§ 146.92 Injection well plugging.

(a) Prior to the well plugging, the owner or operator must flush each
Class VI injection well with a buffer fluid, determine bottomhole reservoir
pressure, and perform a final external mechanical integrity test.

(b) Well plugging plan. The owner or
operator of a Class VI well must pre-
pare, maintain, and comply with a plan
that is acceptable to the Director. The
requirement to maintain and imple-
ment an approved plan is directly en-
forceable regardless of whether the re-
quirement is a condition of the permit.
The well plugging plan must be sub-
mitted as part of the permit applica-
tion and must include the following in-
formation:

(1) Appropriate tests or measures for
determining bottomhole reservoir pres-
sure;

(2) Appropriate testing methods to
ensure external mechanical integrity
as specified in §146.89;

(3) The type and number of plugs to
be used;

(4) The placement of each plug, in-
cluding the elevation of the top and
bottom of each plug;

(5) The type, grade, and quantity of
material to be used in plugging. The
material must be compatible with the
carbon dioxide stream; and

(6) The method of placement of the
plugs.

(c) Notice of intent to plug. The owner
or operator must notify the Director in
writing pursuant to §146.91(e), at least
60 days before plugging of a well. At
this time, if any changes have been
made to the original well plugging
§ 146.93 Post-injection site care and site closure.

(a) The owner or operator of a Class VI well must prepare, maintain, and comply with a plan for post-injection site care and site closure that meets the requirements of paragraph (a)(2) of this section and is acceptable to the Director. The requirement to maintain and implement an approved plan is directly enforceable regardless of whether the requirement is a condition of the permit.

(1) The owner or operator must submit the post-injection site care and site closure plan as a part of the permit application to be approved by the Director.

(2) The post-injection site care and site closure plan must include the following information:

(i) The pressure differential between pre-injection and predicted post-injection pressures in the injection zone(s);

(ii) The predicted position of the carbon dioxide plume and associated pressure front at site closure as demonstrated in the area of review evaluation required under §146.84(c)(1);

(iii) A description of post-injection monitoring location, methods, and proposed frequency;

(iv) A proposed schedule for submitting post-injection site care monitoring results to the Director pursuant to §146.91(e); and,

(v) The duration of the post-injection site care timeframe and, if approved by the Director, the demonstration of the alternative post-injection site care timeframe that ensures non-endangerment of USDWs.

(3) Upon cessation of injection, owners or operators of Class VI wells must either submit an amended post-injection site care and site closure plan or demonstrate to the Director through monitoring data and modeling results that no amendment to the plan is needed. Any amendments to the post-injection site care and site closure plan must be approved by the Director, be incorporated into the permit, and are subject to the permit modification requirements at §144.39 or §144.41 of this chapter, as appropriate.

(4) At any time during the life of the geologic sequestration project, the owner or operator may modify and re-submit the post-injection site care and site closure plan for the Director’s approval within 30 days of such change.

(b) The owner or operator shall monitor the site following the cessation of injection to show the position of the carbon dioxide plume and pressure front and demonstrate that USDWs are not being endangered.

(1) Following the cessation of injection, the owner or operator shall continue to conduct monitoring as specified in the Director-approved post-injection site care and site closure plan for at least 50 years or for the duration of the alternative timeframe approved by the Director pursuant to requirements in paragraph (c) of this section, unless he/she makes a demonstration under (b)(2) of this section. The monitoring must continue until the geologic sequestration project no longer poses an endangerment to USDWs and the demonstration under (b)(2) of this section is submitted and approved by the Director.

(2) If the owner or operator can demonstrate to the satisfaction of the Director before 50 years or prior to the end of the approved alternative timeframe based on monitoring and other site-specific data, that the geologic sequestration project no longer poses an endangerment to USDWs, the Director may approve an amendment to the post-injection site care and site closure plan.

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