



## Ohio Administrative Code

### Rule 3745-34-38 Operating, monitoring, and reporting requirements for class I wells.

Effective: December 16, 1991

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(A) Operating requirements. Operating requirements shall, at a minimum, include:

(1) Except during stimulation, injection pressure at the wellhead shall not exceed a maximum which shall be calculated so as to assure that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the injection zone. In no case shall injection pressure initiate fractures in the confining zone or cause the movement of injection or formation fluids into an underground source of drinking water.

(2) Injection between the outermost casing protecting underground sources of drinking water and the well bore is prohibited.

(3) Unless an alternative to a packer has been approved under paragraph (C) of rule 3745-34-37 of the Administrative Code, the annulus between the tubing and the long string of casings shall be filled with a fluid approved by the director, and a pressure, also approved by the director, shall be maintained on the annulus.

(B) Monitoring requirements. Monitoring requirements shall, at a minimum, include:

(1) The analysis of the injected fluids with sufficient frequency to yield representative data of their characteristics; and

(2) Installation and use of continuous recording devices to monitor injection pressure, flow rate and volume, and the pressure on the annulus between the tubing and the long string of casing; and

(3) A demonstration of mechanical integrity pursuant to rule 3745-34-34 of the Administrative Code every three years during the life of the well or more frequently, if public health, safety, or environmental circumstances so warrant; and



(4) Pressure testing of the entire casing length every three years during the life of the well or more frequently, if public health, safety, or environmental circumstances so warrant, instead of using as the standard a pressure of fifty per cent greater than the average pressure; and

(5) The type, number and location of wells within the area of review to be used to monitor any migration of fluids into and pressure in the underground sources of drinking water, the parameters to be measured and the frequency of monitoring.

(C) The director may require the owner or operator to submit, for approval, a monitoring program plan which meets the requirements set forth in rule 3745-34-57 of the Administrative Code.

(D) Reporting requirements. Reporting requirements shall, at a minimum, include:

(1) Monthly reports to the director on:

(a) The physical, chemical and other relevant characteristics of injection fluids; and

(b) Monthly average, maximum and minimum values for injection pressure, flow rate in gpm and volume, and annular pressure. For each minimum and maximum injection rate reported, list in the report the injection pressure and annulus pressure occurring during the time the well was operating at this minimum or maximum rate. Also include a listing of the date, duration and cause of any non-operating period for each well during the month; and

(c) The results of monitoring prescribed under paragraph (B)(5) of this rule.

(2) Reporting the results, with the first monthly report after the completion, of:

(a) Periodic tests of mechanical integrity; and

(b) Any other test of the injection well conducted by the permittee if required by the director; and

(c) Any well work over.



(3) Any procedures conducted at the injection well other than routine operational procedures.