

§ 147.2104

(iii) In a quantity no less than 120% of the calculated volume necessary to cement off a zone; and/or

(4) Comply with other requirements which the Regional Administrator may specify in addition to or in lieu of the requirements set forth in paragraphs (b) (1) through (3) of this section as needed to protect USDWs.

[49 FR 45308, Nov. 15, 1984]

§ 147.2104 Requirements for all wells.

(a) The owner or operator converting an existing well to an injection well shall check the condition of the casing with one of the following logging tools;

- (1) A pipe analysis log; or
- (2) A caliper log.

(b) The owner or operator of a new injection well cased with plastic (PVC, ABS, or others) casings shall:

- (1) Not construct a well deeper than 500 feet;
- (2) Use cement and additives compatible with such casing material; and
- (3) Cement the annular space above the injection intermal from the bottom of the blank casing to the surface.

(c) The owner or operator of a newly drilled well shall install centralizers as directed by the Regional Administrator.

(d) The owner or operator shall as required by the Regional Administrator:

- (1) Protect USDWs by:
 - (i) Setting surface casing 50 feet below the lowermost USDW;
 - (ii) Cementing surface casing by recirculating the cement to the surface from a point 50 feet below the lowermost USDW; or
 - (iii) Isolating all USDWs by placing cement between the outermost casing and the well bore; and

(2) Isolate any injection zones by placing sufficient cement to fill the calculated space between the casing and the well bore to a point 250 feet above the injection zone; and

- (3) Use cement:
 - (i) Of sufficient quantity and quality to withstand the maximum operating pressure; and
 - (ii) Which is resistant to deterioration from formation and injection fluids; and

(iii) In a quantity no less than 120% of the calculated volume necessary to cement off a zone.

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(4) The Regional Administrator may approve alternate casing and cementing practices provided that the owner or operator demonstrates that such practices will adequately protect USDWs.

(e) *Area of review.* Notwithstanding the alternatives presented in §146.6 of this chapter, the area of review shall be a fixed radius as described in §146.6(b) of this chapter.

(f) The applicant must give separate notice of intent to apply for a permit to each owner of record of the land within one-quarter mile of the site. The addresses of those to whom notice is given and the description of how notice was given shall be submitted with the permit application. The notice shall include:

- (1) The name and address of applicant;
- (2) A brief description of the planned injection activities, including well location, name and depth of the injection zone, maximum injection pressure and volume, and fluid to be injected;
- (3) The EPA contact person; and
- (4) A statement that opportunity to comment will be announced after EPA prepares a draft permit.

This requirement may be waived by the Regional Administrator if he determines that individual notice to all land owners of record would be impractical.

[49 FR 45308, Nov. 15, 1984]

Subpart RR—Tennessee

§ 147.2150 State-administered program—Class I, II, III, IV, and V wells.

The UIC program for Class I, II, III, IV, and V wells in the State of Tennessee, except for those on any Indian lands, is the program administered by the Tennessee Department of Environment and Conservation, approved by EPA pursuant to section 1422 of the SDWA. Notice of this approval was published in the FEDERAL REGISTER on April 6, 2015; the effective date of this program is July 6, 2015. This program consists of the following elements, as submitted to EPA in the state's program application.

(a) *Incorporation by reference.* The requirements set forth in the Tennessee State statutes and regulations cited in