



ASPEnewsletter

Southwestern Ohio Chapter

April 2011 Volume 29 Issue 9

Chapters are not authorized to speak for the Society

**AMERICAN SOCIETY OF
PLUMBING ENGINEERS
SOUTHWESTERN OHIO CHAPTER**

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ASPE April Meeting

Date: TUESDAY, April 19^h

Location: 5651 Kellogg Ave. Cincinnati, Ohio 45230

Schedule: 11:30-12:00 PM Lunch and Program
12:00-1:30 PM Tour

Speaker: Cincinnati Water Works Tour

<http://www.cincinnati-oh.gov/water/pages/-3283/>

OR

http://www.cincinnati-oh.gov/water/downloads/water_pdf41572.pdf

Cost: Box Lunch: sandwich, chips, pop or water & cookie \$7.00 catered by Green Derby. Please make your reservation so we have a head count.

Reservations: Contact Bob McCain of BSE at (e-mail) rlmccain@bsestd.biz, (phone) 937.312.0217 or (fax) 937.438.0195 before **Monday April 18th** so that a head count can be established. As always, guests are welcome. Bring a friend.

FUTURE MEETING SCHEDULE

April 19, 2011 City of Cincinnati Water Works Tour

May 17, 2011 Fire Systems Design Considerations, Dayton Fire Department

June 3, 2011 Dayton Dragons

June 4, 2011 ASPE Regional Chapter Pres. Meeting Hosted by SWOASPE

**All meetings held in Middletown unless noted otherwise
All meeting topics subject to change without notice**



Mark June 3rd on your calendar for the 8th annual ASPE night at the Dayton Dragons game! Party deck 2 with seating for 50+ is reserved for the 7 PM game against the Wisconsin Timber Rattlers.

Anyone who has attended previously can attest to the great time had by one and all. This year we look forward to hosting some of the Region 2 President's meeting attendees' to add to the fun.

We're looking forward to another great evening on June the 3rd. Friends and family are welcome of course and anyone who wishes to participate in the raffle could be rewarded with a great prize like the infamous custom made golf club. Tickets are only \$ 15 each.

Dinner and beverages are again being provided by our generous affiliate members. Food and ticket sponsorships are still available.

Please contact Jeff Watern via email at jwatern@helmigl.com to reserve your tickets or to find out about sponsorship opportunities.

Don't wait, last year tickets went quickly and those who waited weren't able to enjoy this fun event.

We're looking forward to seeing everyone at the game!

Technical jargon...

- **Legal claims over sustainability promises vs performance of certified green buildings are beginning to mount**—and so are warnings to A/E/P and environmental consulting firms, *The Zweig Letter* reported in its February 28 issue.

In February, insurance broker and risk management firm Ames & Gough issued warning urging design professionals to consider carefully the contractual language regarding “standard of care” and “scope of services” in addressing projects that pursue the US Green Building Council’s LEED certification.

One of the most critical provisions in any contract for professional design services relates to the standard of care under which the design professional will be required to render its services. In the absence of contract language to the contrary, a design professional will be held to a common law standard of care commensurate with that of other professionals providing the same services to a geographically similar community.

“However,” Manhattan-based construction and real estate attorney Stephen Del Percio told *The Zweig Letter*, ZweigWhite’s weekly management journal that caters to the design industry, “on a green building project, an owner may seek to hire a design firm specifically because of its sustainable design expertise. Accordingly, it may attempt to hold the design professional to a higher standard of care than that which prevails in the industry. The standard of care has shifted.”

Contractual wording that stipulates attaining certain levels of LEED certification and guarantees of specific percentages of energy reduction “can be affected by owner and contractor decisions, or otherwise beyond a design professional’s control,” said Dan Knise, CEO of Ames & Gough.

Performance-based language such as “this design will achieve a LEED Gold rating” or “will reduce operating costs by 50%” in a standard of care provision may be problematic if the insurer believes that the design professional has provided the owner with the equivalent of a warranty or guarantee.

Said Del Percio, since professional liability policies generally exclude coverage for claims arising out of the breach of a warranty or guarantee, owners and design professionals should review language in their construction agreements for provisions that could potentially be construed by an insurer as the equivalent of a warranty or guarantee.

- For State of Ohio projects, the state relies upon the Architect/Engineer (A/E) to select and specify materials and systems of institutional quality, durable building components and equipment, suitable for the intended purpose and within the project budget.

In August 2010, the Ohio Department of Administrative Services (DAS) issued Directive GS-D-14 which **addresses specification standards for all agencies and institutions of higher education administering capital improvement projects under the direction of Ohio Revised Code Chapter 153.** With regard to the selection of equipment or materials, the directive states that bidding documents must allow for unrestricted competition among interested suppliers and manufacturers to the extent feasible.

In general, the directive addresses the use of sole-source specifications, cases in which fewer than three manufacturers are named and guidelines on allowing vendor assistance with specification writing.

The use of sole source specifications in which patented materials, articles or items are not offered by three or more manufacturers, has now been limited. Exceptions are made only after careful consideration has been made regarding serviceability, functionality and the cost of the material or article.

In the case where fewer than three manufacturers are specified, the A/E must submit a written justification to the Contracting Authority at the time of submitting the drawings and specifications. The project manager will review the justifications and approve or deny the waiver.

In addition, the A/E is encouraged to limit vendor assistance in directly writing a project’s specification unless approved by the Contracting Authority. The Contracting Authority reserves the right to not approve a contract or subcontract based upon a determination that a conflict of interest or competitive advantage exists.

- *Casper, the Friendly Ghostwriter*

Legislatively speaking...

- As part of the EPAAct of 1992, which mandated such conservation measures as 1.6 gpf water closets, was a provision that pre-empted state and/or local jurisdictions from enacting more stringent requirements than the Federal Government. But quietly on December 22 of last year, the pre-emption on State Governments expired, **granting the authority to any state to enact its own water usage standards.** This means that any state can require (for example) values less than 1.6 gpf for water closets furnished and installed within its borders.

The repeal of this portion of the EPAAct was in response to legislation in California (it figures) and the ‘green’ movement. While this might sound good in principle, we could see the opening of floodgates

releasing a variety of products on the market, each attempting to satisfy the requirements of one or more states as states could attempt to outdo each other in the name of water conservation. And if states impose a lower requirement than 'green' certification demands, do all new buildings constructed in that state automatically qualify for certification? And how do the manufacturers and code bodies address the situation on their ends in the coming years? It will prove interesting to see how this plays out!

• For those of you involved in work down in the Bluegrass State, be advised that there are **changes to the Kentucky Uniform Building and Plumbing Codes**. For instance...

There are changes to the number of plumbing fixtures (based upon population) for churches and places of worship. Sanitary facilities shall be provided in a church as follows:

- (a) One (1) drinking fountain for each 400 persons or fraction thereof;
- (b) One (1) water closet for each 150 females or fraction thereof;
- (c) One (1) water closet for each 300 males or fraction thereof;
- (d) One (1) urinal for fifty (50) to 150 males or fraction thereof;
- (e) One (1) additional urinal for each additional 150 males or fraction thereof; and
- (f) One (1) lavatory for each 150 persons or fraction thereof.

School Buildings Not Including Higher-Education Facilities. If detached modular classrooms are used, sanitary facilities shall not be required, if:

- (a) The entrance of the modular classroom for elementary grades through the fifth grade is within a developed travel distance not to exceed 100 feet from the accessible entrance to the main structure or an approved central modular restroom;
- (b) The entrance of the modular classroom for sixth grade and above is within a developed travel distance not to exceed 200 feet, from the accessible entrance to the main structure or an approved central modular restroom;
- (c) The travel path meets the accessibility (handicapped) requirements in the Kentucky Uniform Building Code; and
- (d) There are sufficient fixtures in the main structure to serve the entire capacity of the school, including the modular classrooms.

There are new restroom requirements for restaurants.

- (a) If more than five (5) persons of different sex are employed, separate sanitary facilities for each sex shall be provided for the employees.
- (b)
 - 1. Except as provided in subparagraph 3 of this paragraph, in a new establishment or an

establishment that is extensively altered or changed from another type occupancy to a restaurant, toilet facilities for each sex shall be provided and readily accessible for the use of both patrons and employees.

- 2. Carryout-type food service operations shall be exempt from providing toilet facilities for the use of their patrons.
- 3. A restaurant with a business occupancy of one (1) to fifteen (15) persons shall:
 - a. Comply with the requirements in paragraphs (c) and (e) of this subsection; or
 - b. Provide one (1) unisex facility consisting of one (1) water closet and one (1) lavatory.

There are also new requirements for hand-washing sinks in all food service establishments:

- 1. All hand-washing sinks shall have a minimum hot water temperature of 100 degrees Fahrenheit and a maximum of 120 degrees Fahrenheit.
- 2. Self-closing faucets shall provide a flow of water for no less than fifteen (15) seconds from activation. *(Self-closing faucets are optional)*
- 3. Placement of hand-washing sinks shall be approved by the Cabinet for Health and Family Services, Department for Public Health pursuant to 902 KAR 45:005.

A three (3) compartment sink for washing utensils shall be required which shall drain by:

- 1. A direct connection with a minimum of a two (2) inch drain; or
- 2. An indirect connection to a three (3) inch trap with a minimum of an eight (8) inch by eight (8) inch open grated floor sink.

And dishwashing/ware washing machines have new drainage requirements:

- (c) Dishwashing or ware washing machines shall discharge indirectly through a three (3) inch open receptacle.
- (d) Residential type dishwashing machines shall discharge:
 - 1. Through an air gap device; or
 - 2. Indirectly through a three (3) inch open receptacle.

Food preparation sinks shall discharge by an indirect connection to a minimum three (3) inch trap. *The reason for mandating food preparation sinks to discharge indirectly is to prevent sewage contaminating the food in an event that the drainline backs up into the sink, with an indirect connection the backflow of sewage would dump onto the floor before reaching the food that may be in the sink.*

- (f) All hub drains, open receptacles, floor sinks, or other waste receptacles shall extend one (1) inch above the floor plane unless a full grate/ strainer is installed flush with the floor. *The reason for this is to*

prevent objects from being mopped or swept into the drain.

- I'm certain that the membership have at least a passing acquaintance with Legionella and the concerns it brings to healthcare facility design. But what is your level of knowledge concerning ASHRAE 188? This new standard will address the issue of **Legionella prevention (primarily in healthcare facilities)**. ASHRAE 188 moves beyond the conventional strategies that have been employed in the past (such as elevating the temperature of hot water storage tanks, maintaining a constant movement of recirculated hot water and minimizing the amount of 'dead legs' in a domestic hot water piping system), and mandates the following procedures:

Domestic hot water shall be circulated at a minimum temperature of 124 degrees F.

With this higher temperature of circulation, localized mixing valves conforming to ASSE 1070 or ASSE 1016 shall be used to limit domestic hot water to safe temperatures. Be sure you coordinate the type of mixing valve with the prevailing code on your project.

When using localized mixing valves is not feasible, other physical or chemical secondary water treatment shall be provided. One or more of the following can be included under ASHRAE 188:

- Chlorine injection systems
- Chloramines
- Chlorine dioxide
- Ozone Copper-silver ionization units
- UV radiation

- A cautionary tale from around the water cooler: recently, on a project located in Michigan, a designer was informed by the local plumbing inspector that **ALL floor drains must be serviced by a trap primer valve**. The State of Michigan bases its Plumbing Code (MPC) on the International Plumbing Code (the same code the Ohio Plumbing Code is based on). Section 1002.4 Trap Seals states the following:

'Each fixture trap shall have a liquid seal of not less than 2 inches (51 mm) and not more than 4 inches (102 mm), or deeper for special designs relating to accessible fixtures. Where a trap seal is subject to loss by evaporation, a trap seal primer valve shall be installed. A trap seal primer valve shall conform to ASSE 1018 or ASSE 1044.'

There is an exception in the OPC (which is NOT included in the MPC) that states:

'Exception: Where a fixture trap is supplied with water on a regular basis, a trap seal primer valve shall not be required.'

In this instance, the floor drains in question were provided for general housekeeping and would receive

water from a cleaning unit provided in each toilet room and used daily per the Owner's standard operating procedures.

While there could be some doubt in the minds of the inspector/plans examiner that the floor drains in question would not receive water on a daily basis, or that they could simply be looking ahead should the Owner/usage of the building change, the designer was informed that this is a policy that was put in place by the local Chief Plumbing Official. This requirement also contained the provision that each floor drain shall have a dedicated trap primer valve (multiple distribution units were not allowed). While certain aspects of this policy could be considered extreme, it was decided to 'bite the bullet' and add the trap primer valves.

All of which reinforces the notion that when designing a project in unfamiliar territory, consulting the code official/plans examiners whenever possible early in the design process is sound thinking.

-Ronald K Bartley PE, CPD, CPI

Through the pipes...

- In what has turned into a black eye for the National Football League, [released records](#) show the Dallas Cowboys were **slow to respond to requests for building permits required to install temporary seating at Cowboys Stadium until about three weeks before the Super Bowl**, despite being informed of the city of Arlington's requirements five months ahead of the big game. Approximately 1250 seats were deemed unsafe, and about 400 fans had nowhere to sit. "Code Officials face tough issues like this day in and day out," said Code Council COO Dominic Sims. "Arlington Chief Building Official Ed Dryden and his staff should be commended for the professionalism they displayed in this pressure-filled situation."

- In a story by Les Shaver of *Multifamily Executive*, Federal Reserve Chairman Ben Bernanke recently said that a sustained surge in oil prices could mean weaker growth and higher inflation (*No kidding!*). Still, the Fed chieftan said he didn't feel concerned about the recent spike in oil.

Multifamily developers didn't need to hear Bernanke's testimony to the Senate Banking Committee (where he also said that the economic recovery was becoming self-supporting, even though job growth is still way too slow) to know how skyrocketing oil prices could affect their business. Oil prices are now over \$100 a barrel, prices not seen in years.

"Oil products are prevalent in our business," says Jim Butz, president and CEO of McLean, Va.-based Jefferson Apartment Group, which projects breaking

ground on 1100 units in 2011. **“(The increase in the cost of oil) will have a significant impact on the cost of construction.”**

Diesel, commonly used to fuel large-production construction equipment, is the product most directly affected by a surge in oil prices, but other products are affected as well. High oil prices can lead to surcharges in deliveries as well as push up the price of raw materials such as concrete, insulation, and waterproofing materials. East Rutherford, NJ-based Allied Building Products is projecting increases of more than 10 percent for a host of its products. Meanwhile, products such as Sheetrock brand Gypsum Wallboard products are seeing 25 percent increases. And wire products have risen by more than 10 percent.

With most construction-related and raw materials seeing 5 percent to 10 percent price increases, the trickle-down effect is even being seen on consumer-centric products such as appliances because of the increased costs of plastics and transportation. “Gas prices have moved up very fast and with it, so have product prices,” says Ken Simonson, chief economist for Arlington, VA-based The Associated General Contractors of America. “It’s also affecting many petrol chemical-based products—insulation materials, waterproofing materials, and plastics. I do expect in the short term that construction material costs will be higher because of what’s going on (in the Middle East).”

For some, the turmoil is already wreaking havoc. Marc Padgett, executive vice president with Jacksonville, NC-based Summit Contractors Group, which projects starting 1502 units this year, has definitely noticed the price increases. “The cost of copper, flooring and all of our petroleum products such as Romex brand wire and PVC pipe are rising with fuel costs,” he says. “Since all roofing material is asphalt-based; that increase will be huge, too.”

Parting thought...

May the Lord lift up His favor upon you and give you His peace.

-Numbers 6: 24-26

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April/May 2011						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10	11	12	13	14	15 Hop to it! Make your reservations	
17 Palm Sunday	18	19 SWO ASPE Chapter meeting/ Passover	20	21	22 Good Friday	
24 Easter	25	26	27	28	29	30
1	2	3	4	5 Cinco de Mayo	6	7

▶ What do the Beach Boys, Mickey Mouse, and T&S low-lead faucets have in common?



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Looking for an opportunity to expand your business?

Want to get your foot in the door of engineering firms?

Looking for a creative way to network with engineers, designers, inspectors, and contractors?

If the answer is...yes...to any of these questions, there's a way to achieve these goals...

The Southwest Ohio chapter of ASPE is hosting a night out with the Dayton Dragons on June 3rd, 2011 when they play the Wisconsin Timber Rattlers.

What better way to reach your business goals and support the local ASPE chapter than to network with the plumbing engineers that can specify your products. We have reserved one of the party decks to allow everyone to intermingle with each other and enjoy a great game at the same time.

Opportunities to participate in this event include:

Tickets Package*:	\$250	
	Includes:	4 tickets to the game + Signage around the party deck at the game ** + FREE web page banner on SWOASPE.com *** <u>+ FREE ad in local ASPE newsletter****</u> = NEW BUSINESS OPPORTUNIES
Food Sponsor:	\$150	
	Includes:	1 ticket to the game + Signage on the food table at the game** <u>+ FREE ad in local ASPE newsletter****</u> = NEW BUSINESS OPPORTUNIES

If you're interested, please fill out the attached form and

- Fax it to 937-228-1936 or
- Email it to: jwatern@helmigl.com

Thanks for your support,
Southwest Ohio Chapter of ASPE

* There are a limited number is Ticket Packages available, so please reserve your package before they're all gone.

** The signage will consist of a banner that lists all of the food sponsors and individual 2'x3' banners for each of the ticket sponsors.

*** Web page banner consists of front-page logo link for 12 months.

**** Newsletter advertisement consists of full page for 1 issue or half page for 2 issues.

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Phone: _____
Fax: _____
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Food Sponsor (\$150)

NOTE – Please bring a “door prize” for the raffle with you on the night of the game.

Please contact Jeff Watern at 937-228-4007 or email jwatern@helmigl.com.

Ticket sponsor signage at the game will consist of banner type signs approx. 2'x3' in size.
First time ticket sponsors will need to submit logo to Jeff Watern by Tuesday, May 26th.

For newsletter and/or website advertisements, please email or contact Jim Miller at 513-248-1313 or email jmiller@herndoneng.com for ad requirements.

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