Chicago Chapter General Meeting
Thursday October 17, 2013

LaVilla Restaurant
3632 N. Pulaski Road
Chicago, IL 60641

Plenty of free parking!
Metra: Old Irving Park Station
Blue line: Irving Park Station
then 3 blocks south!

AGENDA
5:30pm  Cocktail Hour
6:30pm  Dinner, ($35 ASPE Members with RSVP/$40 Non-Members and Walk-ins)
7:30pm  Presentation – Introduction to Firestop by Melissa Fiore, Hilti Field Engineer
  Course # AEC182
  AIA/CES Learning units: 1.00
  AIA approved course. This course qualifies for 1.0 HSW/LU hour.

RSVP as soon as possible to Mark Mannarelli, VP Technical!
  ◊ Return the enclosed card for those of you getting this via US Mail
  ◊ Call: 630.901.6446
  ◊ Email: Chicago.ASPE.RSVP@gmail.com
  ◊ Go to Chicago.aspe.org and RSVP!

MENU

Dinner:
  • Salad
  • Cheese tortellini soup
  • Chicken Vesuvio
  • Bowtie pasta with vodka sauce
  • Mashed potatoes
  • Mixed vegetables

Dessert:
  • Ice cream cake roll

Beverages:
  • Coffee, tea, water and soda

Local chapters are not authorized to speak for the Society
**PRESIDENT’S MESSAGE**

First Meeting of the year a Product Show?
We believe it worked! We believe it was a good choice and it seemed attendance was up from last year. I don’t know about the rest of you but I had a great time, as always. If you have any concerns or questions, let us know. Your Chicago Chapter Board of Directors would like your opinion, especially on the date change of the product show. Please send your comments to me directly and I will forward them to the appropriate personnel.

OK, we believe we listened to you, and since we have a year off due to the ASPE National Convention coming to Chicago 2014, we have another year to look at possible other venues. If you have ideas please forward to any board member, we will review.

The Product Show Committee worked over the summer to make the September show happen. In my opinion they did a great job. The following volunteers all deserve a big thank you: Phill Kroll –Product Show Chairman, Mark Mannarelli, David Erikson, Patrick O’Boyle, Francisco DeHoyos, George Pagach, Nevo Martelli, as well as the many other dedicated members! I’m telling you this would have not happened without their hard work!

ASPE Convention 2014 - CHICAGO!
Big event is coming sooner than you think! Get Involved!
The 2014 ASPE Convention is September 19-24 of next year. There will be two opportunities for local chapter member’s involvement:

- Host Committee – headed by Frank Sanchez ([fsanchez@grummanbutkus.com](mailto:fsanchez@grummanbutkus.com))
- 50th anniversary of ASPE– headed by me, Rick Butler ([rbutler@lochinvar.com](mailto:rbutler@lochinvar.com))

Please contact either of us if you would like to get involved. If you need additional contact info let me or any Chicago ASPE Board member know. It is a good way to meet good people trying to do good things for all of us.

Side Note: I was told once, don’t just “join” something… get involved, you will have more fun and meet some great people. I took that advice and have met some of the best friends I know within ASPE.

Rick Butler, President
[rbutler@lochinvar.com](mailto:rbutler@lochinvar.com); 224 238.8515

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Stay tuned! November’s newsletter will include:
- 2013 Technical Symposium Articles
- ASPE Chicago Product Show attendance and CEUs
Hello again from your V.P Technical,

October Meeting

This month’s meeting will take place at La Villa Restaurant, where there is plenty of free parking and the Metra and L are located only blocks away.

Presentation: Introduction to Firestop

The presentation will cover firestop as it relates to life safety issues, code sections on penetrations, current standards & testing methods, understanding UL nomenclature & how to select the correct firestop system. The presentation will also cover specific firestop system drawings & engineering judgments, factors effecting firestop performance and inspection issues and applications – good & bad product introductions.

This presentation qualifies for 1.0 AIA/CES learning units!

Presenter: Melissa Fiore, Hilti Field Engineer

Melissa is an accomplished sales professional with 10 years’ experience in select industries. Melissa has spent her past 7 years in the construction industry. Currently, she is a Non-Structural Field Engineer specifically working with the design community (Architects & Engineers) providing technical support on applications related to Hilti relevant products. Previously, Melissa held the role of a Fire Protection Specialist at Hilti where she supported contractors externally and her sales force internally.

Insulation

Insulation for plumbing piping? What to specify? I have talked to several engineers with regards to the type and material used. There are so many different types listed in the specifications, and they all need to be modified to meet certain criteria for individual projects. I have listed below one of the many types of standard specifications for pipe insulation in plumbing “mineral fiber pipe insulation”. Insulation is located in division 21 and referenced under: Section 220700 - Plumbing Insulation.


ASTM C547 covers mineral fiber pipe insulation that is formed into hollow cylinders for standard pipe and tubing sizes. The pipe insulation may be molded or precision v-grooved with one or more walls split longitudinally and used up to a specified temperature. The materials are classified into five types according to the processing method used to form the material and the operating temperatures and into two grades according to heating requirements. The mineral fiber insulation should be manufactured from molten mineral substances such as rock, slag, or glass and processed into fibrous form using a binder, and adhesives when preferred. All products should conform to the required values of hot surface performance, non-fibrous content, use temperature, sag resistance, linear shrinkage, water vapor sorption, surface-burning characteristics, apparent thermal conductivity, and mean temperature.

1. Scope

1.1 This specification covers mineral fiber insulation produced to form hollow cylinders for standard pipe and tubing sizes. The mineral fiber pipe insulation may be molded or precision v-grooved, with one or more walls split longitudinally for use on pipe temperatures up to 1400°F (760°C).

1.2 For satisfactory performance, properly installed protective vapor retarders or barriers should be used on sub-ambient temperature applications to reduce movement of moisture through or around the insulation to the colder surface. Failure to use a vapor barrier can lead to insulation and system damage. Refer to Practice C921 to aid material selection.

1.3 Flexible mineral fiber wrap products such as perpendicular-oriented fiber insulation rolls, non-precision or manually scored block or board, or flexible boards or blankets used as pipe insulation, are not covered by this specification.

1.4 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.5 The following safety hazards caveat applies to the test methods portion, Section 11, only: This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

Continued on Next Page...
2. Referenced Documents The documents listed below are referenced within the subject standard but are not provided as part of the standard.

**ASTM Standards**
- C167 Test Methods for Thickness and Density of Blanket or Batt Thermal Insulations
- C168 Terminology Relating to Thermal Insulation
- C302 Test Method for Density and Dimensions of Preformed Pipe-Covering-Type Thermal Insulation
- C335 Test Method for Steady-State Heat Transfer Properties of Pipe Insulation
- C356 Test Method for Linear Shrinkage of Preformed High-Temperature Thermal Insulation Subjected to Soaking Heat
- C390 Practice for Sampling and Acceptance of Thermal Insulation Lots
- C411 Test Method for Hot-Surface Performance of High-Temperature Thermal Insulation
- C447 Practice for Estimating the Maximum Use Temperature of Thermal Insulations
- C585 Practice for Inner and Outer Diameters of Thermal Insulation for Nominal Sizes of Pipe and Tubing
- C612 Specification for Mineral Fiber Block and Board Thermal Insulation
- C795 Specification for Thermal Insulation for Use in Contact with Austenitic Stainless Steel
- C921 Practice for Determining the Properties of Jacketing Materials for Thermal Insulation
- C1045 Practice for Calculating Thermal Transmission Properties under Steady-State Conditions
- C1058 Practice for Selecting Temperatures for Evaluating and Reporting Thermal Properties of Thermal Insulation
- C1104/C1104M Test Method for Determining the Water Vapor Sorption of Unfaced Mineral Fiber Insulation
- E84 Test Method for Surface Burning Characteristics of Building Materials

**Other Standards**
- CAN/ULC-S102 Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies Available from Underwriters Laboratories of Canada, 7 Crouse Road, Scarborough, Ontario MIR3A9.

**ICS Code**
ICS Number Code 91.100.60 (Thermal and sound insulating materials)

Some additional types of insulation can include: Calcium Silicate, Cellular glass, Flexible Elastomeric, Phenolic, Polyolefin, and Polystyrene. As you can see there can be a wide range of insulation types that can be used.

*Mark G. Mannarelli, Vice President, Technical*
mmannarelli@dbHMS.com

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**Attention ASPE Young Professionals!**

At the recent Technical Symposium the Committee and others had discussions about an adjustment and how it would be a good move for the group to make sure we aren't excluding anyone. So from now on we will not be AYE (ASPE Young Engineers) but AYP (ASPE Young Professionals). Along with the change in name the focus won't be on 35 and younger, just anyone who wants to be involved with younger professionals. Liaisons will be 35 and younger however, so keep this in mind if you would like to be an AYP Liaison. So welcome to [ASPE Young Professionals](#)!
Microburst and Storm Pipe sizing

Sizing a storm pipe system for a building is not a simple task any more. During the last 2 decades a dangerous weather phenomenon event that produces large amounts of rain in a short period of time has become very constant. Currently old cities have no more capacity in their sewer piping infrastructure to contain all the storm runoff of their paved and non permeable areas. And if that was not bad enough, this natural phenomenon is not considered in our storm water load calculations. “The Microburst”, as this weather event is called, is produced by a rapid change in temperature between storm clouds resulting in a flooding down-pour. The event time fluctuates, but the most common periods are between 8 and 12 minutes; this will be the equivalent of literally "buckets of water". Are building roofs ready for this ponding?

This is a big problem because code calculations are based on a storm of one-hour duration and a 100-year return period only, with documented rainfall data from the National Weather Bureau—and so the Microburst load is not accounted for!

The ASPE Research Foundation published a study were a new approach in storm pipe sizing is shown. This new approach can prevent a hand full of problems.


Note: This study helps to protect the building from several piping failures, but let’s not forget that because we cannot change the sizing of the existing city sewer mains, we recommend integrating storm water detention, and/or retention system in your design.

J. Francisco DeHoyos, Vice President, Legislative
aspe.chicago.vpl@gmail.com
The 42nd Annual Chicago Chapter Product Show has passed and is in the books... as one of the best Product Shows in years! All of the hard work of the Product Show Committee paid off with a great turnout, good looking show, interesting seminars and the finest plumbing product representation in the business. It appears all of our magazine advertising, post card mailing, e-mailing and distribution of our Product Show fliers really drew in the crowd.

We started off this year with seminars beginning at noon. The RSVPs and turnout for our seminars was very good. The larger seminar room that seats around 100 was almost completely full for the Energy Recovery and both BIM seminars. In fact after the second BIM seminar, people who still had questions mobbed our presenter, Dan Hughes. Luckily, it was the last seminar of the day and he spent an extra half-hour or so answering questions.

The Product Exposition started immediately after the last seminar, so everyone could come right in and meet our reps and see all the latest plumbing products. Judging from the first couple hours of the Show, it appears that everyone in the seminars came right to the Exposition. We had quite the crowd!

We had a few changes this year for the Product Exposition, that you should have noticed when you attended. The biggest may have been that we went with lighter colors and brightened up the show. Then we also relocated a few product representatives so you would need to go looking for your old friends and as such, you would wander around and see more people. Door prizes and raffle prices were distributed all afternoon. This year we gave away two flat screen TVs and a Galaxy Tablet as raffle prices. Then of course there was the amazing Polish Buffet Dinner. I suspect quite a few people stayed just to get their yearly fix of free kielbasa and pierogi. How could you go wrong?

I would like to thank all of the Chicago Chapter Product Show Committee members and volunteers who helped out. It would not be possible to put together such a fine Product Show without their input and help. I would like to name everyone here... but no one wants me to write a seven page article, right?

If you have any comments or feedback regarding the Product Show, please do not hesitate to send me an email.

Remember that the Chicago Chapter will not have a Product Show in 2014 due to the ASPE National Convention in Chicago. I expect to see you all at the National Convention representing the finest ASPE Chapter there is: ours!

Phill Kroll, CPD, ASPE Chicago Chapter Product Show Chairman
224.629.4444 Ext: 213
Pkroll@metrodg.com

Did you know that you can go to http://chicago.aspe.org/ and RSVP for the ASPE Dinner Meeting @ La Villa Restaurant 3632 N. Pulaski Rd. Chicago, IL on Thursday October 17, 2013?

While on the Chicago Chapter website you can find hyperlinks for many interesting topics such as:

- 2014 Chicago Convention Host Committee Sponsorship Programs “Manufacturer Spotlight”.
- Significant Code Changes to the 2012 International Plumbing Code
- WaterSense to develop flushometer toilet specification
- IAPMO R&T to certify commercial pre-rinse spray valves to WaterSense

I would like to finish up with a quick information fun fact; just one part oil per million parts of water will make drinking water taste and smell funny.

I hope to see you at the October 17th dinner meeting and thank you for reading the entire newsletter.

David J. Erickson Sr., Administrative Secretary
derickson@symmons.com: 847.287.0922
October Greetings!

Autumn is finally upon us. The leaves are starting to fall off of the trees…the temperatures are dropping…trick-or-treating time is just around the corner…and Daylight savings time doesn’t end until November this year. Enjoy the fun!

It was great to see so many of you at last month’s Chapter Product Show. The turnout and the variety of the table top displays was pretty good. I was hanging out at the Chicago ASPE Chapter’s table with some of the other Board members and volunteers and had the pleasure of meeting so many new faces. I was pretty busy helping out with the hourly raffles and handing out 2013-2014 ASPE pins (by the way, I will be bringing the pins to the October Chapter Meeting in case you did not pick yours up). I also met with many of the manufacturer’s reps before the Show to get updates on their product lines for the Chapter Manufacturer and Rep Directory that gets posted to the ASPE Chicago Chapter website. If you are a plumbing equipment rep who was not at the Product Show and have updates to the directories, please let me know.

Speaking about the Product Show…As part of our advertising campaign for the event, we sent out a bunch of post cards to all of the folks in our data base. Of those sent out, we got about 50 of them “returned to sender” because of incorrect addresses. If you need to update your contact information with the Chapter, please send me an email or give me a call and I will make the changes.

Welcome to all of the new members of the Chicago ASPE Chapter:
- Steve Frappier
- Marc Rodriguez
- Garret Russell

Until next time…

April Ricketts, PE, CPD, LEED AP BD+C, Vice President Membership
rickettsa@cdmsmith.com: 312.346.5000

WOW great Product Show! What a way to open a new season and administration. All the people who helped with the set up and planning can’t be thanked enough. I would mention names but I won’t for two reasons: too many to mention and I’m afraid I might miss someone and would not want anyone to feel left out.

Affiliates, Reps, Distributors, Manufactures and Owners:
Thank you for coming out and showing us all your great products, services and support systems. I would hope that all your existing and new clients do and will learn to appreciate all that you have to offer in the way of quality products and dependable service. A huge thanks for all the prizes that you provided to make the evening festivities even more fun.

Engineers, Designers and Contractors:
Many Kudu’s for coming out and supporting your chapter. Your ASPE Chapter is trying very hard to get valuable information into your hands to make your projects better and give the end user quality systems. The only way you can do that is to be informed about state of the art equipment. These shows and your Reps can provide you with these necessary tools which are invaluable. Please continue to work with your Reps and let them help you help yourself and your clients. It can only be a win-win situation.

In about 2-1/2 months from now will be Booster Night at La Villa. Should it be the December Meeting or another Game Night? You, the affiliates, and members please let me know your preference. Per the responses I received last year it sure seemed like Game Night was enjoyed by all. I would like to hear from as many of you as possible as what you would really like. Let me know your preferences on types of games, food, etc. Please talk to me or better yet email me. I promise not to divulge your names.

For now let’s continue to show our support and attend the next ASPE meeting at La Villa on October 17th, 2013. Should prove to be a great topic on firestop!

Nevo Martelli, Vice President, Affiliate
nmartelli@262apex.com
Unlike a body falling through the air, which would reach a maximum or “terminal velocity” of about 120 MPH, or 176 fps (36.58 m/s), terminal velocity within a waste stack is approximately 10 to 15 fps (3.05 to 4.57 m/s), and this velocity is attained within 10 to 15 ft (3.05 to 4.57 m) of fall from the point of entry. This is because of the friction between the sheet of falling water and the interior surface of the waste piping, as it spirals down the pipe wall.

The ultimate vertical velocity the sheet attains is called the “terminal velocity”. The distance the sheet must fall to attain this terminal velocity is called the “terminal length”. Following are the formulae developed for calculating the terminal velocity and terminal length:

\[
V_T = 3.0 \left( \frac{Q}{d} \right)^{2/5}
\]

\[
L_T = 0.052V_T^2
\]

Where
- \( V_T \) = Terminal velocity in stack, fps (m/s)
- \( L_T \) = Terminal length below point of flow entry, ft (m)
- \( Q \) = Quantity rate of flow, gpm (L/s)
- \( d \) = Diameter of stack, in. (mm)

At the center of the stack is a core of air that is dragged along with the water by friction and for which a supply source must be provided if excessive pressures in the stack are to be avoided.

The usual means of supplying this air are through the stack vent or vent stack. The entrained air in the stack causes a pressure reduction inside the stack, which is caused by the frictional effect of the falling sheet of water dragging the core of air along with it.

If the sheet of water falling down the stack passes a stack fitting through which the discharge from a fixture is entering the stack, the water from the branch mixes with or deflects the rapidly moving sheet of water.

An excess pressure in the drain from which the water is entering the stack is required to deflect the sheet of water flowing downward or mix the branch water with it.

The result is a backpressure created in the branch, which increases with the flow rate and flow velocity down the stack and with the rate of flow out of the drain.

The importance of this research is that it conclusively abolishes the myth that water falling from a great height will destroy the fittings at the base of a stack. The velocity at the base of a 100-story stack is only slightly and insignificantly greater than the velocity at the base of a three-story stack. The actual concern is the weight of the stack, which must be supported by clamps at each floor level.

Thanks for reading.

**The Most Interesting Man in the World, CPD LEED-AP BD+C, ARCSA-AP, GPD**

Mystery Member  
ASPE Chicago Chapter
Well I thought there was a good turnout for the recent ASPE Product Show. I hope everyone enjoyed themselves, won some good prizes, and got some networking in while they were at it.

While I have made a slight career change, I will continue to be a part of the Chicago ASPE Board of Directors. As always, if you need anything added to our list below please don’t hesitate to contact me at chris@DRWindustrial.com. See you all at the upcoming ASPE meeting on October 17th!

American Society of Plumbing Engineers (ASPE) (http://chicago.aspe.org)

Chicago ASPE Chapter Meeting
Date: Thursday, October 17, 2013 @ 5:30PM
Location: La Villa Restaurant, 3632 N. Pulaski Road, Chicago, IL

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

2013 Annual Meeting
Dates: November 5-9, 2013
Location: Disney's Paradise Pier Hotel
Anaheim, CA
http://www.asse-plumbing.org/am13.html

National Rural Water Association (NRWA) (http://www.nrwa.org)

NRWA Water Pro Conference
Dates: October 1-3, 2013
Location: Kentucky Expo Center
Louisville, KY
Details: http://www.h2o-xpo.org/

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

No info for an upcoming Chicago NFPA Chapter Meeting: http://www.chicagosfpe.org/program_schedule.html

NFPA Training throughout the US.
http://www.nfpa.org/Training/Events%20Calendar

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

IFPA Meeting
Date: Tuesday, October 8, 2013 @ 6:00 PM
Location: Glendale Lakes Golf Club
1550 President Street, Glendale Heights, IL 60510

IFPA/SFPE Product Show Meeting
Date: Tuesday, October 22, 2013 @ 5:30 PM
Location: Millers Ale House
455 Butterfield Rd, Lombard, IL 60148

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

2013 Greenbuild Conference and Expo
Dates: November 20-22
Location: Philadelphia, PA
Details: http://www.greenbuildexpo.org/home.aspx

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

2013 SFPE Annual Meeting
Dates: October 27 – November 1, 2013
Location: Omni Hotel & Resorts, Austin, TX
Details: http://www.sfpe.org/SharpenYourExpertise/Education/2013SFPEAnnualMeeting.aspx

Illinois Chapter of ASHRAE (www.illinoisashrae.org)

Illinois Chapter Meeting
Date: Thursday, October 8, 2013 @ 4:30 PM
Location: Park Tavern
1645 W. Jackson, Chicago, IL 60612
Details: http://illinoisashrae.org/calendar.php

PAMCANI (www.pamcani.org)

PAMCANI industry-wide calendar: www.piccal.org

Illinois Association of Plumbing-Heating-Cooling Contractors (ILPHCC) (www.ilphcc.com)

PHCC Connect 2013
Dates: October 16-19, 2013
Location: Rio All-Suite Hotel & Casino
Las Vegas, NV
Details: http://www.phccweb.org/connect/

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

Chicagoland Chapter Meeting
Date: Tuesday October 10, 2013 @ 7:00 PM
Location: Silver Stallion Restaurant,
1275 Lee Street, Des Plaines, IL

American Society of Professional Estimators (www.aspechicago.org)

Chicagoland Chapter Meeting
Date: Tuesday October 17, 2013
Location: Brio Tuscan Grill
Details: http://www.aspechicago.org/html/events.html

Chris Sbarbaro, PE, CPD, LEED AP BD+C, Corresponding Secretary
chris@DRWindustrial.com
# 2013-2014 ASPE Chicago Meeting Schedule

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<th>Technical Presentation</th>
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<td>August 10, 2013</td>
<td>Second Annual ASPE Family Picnic</td>
<td>Schiller Woods Grove #12</td>
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<tr>
<td>September 26, 2013</td>
<td>ASPE Chicago Chapter “First Ever” September Product Show</td>
<td>White Eagle 6839 N. Milwaukee Ave Niles, IL</td>
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| October 17, 2013 | **Introduction to Firestop**  
|                  | By Melissa Fiore, Hilti                                          | La Villa Restaurant 3632 N Pulaski Rd  
|                  | Chicago, IL                                                     |                                               |
| November 21, 2013| Rainwater Harvesting                                             | Parthenon 314 S Halsted St Chicago, IL       |
| December 19, 2013| ASPE Chicago Chapter Booster Night and Holiday Celebration       | La Villa Restaurant 3632 N Pulaski Rd  
|                  | Chicago, IL                                                     |                                               |
| January 16, 2014 | Aging in Place  
|                  | By Peter Fazio Jr.                                               | Parthenon 314 S Halsted St Chicago, IL       |
| February 20, 2014| **To Be Determined**  
|                  | (IAPMO Joint Meeting)                                           | Westwood Tavern & Tap 1385 N. Meacham Rd  
|                  |                                                                 | Schaumburg, IL                               |
| March 20, 2014   | Special Fire Suppression Systems—FAAST  
|                  | by System Sensor                                                | La Villa Restaurant 3632 N Pulaski Rd  
|                  |                                                                 | Chicago, IL                                 |
| April 17, 2014   | Fire Alarm Annunciation Technology                               | Venuti’s 2251 W. Lake Street Addison, IL    |
| May 15, 2014     | **To Be Determined**  
|                  | (SFPE Joint Meeting)                                            | Westwood Tavern & Tap 1385 N. Meacham Rd  
|                  |                                                                 | Schaumburg, IL                               |
| June 20, 2014    | ASPE Chicago Chapter Golf Outing                                 | Hilldale Golf Club 1625 Ardwick Drive Hoffman Estates, IL |
| August, 2014     | ASPE Chicago Chapter Summer Event                                | TBD                                           |

If you would like to present any of these topics or become a meeting sponsor, please contact Mark Mannarelli at [mmannarelli@dbHMS.com](mailto:mmannarelli@dbHMS.com) or 630.901.6446.