

DRAFT Exemption conditions for closed loop ground source heat pump activities in low-environmental risk settings with effect from [Date] [Month] [Year].

The following conditions apply to closed loop ground source heat pump activities, including closed loop ground source heating and cooling schemes.

1. The system must be closed loop only and have no discharge of pollutants other than transfer of heat to the environment.
2. The system must not cause pollution of surface water or groundwater
3. The system must not be either entirely or partly within a groundwater Source Protection Zone 1 or within 50 metres of a well, spring or borehole used for supply water for domestic or for food production purposes.
4. The system must not be within the following distance of a wetland designated as a Site of Special Scientific Interest, European site or Ramsar site:
 - 4.1 Not within 20m for a single domestic system (assuming 45kW as defined by the Micro-generation Certification Scheme (MCS))
 - 4.2 Not within 50m for a group of 4 or more houses or a single community building or
 - 4.3 Not within 250m for a factory or large office
5. The system must not be within 10m of a watercourse.
6. The installation of the system must not mobilise any contaminants potentially present in the subsurface to the extent that pollution of groundwater occurs.
7. The system must not be adjacent to a septic tank or cesspit, including the infiltration system.
8. All equipment installed in relation to the system must comply with the relevant design and manufacturing standards set down in the British Standard that is in force and with the standards issued by the Ground Source Heat Pump Association at the time of the coming into effect of these conditions [Date] [Month] [Year].
9. The operator must ensure the system is appropriately decommissioned when it ceases to be in operation so that there is no risk of pollutants or polluting matter entering groundwater.

For the purposes of these conditions, the following definitions apply:

Closed loop means “a system that is fully sealed and takes no water from the environment and discharges no water or fluids to the environment. Boreholes used for these systems are fully sealed and have no direct connection with any groundwater in the formation into which it is installed”

Relevant British Standards mean:

BSI, 2008 Refrigerating systems and heat pumps. Safety and environmental requirements. Installation site and personal protection.

BS EN 378-3:2008 BSI 2007. Heating systems in buildings - Design of heat pump heating systems. British Standards BS EN 15450:2007.

BSI, 2000. Water supply. Requirements for systems and components outside buildings. British Standards BS EN 805:2000.

BSI, 1999 + Amendment 2: 2010. 5. Code of practice for site investigations. BS5930:1999 + Amendment 2:2010

Standards issued by the Ground Source Heat Pump Association mean:

GROUND SOURCE HEAT PUMP ASSOCIATION 2016. Closed Loop Vertical Borehole: Design, Installation and Materials Standards

GROUND SOURCE HEAT PUMP ASSOCIATION 2016. Thermal Pile Borehole: Design, Installation and Materials Standards

GROUND SOURCE HEAT PUMP ASSOCIATION 2016. Shallow Ground Source: Design, Installation and Materials Standards

HSE, 1991. Protection of workers and the general public during the development of contaminated land. Health and Safety Executive guidance HSG 66 (1991)

IGSHPA, 2007: Closed-loop/geothermal heat pump systems: design and installation standards (most relevant to individual loops).