



New England Geothermal Professional Association  
44 Bradstreet Road, North Andover, MA 01845  
Negpa.org

December 14, 2010

State of Connecticut  
Department of Consumer Protection

RE: Comments on Draft regulations for Well drilling and GeoExchange Systems - Sec 25-128-33 thru 25-130-1

Gentlemen/ladies,

In response to your invitation to solicit comments on the draft regulations, we are pleased to provide the following comments on behalf of the membership of NEGPA. Each received a copy and was encouraged to review and comment.

First, we would like to applaud your efforts. The regulations are broad-based and comprehensive and cover all of the aspects that are currently involved in geothermal exchange systems. Yet, the regulations also provide means to address new technologies within its framework.

We do have a few specific comments on areas that we see as needing clarification.

**Section 25-128-36 (32)** – the definition states that water will be pumped back into the same aquifer’s “specific zone of influence”. What is an aquifer’s zone of influence? We see this as overly broad requiring more definition.

**Section 25-128-39a** – Geoexchange boreholes – the proposed draft states that the boreholes should be 4x the size of the ID of the loop pipe. This needs to be clarified and expanded to include a requirement on the minimum annular space. There are new closed loop methods that are concentric based and utilize a larger outer casing. Based upon the definition as presented, these boreholes would require the borehole diameter to be 12” or greater. This creates an undue economic hardship, where the intent is to provide a borehole diameter that has sufficient room to enable the proper placement of grout. Might we suggest the following clarification?

*When multiple tubes are to be exposed to grout, the borehole needs to be 4X the diameter, however in instances where a single exchanger is in contact with the grout, then the borehole must be 3-4” larger than the OD of that pipe to provide ample room for the installation of grout via a tremmie pipe.*

**Section 25-128-39c (3) (c)** – pressure testing – we strongly advocate that air or inert gases not be used for pressure testing. These fluids are compressible. Their stored potential energy can create an explosive discharge with the potential to injure. All loop testing should be done on liquid-filled piping to eliminate any compressive storage.

**Sec. 25-128-48a. Annular space - (a) (1)**- the annular space shall be **filled** as completely as possible from the bottom of the casing

**Sec. 25-128-51 - Test of Yield** Last sentence - "Geoexchange bore holes for closed-loop geoexchange systems shall not be yield tested." We suggest that it be changed to read "...are not required to be yield tested." Some clients might want the information, we do not want the regulations prohibiting them from doing so.

**Sec. 25-128-62b.** Geoexchange System Completion Report

From our reading, it appears that only one well completion report is required to be submitted for each loop field regardless of whether it contains one or hundreds of geoexchange boreholes. Boreholes in large loop fields could conceivably encounter different geology, aquifer thicknesses, etc. The department may want to consider a requirement for one completion report per 10 boreholes or per lateral circuit so that there is a provision for collecting information describing different lithologies and thicknesses, if encountered.

**Sec. 25-129** - The consensus of the group is that there are too many driller categories. We believe that they may create confusion in the regulated community and amongst the public.

Thank you for the opportunity to submit written comments. If you have any questions, or need further clarification, please feel free to contact me at [kevin.maher@negpa.org](mailto:kevin.maher@negpa.org)

Yours truly,

A handwritten signature in black ink, appearing to read "Kevin P. Maher". The signature is fluid and cursive, with a large initial "K" and "M".

Kevin Maher  
Co-founder & President  
NEGPA