

§ 147.3108

40 CFR Ch. I (7-1-04 Edition)

no more than 90 days prior to the commencement of monitoring.

§ 147.3108 Plugging Class I, II, and III wells.

In addition to the requirements of § 146.10 of this chapter, owners and operators shall comply with the following when plugging a well:

(a) For Class I and III wells:

(1) The well shall be filled with mud from the bottom of the well to a point one hundred (100) feet below the top of the highest disposal or injection zone and then with a cement plug from there to at least one hundred (100) feet above the top of the disposal or injection zone.

(2) A cement plug shall also be set from a point at least fifty (50) feet below the shoe of the surface casing to a point at least five (5) feet above the top of the lowest USDW.

(3) A final cement plug shall extend from a point at least thirty feet below the ground surface to a point five (5) feet below the ground surface.

(4) All intervals between plugs shall be filled with mud.

(5) The top plug shall clearly show by permanent markings inscribed in the cement or on a steel plate embedded in the cement the well permit number and date of plugging.

(b) For Class II wells:

(1) The well shall be kept full of mud as casing is removed. No surface casing shall be removed without written approval from the Director.

(2) If surface casing is adequately set and cemented through all USDWs (set to at least 50 feet below the base of the USDW), a plug shall be set at least 50 feet below the shoe of the casing and extending at least 50 feet above the shoe of the casing; or

(3) If the surface casing and cementing is inadequate, the well bore shall be filled with cement from a point at least 50 feet below the base of the USDW to a point at least 50 feet above the shoe of the surface casing, and any additional plugs as required by the Director.

(4) In all cases, the top 20 feet of the well bore below 3 feet of ground surface shall be filled with cement. Surface casing shall be cut off 3 feet below ground surface and covered with a se-

cure steel cap on top of the surface pipe. The remaining 3 feet shall be filled with dirt.

(5) Except as provided in sub-paragraph (b)(6) of this section, each producing or receiving formation shall be sealed off with at least a 50-foot cement plug placed at the base of the formation and at least a 50-foot cement plug placed at the top of the formation.

(6) The requirement in sub-paragraph (b)(5) of this section does not apply if the producing/receiving formation is already sealed off from the well bore with adequate casing and cementing behind casing, and casing is not to be removed, or the only openings from the producing/receiving formation into the well bore are perforations in the casing, and the annulus between the casing and the outer walls of the well is filled with cement for a distance of 50 feet above the top of the formation. When such conditions exist, a bridge plug capped with at least 10 feet of cement set at the top of the producing formation may be used.

(7) When specified by the Director, any uncased hole below the shoe of any casing to be left in the well shall be filled with cement to a depth of at least 50 feet below the casing shoe, or the bottom of the hole, and the casing above the shoe shall be filled with cement to at least 50 feet above the shoe of the casing. If the well has a screen or liner which is not to be removed, the well bore shall be filled with cement from the base of the screen or liner to at least 50 feet above the top of the screen or liner.

(8) All intervals between cement plugs in the well bore must be filled with mud.

(c) For the purposes of this section mud shall be defined as: mud of not less than thirty-six (36) viscosity (API Full Funnel Method) and a weight of not less than nine (9) pounds per gallon.

§ 147.3109 Timing of mechanical integrity test.

The demonstrations of mechanical integrity required by § 146.14(b)(2) of this chapter prior to approval for the operation of a Class I well shall, for an existing well, be conducted no more than 90 days prior to application for the permit and the results included in

the permit application. The owner or operator shall notify the Director at least seven days in advance of the time and date of the test so that EPA observers may be present.

PART 148—HAZARDOUS WASTE INJECTION RESTRICTIONS

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AUTHORITY: Secs. 3004, Resource Conservation and Recovery Act, 42 U.S.C. 6901 *et seq.*

SOURCE: 53 FR 28154, July 26, 1988, unless otherwise noted.

Subpart A—General

§ 148.1 Purpose, scope and applicability.

(a) This part identifies wastes that are restricted from disposal into Class I wells and defines those circumstances

under which a waste, otherwise prohibited from injection, may be injected.

(b) The requirements of this part apply to owners or operators of Class I hazardous waste injection wells used to inject hazardous waste.

(c) Wastes otherwise prohibited from injection may continue to be injected:

(1) If an extension from the effective date of a prohibition has been granted pursuant to § 148.4 with respect to such wastes; or

(2) If an exemption from a prohibition has been granted in response to a petition filed under § 148.20 to allow injection of restricted wastes with respect to those wastes and wells covered by the exemption; or

(3) If the waste is generated by a conditionally exempt small quantity generator, as defined in § 261.5; or

(d) Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited under this part, or part 268 of this chapter, are not prohibited if the wastes:

(1) Are disposed into a nonhazardous or hazardous injection well as defined under 40 CFR § 146.6(a); and

(2) Do not exhibit any prohibited characteristic of hazardous waste identified in 40 CFR part 261, subpart C at the point of injection.

[53 FR 28154, July 26, 1988, as amended at 55 FR 22683, June 1, 1990; 57 FR 8088, Mar. 6, 1992; 57 FR 31763, July 20, 1992; 60 FR 33932, June 29, 1995; 61 FR 15596, Apr. 8, 1996; 61 FR 33682, June 28, 1996]

§ 148.2 Definitions.

Injection interval means that part of the injection zone in which the well is screened, or in which the waste is otherwise directly emplaced.

Transmissive fault or fracture is a fault or fracture that has sufficient permeability and vertical extent to allow fluids to move between formations.

§ 148.3 Dilution prohibited as a substitute for treatment.

The prohibition of § 268.3 shall apply to owners or operators of Class I hazardous waste injection wells.