

ADVANCED GEOTHERMAL TECHNOLOGY

by ECR Industries, Inc. makers of
The Great Aire Comfort System™
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June 22, 2009

EXHIBIT

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Mr. Jerry Farrell, Jr.
Commissioner
Department of Consumer Protection
Room 103
State Office Building
165 Capitol Avenue
Hartford, CT 06106

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JUN 22 2009
LEGAL DIVISION
CONSUMER PROTECTION

Re: Geothermal Informational Session

Dear Mr. Farrell:

It was a privilege to be invited to testify at the Direct Exchange ("DX") geothermal Informational Session on June 8, 2009. At that time, I offered oral testimony which I would like to support with the following written testimony. I would also like to incorporate by reference my Letter of April 22, 2008 to you wherein I provided general and specific information on our direct exchange geothermal systems and recommendations on the regulations as proposed at that time. In this letter, I will only comment on some of the specific topics that were raised on June 8, 2009.

First and foremost, we strongly support training and the use of trained personnel in all phases of the installation of our direct exchange geothermal equipment. There is nothing more disconcerting than to have a customer complaint that could and should have been avoided had the installing personnel only followed our instructions. Anything that can be done by the State of Connecticut to support training and the use of trained personnel in accordance with the manufacturer's requirements would be greatly appreciated.

Copper is a very desirable material to use with direct exchange geothermal systems because it is readily available, and it is used throughout the HVAC industry. Copper allows the direct transfer of heat from the ground to the refrigerant, and it has a very high corrosion resistance. As I indicated, we had a few failures on our field installations where we had not installed additional corrosion protection. Since adding a magnesium anode to all systems, we have had no failures. In addition, to my knowledge, we have never had a corrosion failure with any of the systems that we have installed in the State of Connecticut going way back to our first installation in Simsbury in 1995. Therefore, we believe that no regulations regarding the use of copper are required.

The drilling equipment that is used in installing our systems is different from that used in the water well drilling industry. We primarily use the equipment designed for and used by blasting contractors in rocky areas. This equipment is well suited for use in installing direct exchange geothermal systems because it can provide a small diameter hole, it can drill at any angle, and the cost for drilling holes is significantly less than other options. These companies do not have personnel who are trained or licensed as water well drillers because they do not provide that type of service. If the State of Connecticut sees a need to license drillers for installing direct

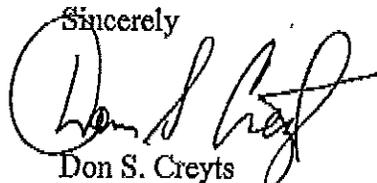
exchange geothermal systems, a specific set of requirements should be established for this category of drilling.

A number of comments were made regarding various types of grouts. From a thermal conductivity standpoint, fine sand is generally the best material available. It has a very high "k" factor of 1.4 as compared to bentonite with a "k" factor of 0.3 and the enhanced geothermal grouts going up to as high as 1.2. The higher the "k" factor the better the heat transfer, the higher the capacity of the system, and the shorter the length of copper tubing that needs to be put in the ground. In addition, it is quick and easy to install properly and maintains its heat transfer capability over the life of the system. On the other hand, the bentonite grouts can dry out during the summer and leave shrinkage cracks which prevent heat transfer. This will cause the system to trip off during the air conditioning season. The enhanced geothermal grouts are expensive, they are difficult and expensive to install, they extend the field work by one to two days, and they require more drilling to get the necessary heat transfer.

In regard to ground and ground water pollution, it should be noted that the only materials we use are non toxic as determined by USEPA regulations. We estimate that contractors have drilled over 500 holes in the State of Connecticut to install our direct exchange geothermal systems. Tens of thousands of holes have also been drilled for our systems throughout the United States. These angled holes are 3 inch diameter about 70 feet long and less than a vertical depth of 60 feet. To date, no one has ever informed us that any of these systems have ever contributed to or been a source of any ground and/or ground water pollution. It is our perspective that sufficient regulations already exist regarding air and water quality standards that the industry has to follow and that additional regulations in this area would only serve to increase the installed costs of geothermal systems to the consumers in the State of Connecticut.

Finally, in this era where global warming is a major concern, the installation of geothermal systems is a quick and cost effective way to reduce the effect of the green house gases produced by residential and commercial fossil fueled heating systems. In addition, geothermal systems significantly reduce the amount of electricity required for air conditioning use - again reducing greenhouse gases generated by the electric utility industry. It is hoped that the State of Connecticut will help the geothermal industry improve the cost effectiveness of geothermal systems and promote their use. If we can be of any further assistance, please feel free to contact us.

Sincerely



Don S. Creyts
President