

**15A NCAC 02C .0207 MECHANICAL INTEGRITY**

(a) An injection well has internal mechanical integrity, meaning there is no leak in the casing, tubing, or packer, as demonstrated by one of the following methods:

- (1) monitoring of the tubing-casing annulus pressure, following an initial pressure test, with sufficient frequency to be representative. This test shall be performed at the well head while maintaining an annulus pressure different from atmospheric pressure;
- (2) pressure testing with liquid or gas; or
- (3) any other method proposed by the permittee and approved by the Director as equally effective.

(b) An injection well has external mechanical integrity, meaning there is no fluid movement into groundwaters through vertical channels adjacent to the injection well bore, as determined by one of the following methods:

- (1) the results of a temperature or noise log;
- (2) grouting records plus predictive calculations demonstrating that the injection pressures will not exceed the strength of the grout; or
- (3) any other method proposed by the permittee and approved by the Director as equally effective.

(c) In conducting and evaluating the tests enumerated in this Section or other tests allowed by the Director, the owner or operator shall apply methods and standards generally accepted in the industry. When the well owner or operator reports the results of mechanical integrity tests, a description of the tests and the methods used shall be included.

(d) The Director may require additional or alternative tests if the results presented by the owner or operator under Paragraph (c) of this Rule do not demonstrate that an injection well has mechanical integrity.

(e) If an injection well fails to demonstrate mechanical integrity, the well owner or operator shall take corrective action as specified in Rule .0206 of this Section.

*History Note: Authority G.S. 87-87; 143-211; 143-215.1A; 143-215.3(a)(1); 143-215.3(c);  
Eff. August 1, 1982;  
Amended Eff. May 1, 2012; September 1, 1996; March 1, 1984;  
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