

and Gas Conservation Commission, signed by the EPA Regional Administrator on March 3, 1984 and amended on August 30, 1989.

(c) *Statement of legal authority.* (1) Letter from Colorado Assistant Attorney General to the Acting Regional Counsel, EPA Region VIII, "Re: Class II Well Underground Injection Control Program of Colorado Oil and Gas Conservation Commission", March 15, 1983;

(2) Letter from Colorado Assistant Attorney General to the Acting Regional Counsel, EPA Region VIII, "Re: Class II Well Injection Control Program of Colorado Oil and Gas Conservation Commission", April 29, 1983;

(3) Letter from Colorado Assistant Attorney General to the Acting Regional Counsel, EPA Region VIII, "Re: Class II Underground Injection Control Program of Colorado Oil and Gas Conservation Commission, interpretation of C.R.S. 1973, 34-60-110", July 11, 1983;

(4) Letter from Colorado Assistant Attorney General to the Acting Regional Counsel, EPA Region VIII, "Re: Class II Well Underground Injection Control Program of Colorado Oil and Gas Conservation Commission", February 17, 1984;

(5) Memorandum from Colorado Assistant Attorney General to the Acting Regional Counsel, EPA Region VIII, "Re: Authority to set and enforce maximum pressure for injecting fluids into Class II wells with existing permits", March 7, 1984.

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

(1) Application and accompanying materials for approval of Colorado's UIC program for Class II wells submitted by the Director of the Colorado Oil and Gas Conservation Commission to the Regional Administrator, May 3, 1983;

(2) Supplemental amendment to Colorado's application for primacy for the UIC program for Class II wells describing the process through which the State will ensure enforceable limits for maximum injection pressure, describing the Commission's plan of administration for Class II wells, and describing Mechanical Integrity Test procedures for Class II wells, March 7, 1984;

(3) Official correspondence concerning various program issues between the Colorado Oil and Gas Conservation Commission and EPA Region VIII, for the period from March 7, 1984 to May 8, 1989.

[56 FR 9412, Mar. 6, 1991]

§ 147.301 EPA-administered program—Class I, III, IV, V wells and Indian lands.

(a) *Contents.* The UIC program for Class I, III, IV and V wells on all lands in Colorado, including Indian lands, and for Class II wells on Indian lands, is administered by EPA. The program for all EPA-administered wells in Colorado other than Class II wells on the lands of the Ute Mountain Ute 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 dates.* The effective date for the UIC program on all lands in Colorado, including Indian lands, except for Class II wells on lands of the Ute Mountain Ute, is June 25, 1984.

[52 FR 17681, May 11, 1987, as amended at 56 FR 9413, Mar. 6, 1991]

§ 147.302 Aquifer exemptions.

(a) This section identifies any aquifers of their portions exempted in accordance with §§ 144.7(b) and 146.4 of this chapter at the time of program promulgation. EPA may in the future exempt other aquifers or portions according to applicable procedures without codifying such exemptions in this section. An updated list of exemptions will be maintained in the Regional office.

(b) For all aquifers into which existing Class II wells are injecting, those portions within a ¼ mile radius of the well are exempted for the purpose of Class II injection activities only.

§ 147.303 Existing Class I, II (except enhanced recovery and hydrocarbon storage) and III wells authorized by rule.

Maximum injection pressure. The owner or operator shall limit injection pressure to the lesser of:

§ 147.304

(a) A value which will not exceed the operating requirements of §144.28(f)(3)(i) or (ii) as applicable; or

(b) A value for wellhead pressure calculated by using the following formula;

$$P_m = (0.733 - 0.433 S_g) d$$

where:

P_m =injection pressure at the wellhead in pounds per square inch

S_g =specific gravity of injected fluid (unitless)

d =injection depth in feet.

§ 147.304 Existing Class II enhanced recovery and hydrocarbon storage wells authorized by rule.

(a) *Maximum injection pressure.* (1) To meet the operating requirements of § 144.28(f)(3)(ii) (A) and (B) of this chapter, the owner or operator:

(i) Shall use an injection pressure no greater than the pressure established by the Regional Administrator for the field or formation in which the well is located. The Regional Administrator shall establish such a maximum pressure after notice, opportunity for comment, and opportunity for a public hearing, according to the provisions of part 124, subpart A of this chapter, and will inform owners and operators in writing of the applicable maximum pressure; or

(ii) May inject at pressures greater than those specified in paragraph (a)(1)(i) of this section for the field or formation in which he is operating provided he submits a request in writing to the Regional Administrator and demonstrates to the satisfaction of the Regional Administrator that such injection pressure will not violate the requirements of §144.28(f)(3)(ii) (A) and (B). The Regional Administrator may grant such a request after notice, opportunity for comment, and opportunity for a public hearing, according to the provisions of part 124, subpart A of this chapter.

(2) Prior to such time as the Regional Administrator establishes rules for maximum injection pressures based on data provided pursuant to paragraph (a)(2)(ii) of this section the owner or operator shall:

(i) Limit injection pressure to a value which will not exceed the operating requirements of § 144.28(f)(3)(ii); and

(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.