



ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS

Allegheny-Ohio Section

NEWSLETTER

August 2014

Editor: Nate Saraceno

Meeting Date

Wednesday, September 10th

Time

6:00 PM - Social Hour
7:00 PM - Dinner
8:00 PM - Presentation

Location

Engineer's Society of Western Pennsylvania
337 Fourth Avenue
Pittsburgh, PA 15222
(Click here for map)

Cost

\$35 Members
\$45 Non-Members
\$10 Students with ID
(Checks Preferred)

Entrée Choice

Chicken Florentine with Prosciutto Ham, Spinach and melted Swiss Cheese
Stuffed Lemon Sole with Seafood Stuffing and delicate Lobster Sauce
Tenderloin of Beef Bruschetta with Dijon Mustard, Tomato and melted Provolone

Vegetarian option available upon request

RSVP with meal choice by Monday, Sept 8th

to: Nate Saraceno
nrsaraceno@gmail.com

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AEG & ASCE-GI Joint Meeting
Wednesday, September 10, 2014



Dr. Gregory Hempen
2013-2014 Richard H. Jahns Distinguished Lecturer

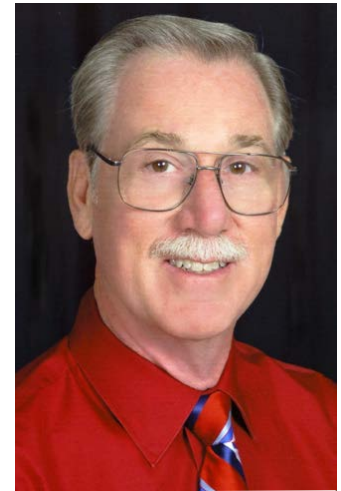
KABOOM! (or whoosh?) [AKA: Mitigating Blasting Impacts without Diminishing Effectiveness]

Blasting can achieve its desired purpose and, when cautiously conducted, will have assurance of avoiding significant impacts or damage nearby.

Blasting is a mysterious art that is considered extremely dangerous by the public. Blasting is very effective in moving low-tensile materials (rock & concrete) that cannot be easily excavated mechanically. Blasting is effective, because the chemical release of energy from the blasting agent results in detonation and in great gas-volume production in a very short time. The blaster uses empirical approaches and developed experience to perform the activity required and to create the blaster's largest profit.

The three primary impacts due to blasting are: flyrock, noise (airblast), and vibrations (or pressure waves in an aquatic environment). Secondary effects from these impacts cause other hazards away from the blasting zone. These primary impacts can be controlled by the blasting parameters used, and for some projects, by additional mitigating measures. Achieving the required goal of blasting most effectively may be counter to adequately reducing the secondary effects that are possible. The talk considers the application of mitigation research for unusual blasting cases. Some of the cases noted include: quarry blasting's possible disturbance of hibernating Myotis Sodalis (Indiana Bats); impacts upon a planned Natural Gas pipeline near an active quarry; removal of the Embrey Dam (Rappahannock River near Fredericksburg, VA); rock excavation near geologic hazards; and, adverse impacts from blasting of, or near, water-borne structures. Geophysical assessment of the site is required to understand wave passage and how vibratory, or pressure-wave, impacts may have damaging amplitudes beyond the blasting zone.

Each of these cases is briefly developed to note the proper approach to mitigating human, environmental, geologic and structural impacts without diminishing the capacity to effectively perform the blasting. The important issues are to research past similar projects, calculate anticipated impacts, resolve a means to measure impacts (if warranted), anticipate important blasting parameters, and develop the blasting contract and information to complete the purpose of the blasting. Many projects require some education of the owner (client), engineer-in-charge, blasting firm, those that could be harmed by blasting, and/or the general public. Blasting can be conducted to achieve the project's goals without causing adverse impacts to surrounding areas.



Dr. Gregory Hempen
2013-2014 Richard H. Jahns Distinguished Lecturer

Read Dr. Hempen's biography on page two of this newsletter!

NEXT ON THE SCHEDULE:

February 4, 2015 - Dr. Eldon Gath, 2014-2015 Richard H. Jahns Distinguished Lecturer

Details to be determined. Read Dr. Gath's biography and abstracts here:

http://www.aegweb.org/about-aeg/awards/jahns-distinguished-lecturer/2015-jahns-lecturer



Dr. Gregory L. Hempen: AEG/GSA 2013-2014 Richard H. Jahns Distinguished Lecturer

Gregory (Greg) L. Hempen has been named the 2013-2014 Richard H. Jahns Distinguished Lecturer in Engineering Geology. Greg is a Geophysicist / Geological Engineer, consulting for URS Corporation's St. Louis Office. During his entire career, Greg has held only one title, Geophysicist. He specializes in all types of vibration mitigation from earthquakes, blasting and pile driving, and recommending appropriate geophysical studies for complex sites. His 40+ year career includes a long tenure at, and retirement from, the St. Louis District, Corps of Engineers.

Greg has conducted duties for all levels of government, federal, state and local. He had worked closely with consulting firms managing studies on federal projects. He now works in the private sector, but continues studies for federal and state offices. His duties have included: site assessment of dam sites, regional earthquake studies for federal dam sites, probabilistic and deterministic appraisal of potential earthquake impacts, varied geophysical studies for different projects' concerns (from archeological to environmental transport to groundwater to rock weaknesses), blast vibration mitigation while effectively achieving the blasting goal, environmental mitigation, and the dreaded – "other duties, as assigned."

Greg received a B.S. in Geophysical Engineering from St. Louis University, a M.S. in Geo-Engineering from the University of Minnesota, Minneapolis-St. Paul, and a Ph.D. in Geological Engineering from the University of Missouri - Rolla (now Missouri University of Science & Technology). He is a Registered Professional Engineer in Missouri and Registered Professional Geologist in Arkansas and Missouri.

Greg has written a variety of publications on issues to share the understanding of procedures, instead of keeping proprietary control of methodologies. Greg has been an adjunct professor at all the engineering universities in the St. Louis area. He has taught Environmental Science classes and Geotechnical Engineering courses. His longest running class was offered once a year - "Seismology and Seismic Design" (CE 530A), Civil Engineering Department, Washington University of St. Louis, 1989 to 2004. Greg had taught at several Corps of Engineers' professional training courses.

Several causes have gained Greg's attention over the years. He has long been active with AEG (President, 1989-1990), and GSA – EGD. He had a minor role in developing the administration of the Jahns' Lectureship. He is also active with several other professional organizations. He has been involved with the pursuit of several important public issues, including Geologists' Registration, public disaster preparedness, and building code adoption. He has served on state commissions, and is presently serving on two Missouri State organizations.

Some of the accolades that Greg has received are: the Otto Nuttli Award from the St. Louis Section of the American Society of Civil Engineers, October 2011; a Professional (Honorary) Degree from Missouri University of Science & Technology, December 2010; award with the Army and Corps team for the Embrey Dam removal, May 2004; Johnston Service Award from AEG, October 2002; Achievement Metal for Civil Service, December 1998; and, 1991 Regional Outstanding Engineer from the Missouri River Region of the Society of American Military Engineers.



2013 AEG President Matt Morris presents Dr. Hempen as the 2013-2014 Richard H. Jahns Distinguished Lecturer during the 2013 AEG Annual Meeting in Seattle, WA.



Join Us for the 57th Annual Meeting

September 20-28, 2014 | Scottsdale, Arizona

Hosted by the AEG Arizona Section



- ◆ Field Trips to include the Grand Canyon, Sedona sinkholes, Kartchner Caverns, and an open pit copper mine.
- ◆ Short courses including Estimation of Soil Properties for Foundation Design, Interpreting Aerial Photographs to Identify Natural Hazards, LIDAR Scanning and Point Cloud Processing, and MODFLOW—USG.
- ◆ Meeting to be held at the DoubleTree Hotel, located in the heart of Old Town Scottsdale, within walking distance of great shopping, restaurants, and nightlife
- ◆ An exciting special event at the renowned Zelma Basha Salmeri Gallery of Western American and Native American Art.

Tentative Technical Sessions/Symposia

- ◆ Probability and Reliability Based Design
- ◆ Groundwater/Environmental Site Characterization
- ◆ Earth Fissures
- ◆ Engineering Geology for Mining Projects
- ◆ Geological Engineering for Transportation Projects
- ◆ Rockslope Mapping & Mitigation
- ◆ Unsaturated Soils
- ◆ Geophysics
- ◆ Dam Rehabilitation
- ◆ Landslides
- ◆ Wildfires and Debris Flows
- ◆ Landfills and Waste Fills
- ◆ GeoPhilanthropy

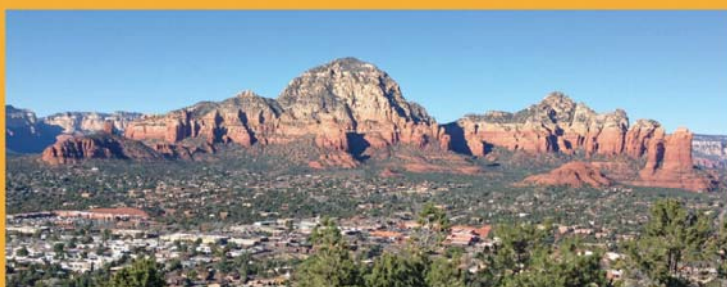


Photo credit: Flickr user NatalieMaynor



Find all the latest information at www.aegweb.org

#AEG2014





AEG 57th Annual Meeting • Scottsdale, AZ • September 20 - 26, 2014

Informational Interview Service: Call for Volunteers

Are you interested in helping launch the career of a young geologist? AEG's Student and Young Professional Support Committee (SYPSC) is seeking professional geologists across all fields of practice to perform brief informational interviews with students members. Please consider volunteering during AEG's Annual Meeting in Scottsdale, Arizona this September. Whether you have been practicing for 3 years or 30, you are bound to have valuable knowledge to share!

Please contact SYPSC co-chairs Adair (agallisdorfer@yahoo.com) and/or Velita Cardenas (velita.cardenas@gmail.com) if you are interested in learning more about this opportunity.

Students: Informational Interviews will be given in half-hour sessions throughout the week. Time slots are first-come, first-served. Be on the lookout for the schedule within a week of the Annual Meeting. You'll be given the opportunity to request a specific time slot via email, but a sign-up sheet will also be made available at the registration desk during the meeting.

Student/Professional Networking Reception

Tuesday, Sept 23rd, 5:15pm - 6:15pm

The 7th annual Student/Professional Networking reception takes place just before the Annual Meeting's Icebreaker and gives students the opportunity to meet with professionals face-to-face. It is conducted in a round-table format, typically with 1-2 professionals and 3-4 students per table. We strongly encourage you to attend this open event, as it is an extremely beneficial service to our young members, and very rewarding for our professionals.

BONUS: Students attending this event will receive a ticket at the door for a chance to win one of ten \$50 gift cards!

Keep Up To Date!

New exhibitors and sponsors, extended deadlines and updates to the schedule of events are just a few of the things that can change as we approach the Annual Meeting next month. Be sure to keep checking the Annual Meeting website to find the latest information!

Learn more about the Annual Meeting here: <http://www.aegweb.org/about-aeg/aeg-meetings-events/2014-scottsdale>

Be Social!

You already use social media, why not make the most and Follow the **#AEG2014** hashtag on Facebook, Twitter and Google+ for everything you need to know about the annual meeting. You can get useful advice, share your thoughts, ask questions, see which talks your friends are attending, and more! Can't find what you're looking for? Just ask, and tag your post with #AEG2014!

Don't forget to connect with AEG on any of our [social media platforms](#):





Section Officers:

Chair: Kristen Enzweiler
Co-Vice Chair: David Plas
Co-Vice Chair: Alex Prvanovic
Treasurer: Nichole Wendlandt
Secretary: Nate Saraceno

Other Section Positions:

Student Liaison: Brian Greene
Short Course Director: Terry Downs
VP Liaison: Vacant
Past Chair: Nichole Wendlandt

CALL FOR VOLUNTEERS!

We're constantly on the lookout for our next Section leaders!

If you are interested in volunteering or learning more, email Nate Saraceno at nrsaraceno@gmail.com

Connecting Professionals, Practice and the Public

The Association of Environmental and Engineering Geologists (AEG) contributes to its members' professional success and the public welfare by providing leadership, advocacy, and applied research in environmental and engineering geology.

AEG's values are based on the belief that its members have a responsibility to assume stewardship over their fields of expertise. In support of serving an international network of environmental and engineering geologists devoted to excellence, AEG values are:

- Upholding sound principles of scientific inquiry with respect to the study and evaluation of geologic processes, their impact on humans, and the human impact on Earth
- Encouraging and facilitating ongoing education and training as well as supporting members in their dedication to their work
- Building public appreciation for how environmental and engineering geology contribute to public safety and the protection of property.

Learn more about AEG here: <http://www.aegweb.org/about-aeg>

AEG Member in the News:

How the Wilshire Grand tower project was born

AEG member and past Chair of the Southern California Section, **Rosalind Monroe** took the *Los Angeles Times* beneath the streets of LA and millions of years into the past in order to shape the future of the City's skyline.



Rosalind, a geologist with the geotechnical consulting firm AMEC, went eight stories down a borehole prior to construction at the Wilshire Grand tower site in order to answer questions about the stability of the building site.

By bringing the *LA Times* along, she seized the opportunity to advocate for the profession and

demonstrate the important relationship between engineered structures and the underlying geology.

Read the full story here:

graphics.latimes.com/wilshire-grand-history

Have you been in the news? Let us know!

If you would like to submit member news, email Nate Saraceno at nrsaraceno@gmail.com




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 [AEG - Association of Environmental & Engineering Geologists](https://www.linkedin.com/company/AEG-Association-of-Environmental-&-Engineering-Geologists)

 [AEGwebTV](https://www.youtube.com/AEGwebTV)

Pro Tip!

Don't want to remember/search for our user names? Just type www.AEGweb.org "backslash" then any of the above social media names, like this:

www.AEGweb.org/facebook