November 2011 Dinner Meeting

SPEAKER: Nico Sutmoller, Insulfoam

TOPIC: GEOFOAM as Lightweight Fill Material

DATE: Tuesday, November 15, 2011

LOCATION: Radisson Valley Forge
1160 First Avenue, King of Prussia, PA

TIME: Dinner Meeting: 5:30 PM; Social Hour: 6:30 PM
Dinner: 7:15 PM; Presentation

Register online at www.DVGI.org

In this educational experience, the participants will learn about the utilization of geofoam as a light weight fill alternative. EPS Geofoam is a large block, rigid foam plastic material that has typical densities between 12-46 kg/m³ (0.7-2.85 ft³) making it up to 100 times lighter than soil. It is one of the only truly engineered fill materials that has predictable, consistent physical properties. Geofoam exhibits the highest strength to weight ratio of any fill material. Geofoam is a simple, cost effective solution for five major geotechnical conditions that engineers encounter on a regular basis:

1. The elimination or reduction of lateral loads upon structures with geofoam.
2. The utilization of geofoam in the driving block of a landslide.
3. The utilization of geofoam to reduce dead and live loads over buried utilities.
4. Creating a zero loading factor for soft soil remediation.
5. Utilizing geofoam as a structural void fill for various concrete applications.

The incorporation of geofoam for infrastructure projects has now been successfully utilized for a number of decades in a number of countries all over the world. Some of these countries are Norway, The Netherlands, the United States, Japan, Germany and Malaysia. The utilization of geofoam for commercial, residential and infrastructure projects around the United States has seen a dramatic growth trend in recent years. In this educational experience the participants will also learn the manufacturing process of EPS, the history of geofoam, recent trends, some design considerations, specifications and installation considerations.

*One Professional Development Hour (PDH) will be provided for this dinner meeting.*
Nico Sutmoller, Insulfoam Geofoam Specialist works in conjunction with the technical Center and all of the Insulfoam facilities throughout North America as the geofoam specialist. Prior to joining Insulfoam in 2007 as the geofoam specialist, Mr. Sutmoller had vast experience with geofoam ensuring that manufactured geofoam materials such as those required at the Louis Armstrong Int’l Airport, New Orleans, Louisiana and the Woodrow Wilson Bridge in Alexandria, Virginia projects met the material requirements under the strictest manufacturing guidelines.

Throughout the country, Nico is a frequent guest speaker at various ASCE Chapters, Geotechnical conferences, USACE districts, Architectural and Engineering firms, numerous DOTs, and their consulting engineers working on specific design/build projects and a multitude of General Contractors.

Most recently, Nico has assisted a number of state departments of transportation in setting their geofoam specifications guidelines such as those presently in place for the Nebraska Department of Transportation. Nico also works closely with and guides the Insulfoam National Geofoam CAD designers in preparing and approval of the geofoam shop drawings for the individual project engineers, visits jobsites and educates contractors that have little prior knowledge to the installation of geofoam in ensuring that the installation goes smoothly. Most geofoam projects do not necessarily involve transportation applications and Nico works on a multitude of other commercial/residential geofoam projects involved the reduction of lateral and dead loads upon structures, and/or underlying soils have low bearing capacity which would cause unacceptable soil settlement.
DVGI was selected as one of four regional chapters of the GeoInstitute to host one of the first “Cross America Lecture Tour” by Dr. Robert Holtz, Ph.D., P.E. Dr. Holtz is renowned for his work on earth reinforced structures and mechanically stabilized earth. His talk focused on recent developments using geosynthetics to reinforce backfills behind retaining structures and why they have made traditional concrete gravity and cantilever retaining walls almost obsolete. He presented how geosynthetic reinforced soil (GRS) walls are significantly cheaper to construct, can be built higher and on poorer foundations, and appear to have greater seismic stability than conventional retaining structures. He presented several case studies of geosynthetic performance including the effects of seismic events.

Dr. Holtz discussed the early development of reinforced earth structures starting with steel reinforcement through the development of geosynthetic reinforcement. After reviewing the historical development of reinforced soil retaining structures, the advantages of these systems and the use of geosynthetics for soil reinforcement he also covered the multiple choices for wall facings. Specifications, wall construction, inspection and suggestions for avoiding failures were discussed and a few remarks as to why geosynthetic reinforced wall systems are likely to be the future standard retaining wall concluded the talk.
Earn PDHs at 2011-2012 DVGI Events

Upcoming Dates for 2011-2012 Dinner Meetings are as follows:

♦ January 17, 2011—Drs. Bob and George Koerner, Ph.D., P.E., Geosynthetic Issues with Marcellus Shale Development
♦ February 22, 2011—Student Night at Villanova

One PDH will be awarded for most dinner meetings that you attend. Those interested in the PDHs can obtain supporting documentation at the sign-in desk prior to each event.

Looking for a Geotechnical Career Opportunity?

Have you considered a student internship or a co-op position? It’s a great way to “get your foot in the door” while gaining practical professional experience. Check the new geotechnical co-op and internship links on the G-I Student page at: http://content.geoinstitute.org/student.html.

G-I Chapters and Local Geotechnical Groups

As a 21st Century professional organization, the G-I aims to collaborate with local, national, and international geo-professional organizations. To meet that goal, the G-I has developed a strategic plan for outreach to local geotechnical groups to assist them in becoming a Geo-Institute Chapter. Check out this great link to other G-I Chapters and local Geotech Groups across the country: http://content.geoinstitute.org/groups/index.html.

The University of Delaware has initiated a Student Chapter. Please contact the Chapter President, Lauren Lobo at email address llobo@Udel.edu for more information. Congratulations to the GIUD!

G-I Twitter Brings You Quick News Updates

Twitter is a social networking tool for posting very brief updates, or “tweets.” The G-I launched its Twitter feed in April 2009 to announce updates to its website and other relevant news items. Since then, over 150 updates have been posted and more than 144 persons have become registered G-I followers. Visit our Twitter feed at http://twitter.com/GeoInstitute. You can check for updates or “follow” us using a Twitter account, an RSS reader, or one of the many other web applications that work with Twitter. Spread the word. Also check out the DVGI link at www.linkedin.com. Set up an account and keep up to date with business associates.
The Geosynthetic Institute is offering two short courses on MSE walls.

Due to the large number of geosynthetic reinforced MSE Walls that have failed in the local area and nationally as well, GSI is offering two MSE Wall courses at GSI in Folsom near the airport.

Course 1 – Geosynthetic Retaining Wall Failures and their Remediation  
On November 30, 2011

Course 2 – Construction Inspection of MSE Walls, Berms and Slopes  
On December 1, 2011

These courses are very focused and include 8 PDH’s each. Please go to their website at www.geosynthetic-institute.org/courses.htm.
Upcoming Conference: Save the Date:

4th International Conference on Grouting and Deep Mixing

New Orleans, Louisiana, USA
Wednesday - Saturday
February 15-18, 2012

Conference sessions will be in both plenary format and in tracks. ICOG and a Technical Advisory Committee of representatives from 20 countries chose the following topics based on 250 abstracts from over 30 countries.

- Analysis and Design: Deep Mixing
- Analysis and Design: Grouting
- Analysis and Design: Jet Grouting
- Anchors and Piles
- Dam Foundation Grouting
- Dams: Grout Curtains and Cutoffs
- Deep Mixing: Methods and Applications
- Deep Mixing: Performance Testing
- Grouting and Deep Mixing for Environmental Containment and Treatment
- Grouting for Seepage Control
- Grouting Performance Testing
- Highways and Transportation: Deep Mixing
- Highways and Transportation: Grouting Innovations in Grouting Methods
- Jet Grouting: New Methods and Applications
- Karst: Grouting Applications and Technology
- Levees and Flood Walls: Deep Mixing
- Low Mobility Grouting
- Materials: Cement Based Grouts
- Materials: Chemical and Other Grouting
- Mining: Grouting Applications and Technology
- Permeation Grouting
- Structural Support: Grouting and Deep Mixing
- Tunneling: Grouting and Deep Mixing Applications

Registration for Exhibition, Sponsorship and Attendance is open at www.grout2012.org
Upcoming Conferences and Seminars: Save the Date:

Ohio River Valley Soils Seminar XLII
Date: Friday, October 21, 2011, 7:30 am to 4:45 pm
Location: Millenium Hotel Cincinnati, 150 West Fifth Street, Cincinnati, Ohio

As professionals in the geotechnical field, we are consistently seeking to design and construct safe structures using economical construction practices. However, due to the high variability of the materials with which we deal (e.g., soil stratigraphy, shear strength, permeability, etc.), the values and conditions that are predicted do not always match those that are experienced. This may result in an over-designed but less economical structure, or an under-designed and unsafe structure. The 42nd Annual Ohio River Valley Soils Seminar (ORVSS XLII) will address lesson learned from failures and forensics, including geotechnical design, instrumentation, investigation, construction, case histories, etc. regarding building foundations, earth retention systems, embankments, foundation systems, ground improvements, roadways, and tunnels. ORVSS XLII will highlight innovative techniques or technologies implemented in forensic studies, predicted versus actual performance of structures, and innovative construction practices resulting from lessons learned. ORVSS XLII will provide Geotechnical Engineers, Geologists, Contractors, Material Suppliers, and other geotechnical practitioners an opportunity to share lessons learned on previous projects in order to continue the advancement of our professional field.

ACF Environmental is Hosting a
Stormwater & Articulating, Concrete Block (ACB) Design Seminar

Seminar Dates
December 7, 2011, Whippany, NJ
8:30 AM – 3:30 PM
December 8, 2011, Philadelphia, PA
8:30 AM – 3:30 PM

PDH Credits Available, 2 – Stormwater Design, 4 – ACB Design
Approved for PE’s in Florida, New York
New Jersey & North Carolina
To register email: jbressler@acfenvironmental.com
Job Posting:

**GEOTECHNICAL PROJECT MANAGER**

Kleinfelder is an employee-owned science, design, and engineering consulting providing solutions to meet our world's complex infrastructure and natural resource challenges. A firm with more than 2,000 employee-owners, Kleinfelder provides planning, engineering, scientific, technical, and management solutions. With nearly 50 years of experience, Kleinfelder’s reputation for providing innovative, commonsense solutions to the most complex challenges has solidified its status as a trusted partner to its global clients and a leader in the industry.

Working as a team, our bright people will deliver the right solutions

Kleinfelder's Exton, PA office is seeking a Geotechnical Project Manager.

The ideal candidate must have at least 8 years of experience in geotechnical consulting, construction observation and project management. This position is a leadership role, requiring the ability to guide and develop staff, and will work closely with the Geotechnical Group manager. Responsibilities will include proposal preparation, technical oversight, delivery, profitability, resourcing, safety stewardship, and management of quality and risk. The candidate should possess a pro-active, problem solving attitude with excellent verbal and written communication skills, and the ability to multi-task effectively.

A Professional Engineer license is required, with the ability to obtain an NCEES record within 2 months. A BS in Civil Engineering is required and MS in Geotechnical Engineering is preferred.

Some travel to project sites and other Kleinfelder offices is required. The Exton office offers a wide range of challenging project work and a great opportunity to develop professionally.

Kleinfelder offers an excellent compensation and benefits package, including: medical, dental, vision, life insurance, 401(k) plan, paid holidays, and employee-ownership. Kleinfelder is an Equal Opportunity Employer.

PLEASE SUBMIT YOUR RESUME VIA [WWW.KLEINFELDER.COM](http://www.kleinfelder.com) UNDER CAREERS AND PEOPLE / CAREER OPPORTUNITIES Req. No 5105
Job Posting:

Geotechnical Project Engineer
NTH Consultants, Ltd., Lehigh Valley, PA

NTH Consultants, Ltd. is seeking a Sr. Project Engineer with progressive experience in geotechnical engineering design to support our Mid-Atlantic operations, from our Lehigh Valley (Bethlehem, PA) office. Candidates should be able to demonstrate experience with design of deep foundation, earth retention, and ground improvement systems; materials testing related to geotechnical investigations; and related construction observation. Experience with the design of shafts and tunnels will be considered a plus, along with geotechnical instrumentation and monitoring programs.

A minimum of 7 years of experience with a BSCE and P.E. are required, MSCE is preferred. Responsibilities will include client development, proposal writing, project coordination, and staff supervision (technical guidance and mentoring of engineering staff). Candidates should possess strong interpersonal skills for contact with team members and clients, be a proficient technical writer, and be competent with engineering software applications for geotechnical design.

Candidate must be capable of performing and/or providing technical oversight for geotechnical design of above-ground and/or underground structures, as well as temporary/permanent earth retention systems, deep foundations, MSE walls, earthen structures, etc.; preparing and reviewing plans and specifications for geotechnical design/construction projects; developing geotechnical recommendations and design criteria for reports; and planning/performing geotechnical investigations.

Visit us at www.nthconsultants.com for a full description and to apply on-line under the Employment Opportunities tab at NTH.
UPDATE: New DVGI Website

Over the last several months we have added some additional content to the DVGI web site located at www.dvgi.org. The web site now includes links to our corporate sponsors web pages, past newsletters, the 2011-2012 DVGI events calendar, industry related links and events, and most notably a form for online reservations to our monthly meetings. We hope you will utilize the online reservation wherever possible to streamline the reservation process.

Please e-mail any of the DVGI Board members if you would like additional information added to the web site. Thanks to Genevieve Meehan for managing the site development.

HAVE DVGI PUBLISH YOUR ARTICLE

Do you have an interesting article on a project or individual in your organization that you would like to have published in the DVGI newsletter? Please submit your articles for consideration in an upcoming edition to Archie Filshill at archie.filshill@cetco.com

DVGI Merchandise Available for Purchase

1 GB memory sticks ($12); coffee mugs ($8); and lapel pins with the DVGI logo ($5) are available for purchase. See Ara Mouradian if you are interested in purchasing any of these items.

www.DVGI.org

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ASCE/G-I Members:
Read past and present issues of Geo-Strata magazine online at www.geoinstitute.org