

**Closed-loop geothermal system siting recommendations provided by DPH to DCP on 2/1/13 for consideration in draft DCP regulations for such systems:**

Closed-loop geothermal systems, excluding piping between the borehole, trench, or surface water and the building or structure, shall have the following minimum separation distances:

- 25 feet from sewage/wastewater septic tank, grease trap/interceptor tank, or pump chamber.
- 50 feet from sewage/wastewater leaching system; however, the minimum separating distance may be further reduced in accordance with special provisions in the Department of Public Health publication *Technical Standards for Subsurface Sewage Disposal Systems*.
- 50 feet from below ground tank containing fuel or other hazardous material.
- 10 feet from solid (non-perforated) sewer pipe, surface water or groundwater drainage structure/piping, water supply piping, fuel or utility piping.
- 10 feet from high water mark of any body of water; however, this does not apply to closed-loop geothermal surface water systems.
- 50 feet from water supply well with a withdrawal rate of 50 gal/min or less; however, the minimum separating distance shall be reduced to 25 feet if the water supply well has a withdrawal rate of less than 10 gal/min and is on the closed-loop geothermal system property.
- 200 feet from water supply well with a withdrawal rate greater than 50 gal/min.

Closed-loop geothermal piping between the borehole, trench, or surface water and the building or structure shall be located at least 25 feet from sources of pollution (fuel tanks, septic tanks, leaching systems, etc.) and water supply wells, however the minimum separating distance may be further reduced in accordance with special provisions in the Department of Public Health publication *Technical Standards for Subsurface Sewage Disposal Systems*.

Compliance with the minimum separating distances shall be based on horizontal measurements, except for non-vertical closed-loop geothermal bore holes which shall maintain the minimum separation distances when measured from any point along the borehole.

**Additional DPH comments relative to above recommended minimum separating distances:**

The above minimum separating distances are somewhat different than the distances cited in the 2007 DPH report to the General Assembly, 2007 DPH Circular Letters, and earlier draft DCP regulations. The following highlight the most significant changes:

Removed reference to DPH's *Technical Standards for Subsurface Sewage Disposal Systems* (Technical Standards) relative to tight piping & joints for sewage system and sewer piping, and to water-tight testing of septic tanks, grease interceptor tanks & pump chambers. The Technical Standards are not applicable to public sewer piping relative to closed loop geothermal systems, and water-tight testing of the above noted tanks in use is neither practical nor warranted.

Made the separating distances for private and public wells consistent, and increased distance from 25' to 50' for all wells <50 gpm, but provided a provision to reduce separating distance to 25' for <10 gpm wells that are on the same property as geothermal system. This would help to avoid potential impacts to water supply wells on adjoining properties.

Provided flexibility for further separation distance reductions to septic systems in accordance with future special provisions to be incorporated into the Technical Standards.

Added new items (water lines, fuel and utility lines) that previously weren't cited.