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State of Minnesota

HOUSE OF REPRESENTATIVES

NINETY-SECOND SESSION

H. F. No. 2108

03/10/2021 Authored by Long
The bill was read for the first time and referred to the Committee on Health Finance and Policy

1.1 A bill for an act
1.2 relating to wells and borings; adding a definition for closed loop heat exchangers;
1.3 specifying that a closed loop heat exchanger is an environmental well for purposes
1.4 of chapter 103I; amending Minnesota Statutes 2020, section 103I.005, subdivisions
1.5 8a, 11, by adding a subdivision.

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

1.7 Section 1. Minnesota Statutes 2020, section 103I.005, is amended by adding a subdivision
1.8 to read:

1.9 Subd. 2b. Closed-loop heat exchanger. "Closed-loop heat exchanger" means a heating
1.10 device consisting of a closed-loop piping system installed in an environmental well to
1.11 transfer heat to or from the aquifer with no discharge. A closed-loop heat exchanger may:

1.12 (1) be designed and constructed using any criteria or material approved for the
1.13 construction of water wells;

1.14 (2) contain biocide and anti-corrosion agents NSF-60 approved or USP-grade or
1.15 food-grade propylene glycol;

1.16 (3) have the wellbore designed with no rise, sump, or lead pipe limits as long as screens
1.17 are used within one aquifer;

1.18 (4) have removeable downhole equipment, including the heat exchanger pump and
1.19 piping; and

1.20 (5) be treated as a single system based on total tonnage consistent with current geothermal
1.21 permit fees.

2.1 Sec. 2. Minnesota Statutes 2020, section 103I.005, subdivision 8a, is amended to read:

2.2 Subd. 8a. **Environmental well.** "Environmental well" means an excavation 15 or more
2.3 feet in depth that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed
2.4 to:

2.5 (1) conduct physical, chemical, or biological testing of groundwater, and includes a
2.6 groundwater quality monitoring or sampling well;

2.7 (2) lower a groundwater level to control or remove contamination in groundwater, and
2.8 includes a remedial well and excludes horizontal trenches; ~~or~~

2.9 (3) hold a closed-loop heat exchanger; or

2.10 (4) monitor or measure physical, chemical, radiological, or biological parameters of the
2.11 earth and earth fluids, or for vapor recovery or venting systems. An environmental well
2.12 includes an excavation used to:

2.13 (i) measure groundwater levels, including a piezometer;

2.14 (ii) determine groundwater flow direction or velocity;

2.15 (iii) measure earth properties such as hydraulic conductivity, bearing capacity, or
2.16 resistance;

2.17 (iv) obtain samples of geologic materials for testing or classification; or

2.18 (v) remove or remediate pollution or contamination from groundwater or soil through
2.19 the use of a vent, vapor recovery system, or sparge point.

2.20 An environmental well does not include an exploratory boring.

2.21 Sec. 3. Minnesota Statutes 2020, section 103I.005, subdivision 11, is amended to read:

2.22 Subd. 11. **Groundwater thermal exchange device.** "Groundwater thermal exchange
2.23 device" means a heating or cooling device that depends on extraction and reinjection of
2.24 groundwater from an independent aquifer to operate, but does not include a closed-loop
2.25 heat exchanger.