

**3745-34-51 Minimum criteria for siting class I hazardous waste injection wells.**

- (A) All class I hazardous waste injection wells shall be sited such that they inject into a formation that is beneath the lowermost formation containing, within one quarter mile of the well bore, an underground source of drinking water.
- (B) Upon a finding by the director, the siting of class I hazardous waste injection wells shall be limited to areas that are geologically suitable. The director shall determine geologic suitability based upon information submitted by the applicant including :
  - (1) An analysis of the structural and stratigraphic geology, the hydrogeology, and the seismicity of the region; and
  - (2) An analysis of the local geology and hydrogeology of the well site, including , at a minimum, detailed information regarding stratigraphy, structure and rock properties, aquifer hydrodynamics and mineral resources; and
  - (3) A determination that the geology of the area can be described confidently and that limits of waste fate and transport can be accurately predicted through the use of models.
- (C) Class I hazardous waste injection wells shall be sited such that:
  - (1) The injection zone has sufficient permeability, porosity, thickness and areal extent to prevent migration of fluids into USDWs.
  - (2) The confining zone:
    - (a) Is laterally continuous and free of transecting, transmissive faults or fractures over an area sufficient to prevent the movement of fluids into USDW; and
    - (b) Contains at least one formation of sufficient thickness and with lithologic and stress characteristics capable of preventing vertical propagation of fractures.
- (D) The owner or operator shall submit information to the director adequate to demonstrate that:
  - (1) The confining zone is separated from the base of the lowermost USDW by at least one sequence of permeable AND LESS PERMEABLE strata that will provide an added layer of protection for the USDW in the event of fluid movement in an unlocated bore hole or transmissive fault; or

- (2) Within the area of review, the piezometric surface of the fluid in the injection zone is less than the piezometric surface of the lowermost USDW, considering density effects, injection pressures and any significant pumping in the overlying USDW; or
- (3) There is no USDW present.

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Rule amplifies: RC Sections 6111.043, 6111.044, 6111.046, 6111.047 and 6111.049

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