

The SOURCE

IGSHPA Newsletter

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IGSHPA Spearheads Licensing Change

On Thursday, January 13, IGSHPA representatives attended a meeting of the Oklahoma State Department of Health's Mechanical and Hearing Board and Committee. IGSHPA Director Dr. Jim Bose and Assistant Director Lisa McArthur were there to answer any questions the Board might have about specialized training for ground source heat pump installers.


Current Oklahoma regulations require a Process Piping license to install geothermal system piping. This license has as its focus metal piping and welding, which are useful when installing and maintaining large commercial systems that include boilers, cooling towers, or chillers. However, the current licensing requirements are largely inappropriate for the residential geothermal market, which exclusively uses high-density polyethylene (HDPE) pipe.

For years, IGSHPA has been a self-regulating force in the industry by providing training and standards for the handling, joining, and installing of HDPE pipe. As the industry's standard-bearer, IGSHPA requested that the Committee consider adding a separate category in their licensing

requirements to accommodate the unique situation presented by geothermal systems. This addition would more closely align the Board's licensing requirements with the current state of the art in geothermal design and installation practices.

The proposed change would add Category 7, a provision for a ground source license that would entitle the licensee "to install, alter, modify, service, maintain, or repair all piping for a ground source pipe loop."

After discussion, the Committee unanimously approved the proposed addition of Category 7. Industry leaders were invited to work with Mr. Jud Collins, Occupational Licensing Programs Supervisor, on the language for this new category. The exact wording of Category 7 will be submitted to the Committee on March 9, 2000. Additional work will then be done to outline the specifics of testing, certification, and fees.

The ground source piping license addition is on the fast track to approval by the Committee and the Oklahoma State Legislature. Watch upcoming articles of *The Source* for progress reports. 

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Bulletin Board

Installation Workshops Set for 2000

120 students have participated in IGSHPA installation Workshops since November of 1999. This training occurred at 10 different sites across the country. IGSHPA continually strives to provide the highest quality training available in ground source heat pump technology. IGSHPA has planned numerous opportunities to participate in training in the next year. The 2000 training schedule:

At Stillwater
March 29-31
May 15-17
September 20-22
November 8-10

At the Industry Conference Virginia
December 4-6

For more information call:
800-626-4747

Directory Listing Correction

The Geothermal Heat Pump Consortium's address is incorrectly listed in the 2000 Membership directory, Business Category. The correct mailing address is 701 Pennsylvania Avenue NW, Washington, DC 20004.

We apologize for any inconvenience this may have caused. IGSHPA has made every attempt to correctly list our members and their pertinent data. Contact the IGSHPA office (800-626-4747) to report any corrections.

Web Address

The article in the Nov./Dec. issue of *The Source* on Brookhaven National Laboratory's Grout Mix 111 has generated much interest. More information can be obtained by visiting BNL's web site at www.das.bnl.gov/ghpwb.htm



IGSHPA's own Randy Perry receives Oklahoma State University's College of Engineering, Architecture & Technology 1999 Outstanding Employee award. From left to right are IGSHPA Director Dr. Jim Bose, Randy Perry, and CEAT Dean Dr. Karl Reid.



Smart School Opts for Geothermal Energy

Charlestown J&I School at St Austell Cornwall, England, recently announced two major achievements. It appeared at the top of the list in the Sunday Times league tables of National Curriculum results, and it has become the first school in the UK to be heated and cooled using a geothermal system (also called an EarthEnergy system in the UK). One of the largest closed loop ground coupled heat pump systems in the country was installed over the 1999 summer holidays and was commissioned during last term.

Cornwall County Council decided to replace a conventional chiller and the roof-mounted air handling unit that employed direct electric heater batteries with a completely integrated unit from ETT that incorporates dual reverse cycle water source heat pumps. The heat pumps are connected to an array of closed loop ground heat exchangers in the school grounds. The only visible sign of the ground loop installation in the school grounds is an area of newly sown grass.



Charlestown J&I School at St Austell Cornwall, England

The ETT unit is a Model PAC 260D O/R with twin Maneurop MT160HW 4D compressors. It is packaged in a welded aluminium frame and casing providing very high resistance to the elements – which is particularly important in a location close to the sea. The ETT air handling unit is capable of operating with full fresh air, through to complete re-circulation. This capability allows the unit to cool passively by

(continued on pg. 6)

NOTICE: To Design Engineers

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IGSHPA Announces Sponsorships for the 2000 Technical Conference and Expo

**Deadline
February 15**

IGSHPA's popular Technical Conference and Expo has been growing at a record rate. An excellent forum for the GeoExchange community, this annual event provides numerous opportunities to increase a company's visibility among industry leaders.

This year IGSHPA will build on last year's record attendance by including an Installation Workshop as part of the conference program. Other new features include short courses on Thermal Conductivity and Design Processes for Architects and Engineers. The popular demonstration day activities are also being expanded.

IGSHPA is now accepting sponsorships for the upcoming Technical Conference and Expo, to be held May 14-17, 2000, in Stillwater, Oklahoma. Companies and individuals wishing to participate in this program can choose from several sponsorship levels, as follows:

Benefactor- \$15,000 or Above

- 5 Conference Registrations
- 8x10 Exhibit Booth
- Full page advertisement in the Conference Program
- Back Cover of Conference Program and Proceedings
- Prominent placement of your name & logo in the Brochure and Conference Program

Partner- \$10,000 to \$14,999

- 5 Conference Registrations
- 8x10 Exhibit Booth
- Full page advertisement in the Conference Program
- Prominent placement of your name & logo in the Brochure and Conference Program

Sponsor- \$5,000 to \$9,999

- 2 to 4 Conference Registrations
- Discount of 50% on an 8x10 Exhibit Booth
- Half page advertisement in the Conference Program
- Prominent placement of your name & logo in the Brochure and Conference Program

Co-Sponsor- \$2,000 to \$4,999

- 1 or 2 Conference Registrations
- Discount of 35% on an 8x10 Exhibit Booth

- One quarter page advertisement in the Conference Program
- Featured listing in the Brochure and Conference Program

Supporter- \$1,000 to \$1,999

- Discount of 50% on one Conference Registration
- One-quarter page advertisement in the Conference Program
- Featured listing in the Brochure and Conference Program

Contributor- \$500

- Discount of 25% on one Conference Registration
- One eighth page advertisement in the Conference Program
- Listing in the Brochure and Conference Program

Friend- \$250

- Business card size advertisement in the Conference Program
- Listing in the Brochure and Conference Program

Special Event Sponsor- Negotiable

- Sponsorship of reception, lunch, break, or promotional item
- Prominent placement of your name & logo on a product
- Prominent placement of your name & logo in the Conference Brochure
- Prominent placement of your name & logo in Conference Program

Contact Heath Chelesvig or Shelley Fitzpatrick at 800-626-4747 for more information by February 15, 2000.



(Smart School, continued from pg. 3)

circulating fresh air on mild days, adding to the overall efficiency of the design. Operational costs for the new system are expected to be one-fourth to one-third less than those of a comparable conventional system.

Commissioned by The Design & Maintenance Consultancy of Cornwall County Council, the system was designed and installed by GeoScience Limited of Falmouth, in conjunction with Kensa Engineering, County Heating, and Saxty Engineering. The ETT unit was supplied by ClimaGas Limited.

The first EarthEnergy systems to be installed in non-residential buildings in the UK have only been commissioned this year. They include:

- Health Centre – St Mary's, Isles of Scilly
- Web of Life Building – London Zoo, London
- Botallack Count House – National Trust – Cornwall
- Millennium Activity Centre – National Trust – Brancaster, Norfolk

Several larger installations are expected to be installed in the UK during 2000. For more details regarding the state of the EarthEnergy industry in the UK, contact Debbie Allen at GeoScience



Workers drill the holes for the ground heat exchanger at Charlestown J&I School.

Limited: 01326-211070, or visit the GeoScience Limited web site at <http://www.earthenergy.co.uk>

Details of the ETT unit can be obtained from Don Sullivan at ClimaGas Limited (phone 01242-511360), and Denis Mattos of The Design Consultancy can be reached at 01872-323519.

For more information on this particular installation, contact GeoScience Limited, EarthEnergy systems, Falmouth Business Park, Falmouth, Cornwall TR11 4SZ, UK. Call 01326-211070, or e-mail earthenergy@geoscience.co.uk



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Fred's "FAQs" by Fred Jones

Question: Are there tests that can be used to help determine the thermal capacity of the soil in which the ground heat exchanger is going to be placed?

Answer: Some of the tests that are used determining thermal capacity are:

In-situ thermal conductivity tests on bore holes, laboratory tests, USDA county soil surveys from the Soil Conservation Service, soil tests performed by geotechnical soils engineers, and field map data. The most accurate test data comes from a properly conducted in-situ test. The information from these tests can be used in conjunction with computer design programs to determine the size and length of the heat exchanger field.


In the next issue of *The Source*; a look at retro fits for geothermal.

If you have a question about the ground source heat pump industry for Fred, email him at jfred@okstate.edu



New Tracks Slated for Technical Conference

The 2000 Ground Source Heat Pump Technical Conference & Expo scheduled for May 14-17 in Stillwater will feature many new cutting edge topics, including:

- Ground Water Issues
- GSHPs and Radiant Panel/Hydronic Applications
- An Installation Workshop running concurrently with the conference. 

Damiani Named President

Jim Damiani has been named President of York International Corporation's Unitary Products Group, headquartered in Norman, Oklahoma. The appointment becomes effective February 1, 2000.

Damiani is a 36-year veteran of the heating, ventilating and air conditioning industry. Since 1995, Damiani has been President of Oklahoma City-based ClimateMaster, Inc.

York International Corporation, based in York, Pennsylvania, is the largest independent supplier of heating, ventilating, air conditioning and refrigeration products in the U.S., and a leading international supplier. York has approximately 25,000 employees worldwide, including 1,100 at its Norman plant. 