

EARTHLINKED  
TECHNOLOGIES

infinite Energy for Heating and Cooling

May 8, 2008

RECEIVED

MAY 09 2008

DEPT OF CONSUMER PROTECTION  
OFFICE OF THE COMMISSIONER

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

RE: Proposed Regulation of the Department of Consumer Protection Concerning Well Drilling

Dear Commissioner Farrell:

As a follow up to the testimony given on April 22, 2008 concerning the proposed Regulations of drilling for geothermal heat pumps, I would like to state that we do not oppose the promulgation of appropriate and reasonable regulations, but do contest the adoption of the Proposed Regulations because of the:

- Lack of legislative authority (please see attachment #1 to my letter of April 16, 2008).
- Absence of any reasonable connection between many of the proposed regulations and what is necessary to protect groundwater in the installation of the small diameter, shallow bore holes used for direct exchange geothermal heat pumps.
- Exclusion of direct geexchange borehole drillers from the Connecticut marketplace by creating a monopoly for water well drillers who can only drill holes that are less efficient, larger and much more expensive than necessary, and whose larger, more expensive equipment can not access many of the retrofit installation sites that direct geexchange systems now serve.
- According to the presentations by many Connecticut contractors on April 22, the Proposed Regulations would have the effect of unnecessarily and substantially raising the installed cost of direct geexchange systems, drive contractors from the market and defeat the implementation of energy and environmental saving technology.
- Connecticut Promotion of Direct Geoexchange Heat Pumps: The public policy of the State of Connecticut supports the promotion of clean, renewable energy technologies. Therefore the

State promotes the installation of Direct Geexchange heat pump systems. Through the Connecticut Energy Efficiency Fund, a \$500 per ton incentive (maximum incentive is \$3,000) for the installation of ARI-rated Direct Geexchange systems is offered by Connecticut Light & Power and United Illuminating Company. All geothermal systems must be performance-tested in order to qualify for the incentive.

Connecticut Light & Power website:

- ❖ <http://www.cl-p.com/clmres/energy/geothermal.asp>
- ❖ [http://www.cl-p.com/clmres/energy/VIP\\_Direct\\_DX\\_Worksheet.xls](http://www.cl-p.com/clmres/energy/VIP_Direct_DX_Worksheet.xls)

United Illuminating Company:

- ❖ <http://www.uinet.com/uinet/connect/UINet/Top+Navigator/Your+Home/UI+Products+&+Services/Geothermal+Heat+Pumps/>
- ❖ [http://www.uinet.com/uinet/resources/file/ebd4f90cc8e6458/VIP\\_Direct\\_DX\\_Worksheet.xls](http://www.uinet.com/uinet/resources/file/ebd4f90cc8e6458/VIP_Direct_DX_Worksheet.xls)

- Erroneous testimony by Dennis Cleary: Mr. Cleary of Cleary and Associates, Lobbyists, erroneously stated in the record that Direct Geexchange heat pumps are prohibited in the states of Minnesota and Michigan. In fact, approximately 100 EarthLinked systems are lawfully operating in the State of Michigan. The first was installed in 1987 and the rate of installations is accelerating as energy costs and air quality concerns accelerate. Direct geexchange systems are specifically defined by the Michigan Department of Environmental Quality, but are not regulated because they do not extract groundwater.

[http://www.michigan.gov/documents/deq/dcq-wd-gws-wcu-ghpsguidance\\_195216\\_7.pdf](http://www.michigan.gov/documents/deq/dcq-wd-gws-wcu-ghpsguidance_195216_7.pdf)

Local health departments have the authority to regulate groundwater, but only one of the 43 districts regulates direct geexchange systems.

Attached is a copy of a permit for the installation of an EarthLinked direct geexchange system issued in Minnesota on April 24, 2008, to show that they are permitted. We are not aware of any state that prohibits direct geexchange systems.

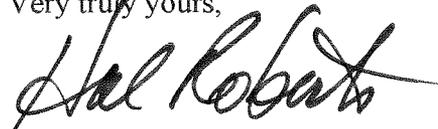
We respectfully suggest that:

- 1) The adoption of Regulations of geexchange heat pump installation must await the grant of appropriate legislative authority.
- 2) In the interim, an ad hoc advisory committee can be assembled to make suggestions of appropriate and reasonable regulations. That committee should include representatives from a direct exchange geothermal heat pump manufacturer; that segment of the drilling industry that currently drills geothermal bore holes for direct exchange heat pumps in Connecticut; scientists from the appropriate state agencies who are charged with the responsibility of protecting groundwater; a technical expert who is not employed by a state agency, such as a hydrologist or academician in a relevant field of study; and a direct geexchange heat pump dealer or sales representative in the State of Connecticut.



- 3) For clarity, any regulation of direct geotexchange heat pump borehole drilling should be stated separately from water well regulations.
- 4) Appropriate regulations be written with a reasonable connection between the regulations and what is necessary to protect groundwater and the public health.

Very truly yours,



HAL ROBERTS, CEO

Enclosures

email cc: Jerry Padula, Esq.  
Elisa A. Nahas, Esq.



No. 83081913

# PERMIT

A permit for construction is hereby approved and issued to

Elvorne Garner

for this structure under existing regulations

Type of Structure Geothermal Pump & Copper Ground Loops

Date 11-24 2008 Size \_\_\_\_\_



Office of Planning and Zoning

Planning and Zoning Office of Watonwan County  
Building Permit Application  
Permit # 830819B

Permit for use ; for occupancy ( ).  
Application is hereby made to erect ( ); extend ( ); other ( ) \_\_\_\_\_.

Applicant's Name: Elverne & Louise Ganner Date: 4/23/08 Phone: 507/375-4648  
Applicant's Address: 33751 State Hwy 4, St. James, MN 56051  
Name of Owner(s) and Address: Same  
Address of Property: \_\_\_\_\_ # of Acres: \_\_\_\_\_  
Location (Legal Description): SE 1/4 of Sec: 11 of Township: St. James  
Parcel# \_\_\_\_\_  
Need To Apply For New Address: Yes or  (Fill out new address application)

Are you near a public body of water (Within 1000ft)? Yes \_\_\_\_\_ No   
If so, distance: \_\_\_\_\_ ft.  
Public Body Water Name: \_\_\_\_\_ Class (If applicable): \_\_\_\_\_  
Is proposed construction in the Floodplain? - Yes \_\_\_\_\_ No   
Zoning District: A-2

Proposed Construction (Include Building Dimensions W x L x H):  
Thermo heat pump + Copper Ground Loops

If this is a wind turbine, what are the kilowatts? \_\_\_\_\_. If the kilowatts are over 125 kilowatts, a Conditional Use Permit is required.

Does this project require an electrical inspection? yes or no (If yes, handout electrical inspection pamphlet)

Number of Bedrooms (If applicable): \_\_\_\_\_  
Contractors Name: Earth Linked Tech Registration # \_\_\_\_\_  
Estimated Building Cost: \_\_\_\_\_ Estimated Date of Completion: \_\_\_\_\_

Do the proposed building(s) require an MPCA Feedlot Permit? Yes \_\_\_\_\_ No   
MPCA Feedlot Certificate of Compliance #: \_\_\_\_\_  
If Yes, are you engaged in a farming operation? Yes \_\_\_\_\_ No \_\_\_\_\_  
If No, is the Feedlot an enclosure for the purposes of custom feeding poultry or livestock?  
Yes \_\_\_\_\_ No \_\_\_\_\_. If Yes, a Conditional Use Permit is required.

Does proposed construction require a Septic Permit? Yes \_\_\_\_\_ No X  
Septic Permit # \_\_\_\_\_  
Certified Septic System Installer: \_\_\_\_\_ Estimated date of completion: \_\_\_\_\_

Conditional Use Permit Required: NA Variance Required: \_\_\_\_\_  
Planning Commission Action: NA Date: \_\_\_\_\_  
County Board Action: \_\_\_\_\_ Date: \_\_\_\_\_

**Setbacks (Feet):**

Building Setback from: Road Right-of-way NA Rear Yard Setback: \_\_\_\_\_  
Side Yard Setback: \_\_\_\_\_ Side Yard Setback: \_\_\_\_\_

I hereby certify that I am the owner/authorized agent of the owner of the above property and that all construction will conform with existing laws and local ordinances. All information I have provided above is true and correct and I understand that any false information will render this permit invalid.

Signature of Applicant Shirley Danner Date: 4-24-08

**PERMIT FOR CONSTRUCTION**

A building permit is hereby approved and issued for the above location and structure under existing regulations.

Zoning Administrator Ben Gilman Date: 4-24-08

Building Permit Fee: \$ 20<sup>00</sup> After-the-Fact Fee: \$ \_\_\_\_\_ New Address Fee \$ \_\_\_\_\_  
Paid: Yes  No \_\_\_\_\_ Date paid: 4-24 2008.

NOTE: Changes made after an approved permit is issued must be reapproved by the County before construction begins.

This permit is valid for a period of (1) year after date of issuance.

# GRID PLOT PLAN SKETCHING FORM

The purpose of this sketch is to graphically  
information included in your application

Check these as you draw them on the sketch:

SCALE: Each grid equals \_\_\_\_\_ feet

Building Permit # \_\_\_\_\_

Location of:

other building/structures

well/septic system

expansion area

indicate which way is North

building dimensions

location & length of lot lines

driveway & access roads (label)

Distance of new structure or addition to:

road centerlines

shoreline or rear yard

side property lines

SIGNATURE OF APPLICANT

A large grid area for sketching the plot plan, consisting of approximately 20 columns and 30 rows of squares.