SENATE
STATE OF MINNESOTA
NINETY-THIRD SESSION

S.F. No. 1958

(SENATE AUTHORS: MORRISON and Nelson)

DATE	D-PG	OFFICIAL STATUS
02/20/2023		Introduction and first reading Referred to Environment, Climate, and Legacy

A bill for an act

relating to wells and borings; adding a definition for a submerged closed-loop exchanger; specifying a water supply well includes a well containing a submerged closed-loop heat exchanger; specifying requirements for a submerged closed-loop heat exchanger; amending Minnesota Statutes 2022, section 103I.005, subdivisions 17a, 20a, by adding a subdivision; proposing coding for new law in Minnesota Statutes, chapter 103I.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. Minnesota Statutes 2022, section 103I.005, subdivision 17a, is amended to read:

Subd. 17a. ~~**Temporary boring**~~ **Submerged closed-loop heat exchanger.** ~~"Temporary boring"~~ "Submerged closed-loop heat exchanger" means ~~an excavation that is 15 feet or more in depth, is sealed within 72 hours of the time of construction, and is drilled, cored, washed, driven, dug, jetted, or otherwise constructed to~~ a heating and cooling system that:

(1) ~~conduct physical, chemical, or biological testing of groundwater, including groundwater quality monitoring~~ is installed in a water supply well;

(2) ~~monitor or measure physical, chemical, radiological, or biological parameters of earth materials or earth fluids, including hydraulic conductivity, bearing capacity, or resistance~~ utilizes the convective flow of groundwater as the primary medium of heat exchange;

(3) ~~measure groundwater levels, including use of a piezometer~~ contains potable water as the heat transfer fluid; and

(4) ~~determine groundwater flow direction or velocity~~ is operated using nonconsumptive recirculation.

A submerged closed-loop heat exchanger also includes submersible pumps, a heat exchanger device, piping, and other necessary appurtenances.

Sec. 2. Minnesota Statutes 2022, section 103I.005, is amended by adding a subdivision to read:

Subd. 17b. **Temporary boring.** "Temporary boring" means an excavation that is 15 feet or more in depth; is sealed within 72 hours of the time of construction; and is drilled, cored, washed, driven, dug, jetted, or otherwise constructed to:

(1) conduct physical, chemical, or biological testing of groundwater, including groundwater quality monitoring;

(2) monitor or measure physical, chemical, radiological, or biological parameters of earth materials or earth fluids, including hydraulic conductivity, bearing capacity, or resistance;

(3) measure groundwater levels, including use of a piezometer; and

(4) determine groundwater flow direction or velocity.

Sec. 3. Minnesota Statutes 2022, section 103I.005, subdivision 20a, is amended to read:

Subd. 20a. **Water supply well.** "Water supply well" means a well that is not a dewatering well or environmental well and includes wells used:

(1) for potable water supply;

(2) for irrigation;

(3) for agricultural, commercial, or industrial water supply;

(4) for heating or cooling; ~~and~~

(5) for containing a submerged closed-loop heat exchanger; and

(6) for testing water yield for irrigation, commercial or industrial uses, residential supply, or public water supply.

Sec. 4. **[103I.631] INSTALLATION OF A SUBMERGED CLOSED-LOOP HEAT EXCHANGER.**

Subdivision 1. **Installation.** Notwithstanding any other provision of law, the commissioner must allow the installation of a submerged closed-loop heat exchanger in a water supply well. A project may consist of more than one water supply well on a particular site.

Subd. 2. **Setbacks.** Water supply wells used only for the nonpotable purpose of providing heating and cooling using a submerged closed-loop heat exchanger are exempt from isolation distance requirements greater than ten feet.

Subd. 3. **Construction.** The screened interval of a water supply well constructed to contain a submerged closed-loop heat exchanger completed within a single aquifer may be designed and constructed using any combination of screen, casing, leader, riser, sump, or other piping combinations if the screen configuration does not interconnect aquifers.

Subd. 4. **Permits.** A submerged closed-loop heat exchanger is not subject to the permit requirements in this chapter.

Subd. 5. **Variances.** A variance is not required to install or operate a submerged closed-loop heat exchanger.