

Well Management Section
625 North Robert Street
P.O. Box 64502
St. Paul, Minnesota 55164-0502
651-201-4600 or 800-383-9808
health.wells@state.mn.us
www.health.state.mn.us/wells



MDH Use Only
Date Received _____
Amount Received _____
Deposit Number _____
Application Number _____
\$3250 SCLHE _____
Date Approved _____

Submerged Closed Loop Heat Exchanger (SCLHE) Permit Application

- Please print or type the requested information.
- All fields must be completed. Incomplete applications cannot be processed and will be returned.
- Submit the completed application, the nonrefundable \$3,250 application fee, diagram, plans, and required signatures.
- Make check or money order payable to the Minnesota Department of Health or pay by credit card using the attached Credit Card Payment Information form.
- **Mail completed application and fee to address listed above or fax to 877-434-9853.**

Licensed Well Contractor

Certified Representative Name Certified Representative No.

Company Name Company License No.

Email or Mailing Address Where Approved Permit Should be Delivered Telephone No.

Property Owner

(If SCLHE Owner is different, provide SCLHE Owner name, address, and email address on an attached sheet.)

Property Owner Name Contact Person

Street Address City State ZIP Code

Property Owner Email Address Telephone Number

SCLHE Location

County Township Name Property Identification No.

Township No. Range No. Section No. Qtr

Street Address City State ZIP Code

SCLHE Water-Supply Well Construction Details

Number of Wells _____ Anticipated Depth to Bedrock (feet below surface) _____

Aquifer of well completion _____

Flowing artesian conditions expected? Yes No

Anticipated static water level (feet below surface) _____

Geology information: Submit a copy of the sealing record for any temporary boring (test boring) or construction record for any environmental well (test well) constructed at the SCLHE location.

Supply the following information for each well to be used in the system. If more than three wells are planned for use, provide additional well information on an attached sheet.

Well Information	Well 1	Well 2	Well 3
Existing or Proposed Well			
Minnesota Unique Well No.			
Well Construction Date			
Well Depth			
Hole Diameter			
Casing Diameter			
Casing Depth			
Grout Material			
Screen or Uncased Hole Completion			

Existing Well(s): Submit a copy of the well construction record(s) along with this form.

Proposed Well(s): If the well(s) are not yet constructed, write in estimated depths, sizes, and dates.

Attach Diagram with SCLHE Well Locations

The water-supply well(s) must be located and constructed in accordance with the provisions of the Minnesota Rules, chapter 4725, Wells and Borings.

Indicate well location(s) on an attached site plan. Show isolation distances from the wells to any contamination sources specified in Minnesota Rules, part 4725.4450 and distances from gas pipes, liquid propane tanks, electrical lines, buildings, and other wells.

SCLHE Specifications

Heat Transfer Fluid

The heat transfer fluid must be potable water. Additives must be ANSI/NSF-60 certified.

List all additives to be used and include the SDS and proposed maximum use concentration.

Product Name: _____

Product Name: _____

Product Name: _____

System Operating Pressure (psi) _____

Maximum design flow rate of submersible pump (gpm) _____

Attach Diagram with SCLHE Specifications

Schematic must indicate:

- Anticipated geology
- Bore hole depth and diameter
- Well casing depth(s) and diameter(s)
- Grout intervals
- Screen intervals (if applicable)
- Depth of heat exchanger
- Depth of seal(s) or packer(s) in wells
- Depth of submersible pump
- Pitless unit depth setting and diameter

Specifications must indicate:

- Well casing materials and standard
- Grout materials
- Screen diameter, slot size, and material (if applicable)
- Heat exchanger length, diameter, materials (with standards), and pressure rating
- Supply/return (in well) piping diameter, material (with standard), wall thickness (SDR or Sch.), and pressure rating
- Supply/return piping connections, including materials and standard
- Lateral piping diameter, material (with standard), wall thickness (SDR or Sch.), and pressure rating
- Type of seal(s) or packer(s) used
- Submersible pump make and model
- Pitless unit make and model

Attach SCLHE Operation Plans

1. Closed loop water monitoring plan. Include:

- Constituents to be monitored
- Sample frequency
- Reporting frequency

2. Leak detection and mitigation plan. Include:

- Design documents with locations of leak detection/mitigation devices
- Frequency of system monitoring
- Details of the trigger(s) that will cause an alert or shut off
- Details of the response to an alert or shut off
- Entities and roles in the system monitoring and response

3. System maintenance plan. Include:

- Type and frequency of anticipated system maintenance
- Description of any monitoring for needed maintenance
- Plans for containing/managing heat transfer fluids during equipment removal
- Plans for system re-installation

Certified Representative Signature

As a condition of this permit, I agree to construct this SCLHE under the provisions of Minnesota Statutes, chapter 103I, Minnesota Rules, chapter 4725, and the conditions provided in an approved permit.

Certified Representative Name (print)	Certified Representative Signature	Date
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Property Owner Signature

As a condition of this permit, I agree to operate and maintain this SCLHE under the provisions of Minnesota Statutes, chapter 103I, Minnesota Rules, chapter 4725, and the conditions provided in an approved permit, and to allow inspection by the commissioner of health and/or an MDH agent during regular work hours.

Property Owner Name (print)	Property Owner Signature	Date
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Information provided on this form is classified as public information under Minnesota Statutes, chapter 13.
To obtain this information in a different format call 651-201-4600.
Forms\Form SCLHE Construction Permit Application 05/25/2023R

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Credit Card Payment Information

Minnesota Unique Well No. _____

Minnesota Well and Boring Sealing No. **H** _____

Please complete and return this form if fee(s) payment is by credit card.

Note: If the *notification form* already has the preprinted credit card information box **DO NOT** use this form.

Effective May 1, 2023, credit card payments to the Minnesota Department of Health Well Management Section will automatically include a 2.15% service fee charged and collected by US Bank.

Fee Type

- Bored Geothermal Heat Exchanger Construction Permit
- Groundwater Thermal Exchange Permit
- Elevator Boring Permit
- Environmental Well Construction Notification
- Exploratory Boring Notification
- License and/or Rig Registration
- Maintenance Permit
- Submerged Closed Loop Heat Exchanger Permit
- Variance Application
- Well Construction Notification
- Well Sealing Notification

Credit Card Information

Credit Card Type: Visa MasterCard Discover Expiration Date _____

Total Amount to be Charged _____

2.15% of total service fee charged by US Bank

Cardholder Name _____

Credit Card Number _____ 3-Digit Security Code (Printed on back of card) _____

I understand Minnesota Department of Health's Tennessee Warning for credit card use is available by calling 651-201-4600 or on Well Management Section's website at:

Tennessee Warning (www.health.state.mn.us/communities/environment/water/wells/tw.html).

Authorized Signature _____ Date _____