotlight presentation on "Domestic water pre-heating systems". Thanks again to Lochinvar who sponsored the happy hour!

ADVERTISEMENT IN MONTHLY NEWSLETTERS

The chapter will now be providing affiliates and anyone interested in the opportunity to advertise their products in the monthly newsletter.

RONALD MCDONALD HOUSE

We will be collecting the Ronald McDonald house paper houses at the golf outing in June and will be distributed to Ronald McDonald house. Thanks to all who have kindly participated.

ARCSA SEEKS EDUCATION COMMITTEE MEMBERS

This new committee will work on projects to inform and educate the public in the areas of rainwater, storm water, and water quality. Contact info@arcsa.org for more information or to apply.

NEW IAPMO LEARNING CENTER WEBSITE IS LAUNCHED

At the redesigned iapmolearn.org you can register for live classes, take online courses, register for and attend webinars, keep track of your training history with IAPMO, and add training from other providers.

WHAT IS AYP? WHO CAN BE INVOLVED?

The 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.

To receive additional information on ASPE Young Professionals or to sign up to be part of the group, please contact Pam Rosenberg, ASPE Staff Liaison to ASPE Young Professionals Special Interest Group, 224-217-9016 or prosenberg@aspe.org. Please contact Emily Koussa who is our Chicago Chapter AYP Liaison. Emily can be contacted at aspe.chicago.ayp@gmail.com.

THE WOMEN OF ASPE

The women of ASPE are excited to introduce ASPE's new 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

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PRESIDENT'S MESSAGE CONTINUED...


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

Additional material can be found at www.aspe.org/aspe-mentoring-program



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Women of ASPE

ASPE Announces The Women of ASPE

The mission of the new Women of ASPE (WOA) special-interest group is to engage, retain, and advance women in the plumbing design industry through education, leadership development, and networking opportunities. It is open to women who have an active membership with the American Society of Plumbing Engineers. Some of the activities include:

- Mentoring programs
- Membership growth outreach efforts
- Fostering partnerships with industry-related associations
- Various educational offerings

To join the Women of ASPE special-interest group, email skidd@aspe.org
For more information, visit www.aspe.org/woa



Thank you,

Mark G. Mannarelli
Chicago Chapter President
ASPE.Chicago.President@gmail.com



Manufacturer Spotlight



***This month we would
like to thank:***



Thank you for your support!



VICE PRESIDENT, TECHNICAL

May Greetings!

Thanks to all of you who were able to attend the April Chapter Meeting. And a special “thanks” to Lochinvar for sponsoring the Cocktail Hour.

Our May Chapter Meeting will include a Manufacturer’s Spotlight by Paul Stanek with Pentair, which will be on “Leak Detection”.

Our main presenter will be Richard Green with Concoa, speaking on “Designing Laboratory Supply Systems for Flammable and Oxidizing Gases”. The presentation will be worth 0.1 CEU. Here are the objectives of the presentation:

1. Identify common laboratory applications for gases whose primary hazard is flammability or oxidizing including butane, ethane, ethylene, hydrogen, methane, nitrous oxide, oxygen, propane, and mixtures;
2. Determine the pressure, peak flow, typical consumption, material compatibility, and purity requirements of common laboratory applications for flammable and oxidizing gases;
3. Select and size an appropriate supply source among portable containers (high pressure cylinders and cryogenic liquid cylinders), refillable containers (bulk sources) or generators for flammable and oxidizing laboratory gases given gas and application requirements;
4. Select appropriate gas distribution equipment to supply flammable and oxidizing gases from their source to their points of use in laboratories based on gas characteristics and source; and
5. Identify key safety concerns associated with delivering flammable and oxidizing gases to laboratory applications and how to mitigate those concerns as application through system design based on guidelines from CGA, NFPA, ICC, and ASME.

Here is Mr. Green’s bio:

Having received a Bachelor’s of Science from Purdue University in Materials Science Engineering, Richard Green provided productivity and welding procedure support to the metal fabrication industry. Subsequently receiving an MBA from St. Ambrose University, he then provided operational improvement support for an independent gas distributor servicing the chemical and power generation industry. For the past 17 years at CONCOA he has provided technical support to the shipyard, laboratory, medical, and Design & Build industries as Territory Sales Manager, Product Manager, Business Development Manager and currently, National Sales Manager.

Until Next Time...

April Ricketts, PE, CPD, LEED AP BD+C

Chicago Chapter Vice President Technical

ASPE.Chicago.VPTech@gmail.com

312-346-5000



October 19-22, 2017 | Hotel Bonaventure Montréal | Montréal, Québec



ASPE WEBSITE – IF YOU ONLY READ ONE ARTICLE THIS MONTH.....

By a show of hands, how many of you have ever been on the ASPE website? Hmm, that few huh? Well, there is some really good stuff on there and today, we are going to look at a couple things in particular that are only available to ASPE members.

Before we start, let's think back a minute to the notices that our VP Membership Chris Sbarbaro told us about how we can update our contact information. If you have never done that or do not know how to do that, please contact Chris at aspe.chicago.vpm@gmail.com or 847.316.9220. I'm sure he'll be happy to help and I don't want to rain on his parade – he worked hard to create the instructions that he shared with us.

Okay, on to ASPE Member stuff. Grab a cup of coffee, pop a squat and open up www.aspe.org. Ready? Here we go...

The first thing we want to do is log in. Click the "LOGIN" button at the upper right of the ASPE home page and login. If you have never logged on, creating your account is easy. Just do the following:

1. Send an email to our VP Membership, Chris Sbarbaro (contact info above) and he will send you the instructions for how to login.
2. After receiving login instructions, go to <https://aspe.org> and click "LOGIN" at the upper right-hand corner.
3. First timers - now that you are logged in, before you do anything else, click the 'Edit' tab and immediately change your password. A brief suggestion – make sure you either write down your password somewhere or make it something easy for you to remember.
4. With your password set, you should verify your account data (under the 'View' tab). If you have revisions, edit and save your changes.
5. Now you are ready to access Member Only areas of the ASPE website.

Once you are logged in, "Members Only" appears under MEMBERSHIP at the upper left side of the home page. Click it (or click this - <https://aspe.org/MembersOnly>). If you are going here from your initial login, click the ASPE logo at the top left to go to the home page first and then go to 'Members Only'.

Plumbing Engineering Design Handbook

Did you know that this is available to you online? You can even download it. Not only is it nice to have on your computer, you might also benefit from putting it on your phone. Go here and be amazed - <https://www.aspe.org/content/aspe-plumbing-engineering-design-handbooks-volumes-1-4>.

Case Studies

A number of case studies have been published as part of the ASPE Journal, a quarterly report available to all ASPE members. Many of these studies are written by ASPE members which is pretty cool. Check this one out on Hospital Potable Water System Chlorination - <https://aspe.org/content/design-and-construction-siphonic-roof-drainage-system-lehigh-valley-patient-pavilion>.

I'll keep searching for some neat things on the website that are only available to YOU, the ASPE members. Or heck, you can search for yourself now that you know how to get into this Members Only section! If you have something you would like to see available to ASPE members, drop me a line and I will try to pass it on to folks who might be able to make it happen.

See you at an ASPE Chicago meeting!

Jason McDonald, Past President
jmcdonald@grummanbutkus.com; 847.316.9258

CHICAGO ASPE GOLF OUTING 2017

This year's golf outing is filling up fast. If you have not sent in your reservation form yet, please do so because it is a shotgun start and we are limited to 144 golfers. You don't want to be left out! If you did not receive a reservation form you can download a copy [here](#).

The outing will be held on June 16, 2017 at the Hilldale Country Club in Hoffman Estates. We will start with a "shot-gun" tee-off at 8:30 a.m. Cocktails (cash bar) will begin at 3:00 p.m., with dinner (please let me know if you have any special dietary requests) to follow at 4:00 p.m. as in years past; lunch (sponsored by Metropolitan Industries) will be served between the 9th and 10th holes. Breakfast (sponsored by Daugherty Sales) will be served from 7:30 a.m. - 8:30 a.m. in the snack shop and beverages from the beer carts (sponsored by Fluid Technologies Sales / Syncroflo) will be served on the course throughout the day. **There will also be special displays and activities as you play the course.** You don't want to be left out.

The golf format for this year's event will be a shamle. Each player hits a tee shot, select the best ball of the four tee shots, all players move their balls to the spot of the best ball, from this point each player plays their own ball until it is holed out.

If you plan on donating a door prize, please attach your business card onto the door prize and bring it to the dinner. All door prizes will be raffled off at dinner.

We appreciate your support and look forward to another successful outing.

We would like to give Metropolitan Industries an extra thank you for sponsoring the lunch. They have been sponsoring the lunch for around 20 plus years. Thanks to Daugherty Sales for sponsoring the breakfast again this year and thanks to Fluid Technologies / Syncroflo for sponsoring the beer carts.

Thanks,

Steve Triphahn
Golf Outing Chairman
Steve.Triphahn@wtengineering.com



VICE PRESIDENT, LEGISLATIVE

Greetings Chicago Chapter.

Additional information regarding last month's article:

A common question often asked by a civil engineer is: What is the peak runoff in GPM or CFS coming from the building's storm drainage system? This information is needed to determine how much of a building's storm drainage system contributes to the overall runoff coming to the building site storm drainage system.

We often refer to tables provided in the code book to size a building's storm pipes but how are actual flow rates calculated?

The Rational Method:

The Rational Method is often used by civil engineers to size site storm sewer systems for small sites that are typically a few acres or less. This equation translates peak rainfall intensity chart data into peak intensity of runoff. This can also be applied to a building roof as well.

The Rational Method is illustrated below:

$Q = CIA$

Q = Runoff, cfs

C = Coefficient of runoff, a dimensionless number

I = Rainfall Intensity, in/hr

A = Drainage Area, Acres (1 Acre = 43,560 sq ft)

Table 4-1 Coefficients for Use with the Rational Method

Type of Surface or Land Use	Coefficient of Runoff (c value)
Individual soil covers	
Forest	0.1 – 0.3
Turf or meadow	0.1 – 0.4
Cultivated field	0.3 – 0.4
Steep grassed area (2:1)	0.5 – 0.7
Bare earth	0.2 – 0.9
Gravel or macadam pavement	0.35 – 0.7
Concrete or asphalt pavement	0.8 – 0.9
Composite land uses	
Flat residential, about 30% impervious	0.40
Flat residential, about 60% impervious	0.55
Sloping residential, about 50% impervious	0.65
Flat commercial, about 90% impervious	0.80

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VICE PRESIDENT, LEGISLATIVE CONTINUED...

Here's an example of how the Rational Method is applied: Determine the peak discharge in GPM/CFS and drain pipe size for an office building that has an equivalent roof area of 22,500 square feet. Rainfall rates are established by the local code, AHJ, or the NOAA. In this example we will use 4 in/hr (IPC Section 1106, 100-year, 1-hour rainfall, Central Texas). It is also assumed that the roof has a similar coefficient of runoff to concrete or asphalt pavement, therefore we will assume $c = 0.9$.

$$Q = 0.9 * 4\text{in/hr} * (22,500/43,560) \text{ acres} = 1.86 \text{ CFS or } 835 \text{ GPM} \text{ (1 CFS} = 448.831 \text{ GPM)}$$

Summary:

- a. - 4" rainfall per hour
- b. - 22,500 sq. ft. roof area.
- c. **Q = 1.86 CFS or 835 GPM**

Per 2015 IPC requirements.

10"Ø drainage pipe, for 835 GPM (4 in/hr rainfall for 22,500 equivalent square feet of roof area).

TABLE 1106.2 STORM DRAIN PIPE SIZING

PIPE SIZE (inches)	CAPACITY (gpm)				
	VERTICAL DRAIN	SLOPE OF HORIZONTAL DRAIN			
		1/16 inch per foot	1/8 inch per foot	1/4 inch per foot	1/2 inch per foot
2	34	15	22	31	44
3	87	39	55	79	111
4	180	81	115	163	231
5	311	117	165	234	331
6	538	243	344	487	689
8	1,117	505	714	1,010	1,429
10	2,050	927	1,311	1,855	2,623
12	3,272	1,480	2,093	2,960	4,187
15	5,543	2,508	3,546	5,016	7,093

Useful Water Equivalents (approximate) - The following equivalents show the relationship between the volume and weight of water and between the volume and speed of flowing water.

Volume and weight

One inch of rain falling on 1 acre of ground is equal to about 27,154 gallons and weighs about 113 tons.

An inch of snow falling evenly on 1 acre of ground is equivalent to about 2,715 gallons of water. However, based upon the "rule-of-thumb" that 10 inches of snow is equal to 1 inch of water. This value can vary considerably, depending on whether the snow is heavy and wet, or powdery and dry.

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VICE PRESIDENT, LEGISLATIVE CONTINUED...

Heavy, wet snow has a very high water content—4 or 5 inches of this kind of snow contains about 1 inch of water. Thus, an inch of very wet snow over an acre might amount to more than 5,400 gallons of water, while an inch of powdery snow might yield only about 1,300 gallons.

One acre-foot of water (the amount of water covering 1 acre to a depth of 1 foot) equals 326,000 gallons or 43,560 cubic feet of water, and weighs 2.7 million pounds.

One cubic mile of water equals 1.1 trillion gallons, 147.2 billion cubic feet, or 3.38 million acre-feet, and weighs 9.2 trillion pounds (4.6 billion tons).

Rate of flow (in a stream)

Water flowing at the steady rate of 1 gallon per minute is equivalent to: 1,440 gallons per day; 0.00223 cubic foot per second; 192.7 cubic feet per day; or 0.00442 acre-foot of water per day.

Water flowing at the steady rate of 1 cubic foot per second is equivalent to: 449 gallons per minute; 646,000 gallons per day; 86,400 cubic feet per day; or 1.98 acre-feet of water per day.

Water flowing at the steady rate of 1 acre-foot per day is equivalent to: 226 gallons per minute; 326,000 gallons per day; 0.504 cubic foot per second; or 43,560 cubic feet of water per day.

Water flowing at the steady rate of 1 cubic mile per day is equivalent to: 764.6 million gallons per minute; Trillion gallons per day; 1.7 million cubic feet per day; or 3.38 million acre-feet of water per day.

This Information is from, Rain a Water Resource (Pamphlet), U.S. Geological Survey, 1988]

The amount of water in gallons one inch deep per square foot is 0.623

One inch of rainwater an hour = .0623 GPH divided by 60 minutes = 0.01038333 GPM (0.0104)

References: USGS (United States Geological Survey), & 2015 IPC (International Plumbing Code)

Have a Great Day!

J. Francisco DeHoyos, CPD

Vice President, Legislative

ASPE Chicago Regional Chapter,

ASPE Region 5 Liaison,

ASPE Society Education Committee Co-Chairman.

aspe.chicago.vpl@gmail.com



VICE PRESIDENT, MEMBERSHIP

There have been no new Chicago ASPE members this past month. Chicago membership standings are currently as follows:

Total Chapter Members = 282

Full = 135 | Associate = 16 | Affiliate = 106

Chicago ASPE Anniversaries:

I would like to congratulate the following members for having been in good membership standing for the noted periods of time!

35 Years:

- Era C. Yee CPD - Retired

30 Years:

- John Charles Bouse P.E.

25 Years:

- John R. Kochan Jr.
- Daniel T. Arenberg
- David A. Wolniak

20 Years:

- Thomas J. Higgins
- Jason J. Herber
- Kenneth D. Kowols CPD
- Jeffrey C. Chamberlin P.E., LEED AP
- Mark G. Mannarelli
- David Allen Lehman

15 Years:

- John R. Nowakowski P.E.
- Antonio Garcia Jr.
- Jonathan A. Triphahn
- Paul Rolando Valente CPD
- James P. Smith
- Nicholas Anthony Capretta III, CPD, GPD
- Natalia Dankanich

10 Years:

- Tatyana A. Sivak
- Paul Joseph Gangloff
- Scott Milne
- Robert Turk
- Didier Vargas CPD
- Sung J. Kwon G.E.
- George J. Pagach
- Christopher Paul Frauens P.E., CPD
- Thomas William Babcock
- Timothy J. Kilbane
- Martin Scott Barenbaum P.E., CPD, LEED AP, QCxP
- Lindsey A. Lehman
- James Edward Feeney P.E., CPD
- David W. Viola

5 Years:

- Luis F. Garza
- Mariusz Piotr Klimek CPD
- Francesco Labianca G.E.

Continued on next page...

VICE PRESIDENT, MEMBERSHIP CONTINUED...

5 Years Continued:

- Daniel Gordon
- Mohamed Said El Gammal
- Patrick Ryan O'Boyle P.E.
- Ishac W. Koussa P.E.,
LEED AP, CPD
- Jeffrey T. Church
- Henry Lenzen
- Travis A. McKnight
- Charles P. Eggert P.E.
G.E. LEED AP DCEP
CPD

Storm Drainage in the 2015 Edition of the International Plumbing Code:

As many of you already know, the 2015 IPC had some changes from previous editions with respect to storm drainage system sizing. Section 1105.2, entitled Roof drain flow rate, requires designers to utilize published roof drain *flow rates* to size roof drains, based on the head of water above the roof drain. This flow rate would then be used to size the storm drainage piping connected to the roof drain, in accordance with Section 1106.2. The 2012 IPC utilized the maximum projected *roof area* when sizing storm drainage piping.

It seems that many roof drain manufacturers do not want to release flow rate data. I do not know when this information will be made available, nor how to properly proceed with utilizing the 2015 IPC without them.

Here is a hyperlink to a statement released by the Plumbing & Drainage Institute back in August of last year in specific regards to this code change: http://www.mifab.com/Catalog/Library/PDI_Roof_Drain_Statement.pdf

Link to yet another manufacturer in regards to the code change:
<https://www.jrsmith.com/uploads/docs/eng.com.5.15.2.pdf>

Link the a recent article in PM Engineer that touches on this subject:
<http://www.pmengineer.com/articles/93016-new-sizing-method-for-roof-drainage-aims-to-clear-up-confusion>

Link to the Storm Drainage System Research Project done by the ASPE Research Foundation:
http://www.floridabuilding.org/fbc/commission/FBC_0816/TAC_Chair/ASPERFStormDrainageReportForDistribution.pdf

Link to the 2015 IPC:
<https://codes.iccsafe.org/public/document/code/550/9796923>

Link to the 2012 IPC:
<https://codes.iccsafe.org/public/document/code/302/5178265>

Thank You,

Chris Sbarbaro, PE, GPD, CPD, LEED AP BD+C
Chicago Chapter Vice President, Membership
ASPE.Chicago.VPM@gmail.com



ADMINISTRATIVE SECRETARY

Greetings Members,

If you missed the April meeting at Venuti's you missed a great meal with 60 attendees that enjoyed the evening networking. The 50/50 raffle was one of the largest we have had in a long time; \$201.00 that was split \$100 for Mike Dore at RC Sales and \$101 for the ASPE Research Fund. The winner of the dinner raffle was none other than Justin Burkhardt.

Sincerely,

David Erickson
Chicago Chapter Administrative Secretary
C# 312-519-5629 aspe.chicago.admsec@gmail.com

CORRESPONDING SECRETARY: INDUSTRY NEWS



Well we are coming down to the last official Meeting of the Season. This May will be the time to vote for the new officers. I will be looking to fill the role of VP Legislative; I look forward to getting your votes. However, I have a few items left to fulfill my role as corresponding secretary. Let's take a look at what is happening outside our community:

American Society of Sanitary Engineering (ASSE)
(http://www.asse-plumbing.org/chapters/region04_il.html)

ASSE Monthly Meeting

Date: No date listed at time of publication

Location: TBD

RSVP: Email ROlson@asse@gmail.com Phone: (630) 625-3419

Details: http://www.asse-plumbing.org/chapters/region04_il.html

National Fire Protection Association (NFPA)
(www.nfpa.org)

NFPA training throughout the US:

Details: <http://www.nfpa.org/training-and-events/resources/events-calendar>

NFPA FREE Webinar:

PPE Personal Protection Equipment Needs of US Fire Service

Date: Tuesday May 23, 2017, 12:30 PM – 1:30 PM

Cost: Free

Details: <http://www.nfpa.org/training-and-events/by-type/webinars>

American Society of Professional Estimators (ASPE)
(<http://www.aspechicago.org/>)

ASPE Monthly Meeting

Date: 3rd Thursday of every month (May 18, 2017)

Location: TBD

Time: 5 PM Social, 6 PM Dinner, 7 PM Program

RSVP: Marvin Fitzwater, mfitz-water@ccsdifference.com

USGBC - Illinois Chapter (LEED)
(<http://www.usgbc-illinois.org/events/event-calendar/>)

Monthly Events

On the Table 2017 with the Emerging Professionals

Date: Thursday, May 25, 2017, 6:00 – 8:00 PM

Location: Beermiscuous, 2812 N Lincoln Ave, Chicago, IL

Cost: \$TBD

Details: <http://www.usgbc-illinois.org/events/event-calendar/>

Society of Fire Protection Engineers (SFPE)
(<http://www.chicagosfpe.org/>)

SFPE Chicago Monthly Meeting

Corned Beef and Cabbage Dinner

Date: May 18, 2017, 5:00 – 10:00 PM

Location: Tinley Park VFW, 17147 Oak Park Ave, Tinley Park, IL

Cost: Members \$TBD Non-Members \$TBD

Details: <http://www.chicagosfpe.org/event/corned-beef-and-cabbage-dinner/>

Illinois Fire Prevention Association (IFPA)
(www.ifpanet.org)

IFPA/SFPE Past President's Night Out

Date: Friday May 12, 2017, 6 PM

Location: Kane County Cougars Stadium, Geneva, IL

Details: <http://www.ifpanet.org/CalendarEvent.aspx?ID=104&PBD=5/1/2017>

Illinois Chapter of ASHRAE
(<http://www.illinoisashrae.org/>)

ASHRAE Monthly Meeting

Date: Wednesday, May 17, 2017, 5:30 PM

Location: Haymarket Brewery, 737 W Randolph Rd, Chicago, IL

Cost: Members \$45, Non-Members \$55

Details: <http://illinoisashrae.org/calendar.php>

Refrigeration Service Engineer's Society (RSES)
(www.rses.net)

RSES Monthly Meeting

Date: No new date listed at time of publication, 2017

Location: TBD

Contact: 1-800-8970-3635

Details: <http://rses.net/>

CORRESPONDING SECRETARY: INDUSTRY NEWS CONTINUED...

**** {UPDATE} ***** {UPDATE} *****
{UPDATE} *****

PAMCANI – UPDATE PAMCANI IS NOW RUN BY

*******THE PLUMBING COUNCIL & PCA*******

(<http://www.plumbingcouncil.org/>)

The Plumbing Council is continuing the industry-wide calendar listing events throughout the year that can be found here:

<http://www.plumbingcouncil.org/documents-plumbing-council-contractors/piping-industry-calendar>

Or Check out their YouTube Channel <https://www.youtube.com/channel/UCuR7aTRkGBCOP74Y5GV3BcA>

PCA (Plumbing Contractors Association of Chicago and Cook County)

PCA Monthly Meeting

Date: Tuesday May 9, 2017, 6 PM

Location: Maggiano's Little Italy, Oak Brook. IL

Details: <http://www.plumbingcouncil.org/pca>

Illinois Association of Plumbing-Heating-Cooling Contractors (ILPHCC)

(www.ilphcc.com)

Continuing Education Class

Dates: No new dates listed at time of publication

Location: TBD

Cost: TBD

Details: <http://www.ilphcc.com/continuing-education>

National Rural Water Association (NRWA) – Illinois Rural Water Association (IRWA)

(<http://www.nrwa.org/>) (<http://www.ilrwa.org/>)

IRWA Monthly Water Training Sessions (How technology & Analytics is Changing the Water Utility Industry)

Date: May 23/24, 2017

Location: Sparta / Pekin, IL

Cost: Members \$FREE, Non-members \$FREE

Details: http://www.ilrwa.org/Training/water_training.html

IRWA Administrative Conference

Date: May 18/19, 2017

Location: Four Points by Sheraton, Fairview Heights, IL

Cost: Members \$165, Hotel Rates Vary

Details: http://www.ilrwa.org/Training/Training%20Division/Admin_Conf.html

American Water Works Association (AWWA) – Illinois Section

(www.awwa.org) – (<http://www.isawwa.org/>)

Multiple Items Listed on Event Calendar

Dates: May, 2017

Location: Varies

Details: http://www.isawwa.org/events/event_list.asp

Wisconsin Healthcare Engineering Association (WHEA)

(<http://www.whea.com/>)

Sign up now for their annual “lunch & learn” webinars service (12 per year)

Dates: Monthly, 2017

Details: <http://www.whea.com/about-us/calendar/>

Newsletter: <https://www.whea.com/media/123228/1st-quarter-newsletter.pdf>

Monthly Meeting

Dates: Thursday May 11, 2017

Details: <http://www.whea.com/about-us/calendar/>

**** {NEW} ***** {NEW} ***** {NEW} *****

Water Environment Federation (WEF) Illinois Chapter

(<http://www.iweasite.org/>)

Illinois Water Environment Association – Monthly Event

MWRD Algae Technology Tour

Dates: May 25, 2017

Location: MWRD O'Brian Water Reclamation Plant, 3500 Howard St Skokie, IL

Cost: Free

Details: https://www.memberleap.com/members/evr/reg_event.php?evid=9178121&orgcode=IWEA

Just a little follow up note. If you know of any association that you feel would be a benefit for ASPE members that I am not including here please let me know.

Scott Jagodzinski, CPD, GPD

Chicago Chapter Corresponding Secretary

ASPE.Chicago.CspSec@gmail.com