**Section 920.120 Abandoned Wells**

a) Abandonment of Wells

1) The owner of a water well, boring, or monitoring well shall assure that a well is sealed within 30 days after it is abandoned and when the well is no longer used to supply water or is in such a state of disrepair that the well or boring has the potential for transmitting contaminants into an aquifer or otherwise threatens the public health or safety. The Department wills grant an extension of this time if the owner submits a written request to the Department indicating the reasons for the request and an estimate of time in which the well will be either sealed or reused. For an extension to be granted, the owner shall assure the Department that applicable protective measures will be taken and that the methods and materials will be in compliance with the Act and this Part. Applicable protective measures may include ensuring that sources of contamination are down grade from the water source, ensuring isolation of the potential source of contamination so as to prevent a route of contamination of the groundwater, or isolating the potential source of contamination to prevent accidental introduction of contaminants into groundwater.

2) Water wells shall be sealed by a licensed water well driller pursuant to the Water Well and Pump Installation Contractor's License Act. An individual who is not licensed may seal a well if all of the following conditions exist:

A) The well is located on land that is owned or leased by the individual;

B) The land is used by the individual for farming purposes or as the individual's place of abode; and

C) A request is made to the Department or local health department prior to the commencement of sealing indicating how the water well is to be sealed and the materials to be used. The Department or local health department will grant approval when requested prior to the commencement of sealing if the methods and materials are in compliance with this Section.

b) Sealing Requirements. Where geologic data does not exist for a particular abandoned drilled water well, the water well shall be sealed, from the bottom up to where the well casing is removed, with neat cement grout or any bentonite product manufactured for water well sealing. Water wells, borings or monitoring wells that are abandoned shall be disinfected by introducing a sufficient amount of chlorine to produce 100 parts per million of chlorine in the water in the well and shall be sealed by placing the sealing materials from the bottom of the well to the surface by methods that will avoid segregation or dilution of material, in accordance with the following requirements:

1) Non-creviced, Consolidated Formations. Wells extending into non-creviced sandstone, or other water-bearing consolidated formations shall be sealed by filling the well with disinfected clean pea gravel or limestone chips to within 10 feet below the top of the water-bearing formation or to within 10 feet of the bottom of the casing, whichever is less. Neat cement grout or any bentonite product manufactured for water well sealing shall be placed for a minimum of 20 feet above this point. The upper part of the well to where the well casing is removed shall be sealed by neat cement grout or any bentonite product manufactured for water well sealing. Concrete or cement may be used for sealing if the upper part of the well is dry. (See Illustration J.)

2) Creviced Formations. Wells extended into creviced formations shall be sealed by filling with disinfected clean pea gravel or limestone chips to within 10 feet below the top of the water-bearing formation or to within 10 feet below the bottom of the casing, whichever is less. Neat cement grout or any bentonite product manufactured for water well sealing shall be placed for a minimum of 20 feet above this point. The upper part of the well to where the well casing is removed shall be sealed by neat cement grout or any bentonite product manufactured for water well sealing. Concrete or cement may be used for sealing if the upper part of the well is dry. If the earth cover is less than 30 feet, the hole shall be grouted from 10 feet below the creviced formation to where the well casing is removed. (See Illustration J.)

3) Unconsolidated Formations. If the water-bearing formation consists of coarse gravel and producing wells are located nearby, the well shall be sealed by filling with disinfected clean pea gravel or limestone chips to 10 feet below the top of water-bearing formation. Neat cement grout or any bentonite product manufactured for water well sealing shall be placed for a minimum of 20 feet above this point. The upper part of the well to where the well casing is removed shall be sealed by neat cement grout or any bentonite product manufactured for water well sealing. Concrete or cement may be used for sealing if the upper part of the well is dry. Abandoned dug and bored wells shall be sealed by using one of the following methods:

A) Filling with disinfected clean pea gravel or limestone chips to within 20 feet below the top of the casing. The upper part of the well to where the well casing is removed shall be sealed for a minimum of 20 feet by filling with neat cement grout, any bentonite product manufactured for water well sealing, or impervious material such as clay. Concrete or cement may be used for sealing if the upper part of the well is dry;

B) Placing a one foot layer of any bentonite product manufactured for water well sealing at the bottom of the well, followed by alternating layers of agricultural limestone (limestone fines) and any bentonite product manufactured for water well sealing. The alternating layers of agricultural lime shall be 5 to 7 feet thick and the alternating layers of any bentonite product manufactured for water well sealing shall be 6 inches thick. The uppermost or top layer shall be agricultural lime; or

C) Completely filling with concrete, cement grout or impervious material such as clay. (See Illustration K.)

4) More than One Water-Bearing Formation. If wells extend into more than one water-bearing formation, each water-bearing formation shall be sealed independently in the manner described in this Section. Neat cement grout or any bentonite product manufactured for water well sealing shall be placed a minimum of 10 feet above and below at all intermittent water-bearing formations except artesian wells and artesian formations. Disinfected clean pea gravel or limestone chips shall be placed in each water-bearing formation between plugs. When the lower formation has an upflow of water into the upper formation, a pressure seal is required to shut off the upflow while a neat cement plug at least 50 feet in length is pumped in place and allowed to set. The upper part of the well to where the well casing is removed shall be sealed with neat cement grout or any bentonite product manufactured for water well sealing. Concrete or cement may be used for sealing if the upper part of the well is dry. (See Illustration L.)

5) Artesian Wells. A cement retainer shall be used with pressure grouting equipment used to place cement grout. Neat cement grout, containing bentonite from 2% to 6% by dry weight, shall be placed for a minimum of 10 feet below and 10 feet above the water bearing formation. The upper part of the well to where the well casing is removed shall be filled with neat cement grout or any bentonite product manufactured for water well sealing. Concrete or cement may be used for sealing if the upper part of the well is dry.

6) Buried Slab Bored Wells. Wells shall be sealed by filling with disinfected clean pea gravel or limestone chips to within 1 foot below the buried slab. The upper part of the well to where the casing is removed shall be sealed with neat cement or any bentonite product manufactured for water well sealing.

7) In lieu of filling the well with disinfected clean pea gravel or limestone chips as required in subsections (b)(1) through (6), wells may be sealed by grouting from the bottom up by using neat cement grout or any bentonite product manufactured for water well sealing. This material shall be applied the full depth of the well and shall terminate within 2 feet of the ground surface. Concrete grout may be used in the upper part of the well if the upper part of the well is dry.

c) Non-Producing Well. If a water well is drilled and a water-bearing formation is not located, the water well driller shall fill the water well with clay, or neat cement containing bentonite or similar materials from 2% to 6% by weight, or pure bentonite in any form, not more than 10 calendar days after the well has been drilled. If a water well is drilled and a water-bearing formation is located, but the yield from the formation is not sufficient, or if the water well is to be sealed for any other reason, the water well shall be sealed in accordance with all provisions of this Part regulating the sealing of water wells.

d) The well casing or liner shall be removed to at least 2 feet below final grade, except where the well terminates with a concrete slab that is part of a building floor. If the well terminates in a slab that is part of a building floor, the sealing material shall be placed flush with the floor. The pump and drop pipe shall be removed.

e) Notification

1) The Department, approved local health department, or approved unit of local government shall be notified by telephone or in writing at least 48 hours prior to the commencement of any work to seal a water well or monitoring well. Preparation of the abandoned well, such as pulling the pumping unit, may be completed prior to notification.

2) When a water, boring or monitoring well is sealed, the individual performing the sealing shall submit a sealing form to the Department or approved local health department not more than 30 days after the well is sealed. The following information shall be submitted on a form provided by the Department:

A) The date that water, boring or monitoring well was drilled;

B) Depth and diameter of the water, boring or monitoring well;

C) Location of the water, boring or monitoring well;

D) Type of sealing method used;

E) Original water well permit number if available;

F) Date that the water, boring or monitoring well was sealed;

G) Type of water well (bored, dug, driven or drilled);

H) Whether the formation is clear of obstructions;

I) Casing record (explanation of the required removal); and

J) Water well driller's license number and name.

(Source: Amended at 37 Ill. Reg. 19676, effective November 25, 2013)