I have said it many times and I will say it again – it’s all about the training. Training for designers, well drillers, salespeople and anyone involved in the geothermal industry. Everyone benefits when the geo industry as a whole is well trained and good at what they do.

This issue of the newsletter is certainly all about training. First and foremost I want to talk to you about the 2011 WGA Conference and Annual Meeting. Last year’s conference was a huge success and this year proves to be even better. There are 16 sessions being presented plus two keynote speakers. There will also be exhibitors showing the latest products available.

Don’t forget the WGA Annual Meeting will be held during the conference. One item of business for the meeting is board elections. Members will be voting on three board of directors seats. If you are interested in helping guide this organization into the future, you are welcome to run for the board. Go to the WGA website and submit your nomination form by March 1, 2011.

The 2011 WGA Conference and Annual Meeting, March 9 and 10, 2011, held at the Hotel Mead in Wisconsin Rapids is the biggest geo event of the year – you don’t want to miss it.

A new series of training sessions, sponsored by the WGA and the Energy Center of Wisconsin, is also being offered in Wisconsin Dells. There are three, one-day sessions each running from 8 am – 4 pm. There is a discount if you register for all three. Read about each session on page 3.

The Better Buildings: Better Business Conference is being held in Wisconsin Dells on March 2, 3 and 4, 2011. This conference is hosted by the Energy Center of Wisconsin. There are over 70 conference sessions during the three-day event. Again, read more about this conference on page 4.

Vermeer Wisconsin is also having a full-day Geothermal Drilling Applications school on February 4 in Butler WI. There is more information on this school inside this newsletter as well.

Each of these training schools/seminars will make participants better at what they do – making our industry better as whole. That’s what WGA is all about, promoting and improving the geothermal industry.

Hope to see you at the Hotel Mead in March.

Brian Urlaub
WGA President
Wisconsin Geothermal Association
Winter 2011 Newsletter

Wednesday, March 9, 2011

Noon - Lunch and Keynote Speaker

Geothermal Heat Pumps: The Road to 30%

Interest in geothermal is rapidly growing in the US. New organizations are forming to support this growing industry. Legislators are becoming more interested not only because of the renewable side but also potential new jobs in the market. Learn how all this will impact the industry and YOUR business.

Speaker Jack DiEnna, GEO-NII

1:00 p.m. – 2:30 p.m. Session 1

Selling GSHP Systems Using Financing Options

Tips from some of the largest contractors in how to close more sales by incorporating financing into the sales process.

Presenter Eric Howarth. As Vice President of Contractor Services, Eric is responsible for developing and executing EGIA’s overall contractor services strategy. Additionally, Eric manages contractor benefits programs that are designed to help EGIA’s 13,000+ contractor members grow their energy efficient and renewable energy businesses.

Geo 101: The Renewable Bridge Technology

Presenter Leo Udee. Retired from Alliant Energy and now working for MEP Associates, Leo will share his 15 plus years of geothermal experience during this session. He will teach strategies that relate geothermal with renewable energy to increase sales. Leo’s extensive jobsite photo collection is an education in itself, and all attending are sure to see and hear Leo’s long term goal for delivering efficiency in all energy systems.

Commercial GEO Installs: The Engineer’s Perspective

Misunderstandings can occur between what the engineer or designer has specified and the means and methods in which the contractor is installing the system. Learn of these common misconceptions from a construction administrator’s point of view. By the end of this presentation contractors will have a better understanding of why it is important to follow the specifications requirements.

Presenter Tony Kriel. Tony joined Sustainable Engineering Group in early 2008. His project experience includes specializing in energy modeling, renewable energy technology analysis and geothermal design. Tony has also specialized in geothermal construction administration services to ensure proper operation of geothermal systems.

Troubleshooting The “Bad” Job

Presenter Rick Hiles the Mid-Central District Region Manager for ClimateMaster, Inc and a 32-year veteran of the HVAC industry. His first 14 years in the industry were in performing service, installation and sales for residential and light commercial applications. Rick is an IGSHPA Accredited Installer and Trainer and has passed the Certified Geothermal Designer test through IGSHPA. He provides technical and application training on Geothermal Energy systems for distributors, manufacturers’ representatives, contractors and other professionals in the HVAC industry.

3:00 - 4:30 p.m. Session 2

Antifreeze - Problems & Solutions

This presentation provides insight on how best to use glycols for freeze protection and discusses common installation problems such as using poor quality water, inadequate corrosion protection, and over-dilution of glycols. Many times the design engineer, mechanical contractor, or owner-operator fail to appreciate the importance of following the manufacturers recommendations for effective operation of glycol based heat transfer fluids.

Presenter Kevin Connor - Mr. Connor received a BS in Chemistry in 1985 from the University of Waterloo (Canada). He has worked for The Dow Chemical Company for more than 25 years. He is currently a Senior Development Specialist responsible for technical support of the DOWTHERM* and DOWFROST* inhibited glycol product line.

Design of Large Commercial GSHP Systems

This presentation will examine the proper steps that need to be taken to ensure a properly designed commercial geothermal system starting with load calcs, to performing the accurate energy calcs, and selecting the correct equipment, pumps, and piping layout for the application.

Presenter Jeff Urlaub President/CEO of MEP & Associates, LLC, based in Eau Claire. With more than 16 years professional experience, Jeff is responsible for some of the firm’s most sophisticated and complex design projects. He earned his BS in Mechanical Engineering from the University of Florida and is a registered professional mechanical engineer in many states.

Maximizing Your Profits During A Down Economy

Presenter Bill Kinnard, Grandy & Associates

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Other Conferences and Training Available to WGA Members...

New Geothermal Training Series

This series of geo training sessions are a must for anyone in the industry. The registration fee for attending each training is $169, which includes continental breakfast and lunch. Attend all three courses in the Geothermal Series for $449—a savings of $58.

Location
Chula Vista Resort
2501 North River Road
Wisconsin Dells, WI 53965
608.254.8366

Agenda
7:30am | Registration
8:00am-4:00pm | Program

Geothermal Ground Loop Design, Sizing and Application
Thursday, January 20, 2011
Designing a geothermal system requires knowledge in many different areas of HVAC design in order for the system to operate successfully. Learn about the four basic systems of a geothermal installation, including the ground loop, refrigeration system, air system and hot water system. Presenting faculty: Joel Clary, P.E., MBA, CGD, IGSHPA Trainer

Installation of Geothermal Heating and Cooling Systems
Thursday, February 3, 2011
Learn about the different types of ground loop systems and their installation using International Ground Source Heat Pump Association (IGSHPA) standards, software programs to do the loop design and calculate potential energy savings, AHRI rating process and start up/commissioning of the system. Presenting faculty: Richard W. Hiles

Servicing and Troubleshooting Geothermal Systems
Thursday, February 24, 2011
Examine the operation of geothermal ground source heat pump systems and how the refrigeration system works. We will go through performance commissioning of the heat pump system to verify the capacity and efficiency of the heat pump using HE/HR principles. Identify the basic refrigeration components and refrigerant charge techniques using superheat and subcooling, and verify that the components are working properly. Learn the most common service procedures and how to properly troubleshoot ground source heat pump issues. Presenting faculty: Brian Urlaub

Vermeer Wisconsin Holds Drilling School

Vermeer-Wisconsin’s full-day Geothermal Drilling Applications School is dedicated to geothermal installations and drilling techniques. Special speaker presentations include: Joel Clary of Earth Energy Services and certified trainer for IGSHPA; Brian Urlaub, President of the Wisconsin Geothermal Association; David Bokhoven, Trenchless Solutions Specialist, Vermeer Corporation.

The school will be held on Friday, February 4 at Vermeer-Wisconsin, 5445 N. 131st Street in Butler WI. Check in time is 7:30 a.m., class begins at 8:00 a.m. Along with our guest speakers, our trenchless specialists, parts and service managers and technicians will be on hand to answer all questions you may have. Refreshments and lunch will be provided.

For registration please call:
Mara Nugent
800-964-6462 ext. 2121
mnugent@vermeerwisconsin.com

Expanded program features record-setting 68 sessions on high performance HVAC, energy efficiency and green building!


Discover the techniques and strategies you’ll need to design and build the next generation of energy-efficient and net-zero energy homes. Choose from nearly 60 speakers and 70 conference sessions to get the tools you need to thrive in a changing climate. Featured topics and presenters include:

- Geothermal Heat Pump Systems and Green Building Synergy with Brian Urlaub
- Myths, Facts and Barriers to Geothermal Heat Pumps in Residential Application with Tom Niesen
- Geothermal Heat Pump Practices: The Good, the Bad, and the Not so Ugly with Leo Udee
- Designing Hot Water Recirculation with Solar Water Heating Systems with Andy DeRocher
- Designing Zero Energy Homes: An Architect’s Approach with Peter Pfeiffer

Find the latest conference information and register now online, visit www.ecw.org/betterbuildings. If you have any questions, please contact Kristi Kaiser at 608.238.8276 x135.

Calendar of Events

January 20, 2011
WGA Regular Board Meeting - Hotel Mead, Wisconsin Rapids. 10 a.m. - 2 p.m.

Geothermal Ground Loop Design, Sizing and Application - Chula Vista Resort, Wisconsin Dells. 8 a.m. - 4 p.m.

February 3, 2011
Installation of Geothermal Heating and Cooling Systems - Chula Vista Resort, Wisconsin Dells. 8 a.m. - 4 p.m.

February 4, 2011
Geothermal Drilling Applications School - Vermeer Wisconsin, Butler WI. Begins 8 a.m.

February 24, 2011
Servicing and Troubleshooting Geothermal Systems - Chula Vista Resort, Wisconsin Dells. 8 a.m. - 4 p.m.
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**How To Get Government Geothermal Projects**
Topics covered in this session include: developing geo opportunities in a government market; how governments buy and sell thermal and mechanicals, dealers and distributors sell; what governments need in energy efficient and renewable HVAC solutions; and closing the gap with design-built and geothermal performance contracting.

**Presenter Mike Lemmon** who is the Program Manager for WaterFurnace’s Government Solutions Group. He is responsible for bringing geothermal solutions to government customers. Mike is a retired U.S. Army infantry officer with experience in government contracting, energy performance contracting, sales and commercial HVAC marketing.

*Thursday, March 10, 2011
8:30 a.m. - 10:00 a.m. Session 3
Directional Drilling & Installation Techniques*
Learn about installing geothermal with vertical and trenchless methods using the Vermeer FX D20x22 drill that will do both vertical and horizontal boring.

**Presenter Dave Bokhoven** from Vermeer

**Residential Loops & Pumping Options**
This session will discuss the different loop options available and how to choose and layout the right loop for the job. Discussion will also include the pros and cons of pressurized and non-pressurized loop pumps and the importance of pump sizing.

**Presenter John Riffe.** John has been involved in the sales, service and installation of geothermal heat pumps for over 15 years at the manufacturing, distributing and contracting level. He is an IGESPA accredited trainer and a factory certified instructor for geothermal system and loop design.

**Focus on Energy “New Home Program” Enhancements**

**Presenter Joe Nagen** who is the owner of Home Building Technology Services in Kaukauna, WI, a consulting firm specializing in Home Building Performance. Working with the Wisconsin Energy Conservation Corporation of Madison, Joe helped co-author the nationally recognized Wisconsin Energy Star Homes Program where he currently serves as Technical Director and is also a member of the program team.

**How To Effectively Market Your Company**
This informative session will offer advice on how to more effectively direct your marketing efforts by utilizing the best media vehicles to deliver your message and reach your target audience. Come prepared with your questions about yellow pages advertising, online options, television ads, radio and more.

**Presenter Shelly Hendricks.** Shelly is currently the Media Director for Insight Creative, Inc. a leading full-service advertising agency located in Green Bay, WI, serving a wide array of local, national and international consumer and business-to-business clients.

**10:30 - Noon Session 4**

**Low Cost Measurement Tool For Soil Thermal Properties**
This session summarizes simple methods to estimate thermal conductivity and specific heat of a wide range of earth materials accurately enough for feasibility evaluation without having to do a loop test.

**Presenter Roger Miller.** Roger obtained a BS in civil and environmental engineering in 1979 and his MS in geotechnical engineering in 1980. His 30 years of practice includes extensive experience in measurement of soil and rock physical properties.

**Hydronic Systems: Controls, Controls, Controls.**
Get a good understanding on how important proper controls are to the efficiency and overall operation of the geo hydronic system. Look at different options that can make your life easier.

**Presenter Brian Urlaub** Sales Manager for Enertech Companies and Regional Training Manager where he provides comprehensive training to the GeoComfort dealer network.

**Pre-Fabricated Vault Systems**
Learn about the different types of underground geo vaults, the do’s and don’ts of vaults, how to write a proper spec for a vault and when vaults are a good idea.

**Presenter Mike Golightly** who has been in the geo industry over 30 years and has done presentations for IGESPA, AIA, BOMA and NGWT.

**Net Zero Energy Home Case Study**
Case study an actual net zero energy home that will cover the geo installation, how the energy is used and how this affects the overall energy use throughout the year. **Presenter Paul Svoboda**, FHP-Bosch

**Lunch & Keynote Speaker: Noon – 1:00p.m.**

**Who is GEO? The Geothermal Exchange Organization**
Finish the conference with this overview and discussion of who is the new GEO organization, what their role is in the industry, how can you get involved and what are the benefits.

**Presenter Steve Smith**, President/CEO Enertech Manufacturing. Steve was first introduced to geo in 1983. In 1996 he and his wife, Karen, started Enertech, Inc, which today has territory across the midwest becoming the largest stocking geothermal distribution company in North America.