**Section 730.167 Operating Requirements**

a) Except during stimulation, the owner or operator must assure that injection pressure at the wellhead does not exceed a maximum that must be calculated so as to assure that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the injection zone. The owner or operator must assure that the injection pressure does not initiate fractures or propagate existing fractures in the confining zone, nor cause the movement of injection or formation fluids into a USDW.

b) Injection between the outermost casing protecting USDWs and the well bore is prohibited.

c) The owner or operator must maintain an annulus pressure that exceeds the operating injection pressure, unless the Agency determines in writing that such a requirement might harm the integrity of the well. The fluid in the annulus must be noncorrosive, or must contain a corrosion inhibitor.

d) The owner or operator must maintain mechanical integrity of the injection well at all times.

e) Permit requirements for owners or operators of hazardous waste injection wells that inject wastes that have the potential to react with the injection formation to generate gases must include the following:

1) Conditions limiting the temperature, pH, or acidity of the injected waste; and

2) Procedures necessary to assure that pressure imbalances that might cause a backflow or blowout do not occur.

f) The owner or operator must install and use continuous recording devices to monitor each of the following: the injection pressure; the flow rate, volume, and temperature of injected fluids; and the pressure on the annulus between the tubing and the long string casing, and must install and use either of the following:

1) Automatic alarm and automatic shut-off systems, designed to sound and shut-in the well when pressures and flow rates or other parameters specified by permit condition exceed a range or gradient specified in the permit; or

2) Automatic alarms, designed to sound when the pressures and flow rates or other parameters exceed a rate or gradient specified in the permit, in cases where the owner or operator certifies that a trained operator will be on-site at all times when the well is operating.

g) If an automatic alarm or shutdown is triggered, the owner or operator must immediately investigate and identify the cause of the alarm or shutoff without undue delay. If, upon such investigation, the well appears to be lacking mechanical integrity, or if monitoring required pursuant to subsection (f) otherwise indicates that the well may be lacking mechanical integrity, the owner or operator must undertake all of the following actions:

1) It must stop injecting waste fluids unless authorized by permit condition to continue or resume injection;

2) It must take all necessary steps to determine the presence or absence of a leak; and

3) It must notify the Agency within 24 hours after the alarm or shutdown.

h) If a loss of mechanical integrity is discovered pursuant to subsection (g) or during periodic mechanical integrity testing, the owner or operator must undertake all of the following actions:

1) It must immediately cease injection of waste fluids;

2) It must take all steps reasonably necessary to determine whether there may have been a release of hazardous wastes or hazardous waste constituents into any unauthorized zone;

3) It must notify the Agency within 24 hours after loss of mechanical integrity is discovered;

4) It must notify the Agency when injection can be expected to resume; and

5) It must restore and demonstrate mechanical integrity pursuant to Section 730.108 prior to resuming injection of waste fluids.

i) Whenever the owner or operator obtains evidence that there may have been a release of injected wastes into an unauthorized zone, the following must occur:

1) The owner or operator must immediately cease injection of waste fluids, and undertake all of the following actions:

A) It must notify the Agency within 24 hours of obtaining such evidence;

B) It must take all necessary steps to identify and characterize the extent of any release;

C) It must comply with any remediation plan specified by permit condition;

D) It must implement any remediation plan specified by permit condition; and

E) Where such release is into a USDW currently serving as a water supply, it must place a notice in a newspaper of general circulation.

2) The Agency must permit the operator to resume injection prior to completing cleanup action if the owner or operator demonstrates that the injection operation will not endanger USDWs.

j) The owner or operator must notify the Agency and obtain a permit modification prior to conducting any well workover.

BOARD NOTE: Derived from 40 CFR 146.67 (2017).

(Source: Amended at 42 Ill. Reg. 24145, effective November 19, 2018)