

**§ 147.305**

**40 CFR Ch. I (7-1-02 Edition)**

(ii) Submit data acceptable to the Regional Administrator which defines the fracture pressure of the formation in which injection is taking place. A single test may be submitted on behalf of two or more operators conducting operations in the same formation, if the Regional Administrator approves such submission. The data shall be submitted to the Regional Administrator within one year of the effective date of this program.

(b) *Casing and cementing.* Where the Regional Administrator determines that the owner or operator of an existing enhanced recovery or hydrocarbon storage well may not be in compliance with the requirements of §§144.28(e) and 146.22, the owner or operator shall comply with paragraphs (b) (1) through (4) of this section, when required by the Regional Administrator:

(1) Protect USDWs by:

(i) Cementing surface casing by recirculating the cement to the surface from a point 50 feet below the lowermost USDW; or

(ii) 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;

(ii) Which is resistant to deterioration from formation and injection fluids; and

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

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

**§ 147.305 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, and others) casings shall:

(1) Not construct a well deeper than 500 feet;

(2) Use cement and additives compatible with such casing material;

(3) Cement the annular space above the injection interval 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 base of 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;

(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.

(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 or tenant of the land within one-quarter mile of the site. The addresses of those to whom notice

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is given, and a description of how notice is given, shall be submitted with the permit application. The notice shall include:

- (1) 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) 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 when he determines that individual notice to all land owners and tenants would be impractical.

### Subpart H—Connecticut

#### § 147.350 State-administered program.

The UIC program for all classes of wells in the State of Connecticut, except those wells on Indian lands, is the program administered by the Connecticut Department of Environmental Protection approved by EPA pursuant to section 1422 of the SDWA. Notice of this approval was published in the FR on March 26, 1984 (49 FR 11179); the effective date of this program is March 26, 1984. 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 State statutes and regulations cited in this paragraph are hereby incorporated by reference and made part of the applicable UIC program under the SDWA for the State of Connecticut. This incorporation by reference was approved by the Director of the OFR in accordance with 5 U.S.C. 552(a) and CFR part 51. Copies may be obtained at the State of Connecticut, Department of Environmental Protection, State Office Building, 165 Capitol Avenue, Hartford, Connecticut, 06106. Copies may be inspected at the Environmental Protection Agency, Region I, John F. Kennedy Federal Building, room 2203, Boston, Massachusetts, 02203, or at the Office of the Federal Register, 800 North Capitol Street NW., suite 700, Washington, DC.

(1) Connecticut General Statutes Annotated, title 22a (Environmental Protection), chapter 439, sections 22a-1 through 22a-27 (1985 and Cumm. Supp. 1990);

(2) Connecticut General Statutes Annotated, Title 22a (Environmental Protection), Chapter 446K (1985 and Cumm. Supp. 1990).

(b) *Memorandum of Agreement.* The Memorandum of Agreement between EPA Region I and the Connecticut Department of Environmental Protection, signed by the EPA Regional Administrator on August 9, 1983.

(c) *Statement of legal authority.* (1) Statement from the Attorney General of the State of Connecticut, signed by the Attorney General on May 8, 1981;

(2) Addendum to the Statement from the Attorney General of the State of Connecticut, signed by the Attorney General on May 10, 1983.

(d) *Program Description.* The Program Description and any other materials submitted as part of the application or as supplements thereto.

[56 FR 9413, Mar. 6, 1991]

#### §§ 147.351-147.352 [Reserved]

#### § 147.353 EPA-administered program—Indian lands.

(a) *Contents.* The UIC program for all classes of wells on Indian lands in Connecticut is administered by EPA. This program consists of the UIC program requirements of 40 CFR parts 124, 144, 146, 148, and any additional requirements set forth in the remainder of this subpart. Injection well owners and operators, and EPA shall comply with these requirements.

(b) *Effective date.* The effective date of the UIC program for Indian lands in Connecticut is November 25, 1988.

[53 FR 43086, Oct. 25, 1988, as amended at 56 FR 9413, Mar. 6, 1991]

#### §§ 147.354-147.359 [Reserved]

### Subpart I—Delaware

#### § 147.400 State-administered program.

The UIC program for all classes of wells in the State of Delaware, except those wells on Indian lands, is the program administered by the Delaware Department of Natural Resources and