Vapor Intrusion into Homes and Buildings: An Emerging Contaminant Risk

Dana J. Wagner, CHMM, Principal, Terracon Consultants, Inc.

Speaker Bio:

Dana is a Principal of the firm and a Department Manager with 28 years of experience managing numerous single and multi-site projects across the United States, in Europe, Canada and Mexico. Dana specializes in transactional-oriented environmental due diligence, particularly for the private equity community. He has represented buyers and sellers in both stock and asset transactions, providing Phase I & II environmental site assessments, regulatory compliance audits, strategic planning for environmental matters, and post-closing site response. Dana has managed due diligence for several very large portfolio projects including a 257 site industrial portfolio completed in 6 weeks. Dana has significant experience in Brownfield redevelopment, including commercial, retail, residential and mixed use projects of various sizes in different markets. He routinely interacts with state, federal and local regulatory agencies on behalf of clientele in obtaining regulatory resolutions to environmental contamination issues and compliance matters. Dana has also assisted clients in obtaining over $14 million in assessment and clean-up grants via federal, state and local funding sources. Dana has completed regulatory compliance reviews and provided environmental permitting assistance for numerous facilities. He has also worked with the legal community as an expert witness on disputed matters. Dana earned a Bachelor of Science from the University of Minnesota, Minneapolis/St. Paul. He is involved with the Minnesota Chapter of the Association of Corporate Growth and is a Certified Hazardous Material Manager.

Presentation Synopsis:

We have all heard of radon and mitigation systems to protect houses from that vapor risk. An emerging risk that is being addressed across the country is the potential for vapor intrusion of volatile organics into homes and buildings from releases to solvents to soil and groundwater. The audience may have heard of the General Mills/Henkel Corp Superfund Site where vapor intrusion risk was assessed and mitigation completed. The talk will discuss what vapor intrusion is, what type of contaminants and sources cause vapor intrusion risk, how we assess conditions at a home or building and how vapors are mitigated beneath a house or building slab.

LOCATION: Grumpy’s Bar and Grill, 2801 Snelling Avenue, Roseville, MN 55113
Free parking is available adjacent to the restaurant.

Agenda:

Social time and lunch (if you so desire) will be available from 11:30 AM to 12:30 PM with presentation from 12:30 PM to 1:30 PM. A lunch at a cost of $20 will be available. Lunch will consist of a turkey burger buffet and includes sides and a beverage. Please RSVP no later than Friday, June 22nd, 2018, with your intent to either partake in the lunch or to come for the presentation only. Please click the RSVP button in the left-hand column of page 1 or use the following Eventbrite link to RSVP: https://www.eventbrite.com/e/june-professional-development-meeting-tickets-46676911900

Have an idea for future meeting topics or tours? Please contact Matt Redington with your ideas at matthew.redington@hdrinc.com or 763-591-5487!
Highlights of the May Meeting

During the Joint SAME and the Minnesota Section of ASFPM May luncheon meeting, engineers from Barr Engineering highlighted the Flood Protection project their firm (along with KLJ and Moore Engineering) has been working on for the City of Wahpeton, North Dakota. The City of Wahpeton is prone to flooding. In fact, much of the city is within the 100 year flood plain. The community experienced flooding in 1948, 1950, 1979 and 2013. A flood control project for Wahpeton was authorized in 1975. However, the City of Wahpeton was reluctant to move ahead with an investment in a large flood control project due to local politics. The "Bigger Waters Act" of 2012 would have caused a large increase in flood insurance rates. The City officials realized that the project could be paid for in 10 or 15 years with the funding that they would have to pay for the increased flood rates. The starting point for Barr Engineering was with volumes of design documents and report from the Corps of Engineers. Barr undertook a "Value Engineering" design process, spending a little more on value design and construction of HEC-RAS 2D hydraulic model that allowed Barr to save money with project construction.

The design calls for a Diversion channel that bypasses the natural river channel north of town. Project features include a tieback levee and an inlet structure (flow west to east) gated weir control structure in the Park River. With these features, the town is mostly removed from the 100 year floodplain. The VE process was used to identify that the inlet control structure could be made of earthen fill armored with riprap, rather than the concrete control structure in the original design.

Barr Engineers were particularly excited with the analysis they conducted with the 2-Dimensional features of HEC-RAS hydraulic model. With the 2D model, the team determined which areas were particularly erosive (needed a more conservative riprap design) and which could be armored with less. They showed slides that where the 2D model results helped highlight other areas that were erosive or could benefit from some alterations to the design. The 2D model output was also used to assess how fish passage could happen with the project in operation.

Construction of the project started in May, and is expected to be completed in 2019.

SAME-MSP Newsletter Needs Your Help!

We are looking for an interim newsletter editor for September 2018 through December 2018. If you are interested in helping compile information and put together the newsletter, please contact Rebekah Hudson at Rebekah.hudson@jedunn.com. We use Microsoft Publisher to publish our newsletter, and Rebekah can easily train you via Skype if you are not familiar with the software. We hope to have the position filled by June 2018.

May’s Business Brief Recap

Stantec is a full service engineering and design firm with more than 22,000 employees globally and more than 200 offices throughout North America. Locally, Stantec has nearly 200 employees in three offices across Minnesota who deliver local expertise supported by global perspectives. Stantec brings sustainable and reliable solutions that improve the quality of life in communities around the world. It takes creativity, expertise, and collaboration to successfully bring together the many pieces needed for large-scale, life-changing infrastructure projects. That’s why the firm brings highly experienced, multidisciplinary teams together with stakeholders of the community and clients to deliver innovative solutions that truly meet everyone’s needs.

Stantec is proud to support the U.S. Army Corps of Engineers on projects around the globe. Employees at Stantec live, work, and raise families in the communities its Federal clients defend and sustain, so each of Stantec’s projects supporting military and civil works infrastructure are given particular personal attention by the project teams. Keeping their mission at the forefront, the firm’s goal is to exceed expectations and anticipate future needs as partners in building a secure and sustainable nation.

Save The Date—8th Annual SAME-MSP Awards & Recognition Banquet

Wednesday, August 8th, 2018 at 6:00 PM at last year’s location -- Minnesota Humanities Event Center in St. Paul, MN! Look for an email with the link to sign up shortly.

MMFF Golf Tournament—Free Golf!

The Minnesota Military Family Foundation (MMFF) is having their annual golf event on Tuesday, August 14, 2018 at Bunker Hills in Coon Rapids. The MMFF is a community-supported fund to help military families with financial hardships, especially when a family member is deployed. SAME MSP has supported this organization in the past and is seeking 4 golfers to attend this event as we are sponsoring a hole. Shotgun Start at 11:30 am. Please contact Sherry Van Duyn at svanduyn@landmarkenv.com or Peter Allen at Peter.Allen@stantec.com to sign up and for further information.
Sustaining Member Presentations at Future SAME-MSP Post Meetings

The SAME MSP Post is looking for our sustaining members to give a brief 5 minute presentation about your company prior to the monthly presentations. This is a great networking opportunity to tell others about your company’s services, small business information, etc. We currently have openings, see schedule below. Please email Sherry Van Duyn at svanduyn@landmarkenv.com or Dave Ausdmore at dave@hssciences.com with which month you would like to present.

<table>
<thead>
<tr>
<th>Month</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>June</td>
<td>EFN Survey</td>
</tr>
<tr>
<td>September</td>
<td>Open</td>
</tr>
<tr>
<td>October</td>
<td>Open</td>
</tr>
<tr>
<td>November</td>
<td>Open</td>
</tr>
</tbody>
</table>

Register Now for the 2nd Annual MSP Post Industry Day & 33rd Annual Golf Tournament

**When:** Friday, July 20, 2018  
**Where:** Oak Marsh Golf Course in Oakdale, MN  
**Schedule:** Industry Day in the morning, followed by lunch, golfing in the afternoon, and awards/dinner after golf  
**Why:** Earn PDHs, Network, and Have Fun! More info provided on the attached event flyer.  
**Volunteers Needed:** We are looking for volunteers to help with the golf tournament event. If you are available to help, please contact Rachel Pichelmann at 951-724-8245.
Register Now for the SAME Industry Day & Golf Tournament!
Friday, July 20, 2018 at Oak Marsh Golf Course in Oakdale, MN

**Industry Day Event**
8 AM to 11:30 AM

**PDHs Available**
Speakers wanted for the following topics:
- Climate Change & Impacts
- Infrastructure
- Innovation & Technology
- Leadership, Team Building & Communication
- Legislative Updates
- Resilience
- Water Resources

Interested in Presenting? Please Contact:
- Nathan Meisgeier (651-290-5656) or
- Sherry VanDuyn (952-666-2420)

**Sponsorship Opportunities Available**
Contact for Additional Event Info:
- Chris Afdahl at 651-290-5712 or
- by email at Christine.a.afdahl@usace.army.mil

**33rd Annual Golf Tournament**
Shotgun Start at 1 PM

**Supports the M-SP Post’s Education & Mentoring Fund (Scholarships)**

**Several Sponsorship Opportunities**

Scramble Format

Prizes for 1st & 2nd Place Teams

Individual Awards for Longest Drive, Longest Putt & Closest to the Pin!

Additional Fun Activities on Every Hole and Great Prizes!

**$10,000 Prize for Hole-In-One!**

Individuals, twosomes, threesomes, and foursomes are welcome!

**Italian Buffet Dinner & Awards Following Golf**

Contact for Additional Info:
- Rachel Pichelmann at 651-724-8245 or
- by email at rpichelmann@sehinc.com

Registration Information and Additional Details Provided on Next Page
Register Online before the July 13 Deadline!
http://www.wpgolf.com/oakmarsh/same_fundraiser.aspx
Early registration by June 30 will qualify you for a special drawing!

Sponsorship Opportunities

**Industry Day Sponsor - $500 Donation**
Company recognized during event

**Golf Tournament Hole Sponsor**
$200 Donation for Small Business; 
$400 Donation for Others
Company name/logo displayed at tee box, indicating sponsorship of hole.

**Golf Tournament Hole-In-One Event Sponsor - $750 Donation**
Company name/logo displayed at tee box, indicating sponsorship of one of the hole-in-one $10,000 contests

For all sponsorship options, your company will be listed as one of the tournament sponsors and will receive special acknowledgement at the awards presentation.

Sign up to sponsor this event using the registration link above.

Registration Options

**Industry Day - $40*/$30†**
Includes morning refreshments, technical presentations (3 PDHs), and box lunch

**Golf Tournament - $120*/$90†**
Includes golf, ½ cart, box lunch, dinner, and one drink ticket

**All Day - $140*/$110†**
Includes Industry Day & Golf Tournament

**Golf Tournament Dinner Only - $25**
Italian Buffet Dinner

*Price listed applies to SAME sustaining members and employees of private firms.
†Price applies to employees of public agencies, SAME young members, and fully retired SAME members.

SAME Student Members contact Rachel Pichelmann (651-724-8245) if you are interested in participating.

Door prize donations are appreciated!

Oak Marsh Golf Course
526 Inwood Avenue N.
Oakdale, MN 55128

Check Out the M-SP Post of SAME at samemsp.org