



Ohio Administrative Code Rule 1501:9-11-08 Plugging with cement.

Effective: August 10, 2020

(A) Unless otherwise provided in the terms or conditions of the plugging permit, this rule applies to all of the following wells:

- (1) A well drilled with rotary tools;
- (2) A Class II brine injection well regulated under Chapter 1509. of the Revised Code and Chapter 1501:9-3 of the Administrative Code;
- (3) An enhanced recovery well regulated under Chapter 1509. of the Revised Code and Chapter 1501:9-5 of the Administrative Code;
- (4) A Class III solution mining well regulated under Chapter 1501:9-7 of the Administrative Code;
- (5) A well associated with underground storage of natural gas; and
- (6) A well drilled to extract natural or artificial brine, or oil field waters.

(B) A person shall place plugs in a well listed under paragraph (A) of this rule across all of the following intervals:

- (1) When placing the bottom plug in a well drilled horizontally, the person needs to place a mechanical bridge plug rated at a pressure greater than the determined reservoir pressure at the time of plugging. The mechanical bridge plug needs to be set above the last perforation and below the last known producing zone with competent cement behind the production casing as determined by a cement evaluation tool if the annular space behind the production casing has a sustained pressure that is below the maximum allowable annular pressure as provided in rule 1501:9-01-08 of the Administrative Code, unless otherwise approved in writing by the chief. Prior to emplacing cement on top of the mechanical bridge plug, the hole has to be loaded and the bridge plug hydrostatically



tested at a surface pressure of at least five hundred psi for a period of fifteen minutes with no more than a ten-per cent deviation in pressure. If the hydrostatic test on the mechanical bridge plug fails, the person has to set a new mechanical bridge plug, unless otherwise approved in writing by the chief. After the mechanical bridge plug has been set and passed testing, the appropriate amount of cement for the interval to be plugged shall be placed on top of the mechanical bridge plug, as specified in the approved plugging plan.

(2) When placing the bottom plug in a vertical or directional wellbore, the person has to place cement from the bottom of the lowest interval tested or produced to a minimum of four hundred feet above the top of the lowest interval tested or produced;

(3) Unless exceptions have been granted by the chief in writing, from a minimum of fifty feet below the base to a minimum of one hundred feet above the top of each reservoir rock to within one hundred fifty feet of the bottom of the surface casing. The reservoir rock is identified by reviewing records for all wells located within a one thousand foot radius area of review around the well to be plugged.

(4) From a minimum of two hundred feet below the top of the Big Lime to the top of the Big Lime, when plugging a well east of the updip pinch-out of the Silurian Clinton sandstone;

(5) From a minimum of one hundred fifty feet below to a minimum of one hundred feet above the base of the surface casing;

(6) If the surface casing of a cable tool well has been removed and results in a USDW being unprotected, a cement plug has to be placed from a minimum of fifty feet below the base of the underground source of drinking water to thirty inches below grade level;

(7) Within the permitted area of an underground mine, a mechanical bridge plug shall be placed in the wellbore a minimum of two hundred feet below the mineable coal seam and the wellbore shall be filled with cement from the top of the mechanical bridge plug to within a minimum of thirty inches of the grade level. The person authorized to plug a well and the coal owner shall make reasonable efforts to coordinate plugging to minimize any potential adverse effect to the mining operation and/or future re-plugging of the well;



(8) From a minimum of one hundred feet below the grade level to thirty inches below grade level. The hole must be left open for the chief or chiefs representatives to review for at least three business days.

(C) For a Class III solution mining well regulated under Chapter 1509. of the Revised Code and under Chapter 1501:9-7 of the Administrative Code, a person has to place a mechanical bridge plug inside the cemented production casing as close to the base of the casing as possible. Prior to placing cement on top of the mechanical bridge plug, the person shall hydrostatically test the mechanical bridge plug at five hundred psi for at least fifteen minutes with no more than a five per cent decline. After a successful test, the person has to place at least two hundred feet of Class A cement on top of the mechanical bridge plug. After the cement reaches a minimum compressive strength of five hundred psi, the person has to fill the production casing to surface with Class A cement.

(D) If a thief zone is anticipated, the person has to develop a plan to ensure proper placement of plugs and obtain approval in writing from the chief.

(E) A person shall establish and sustain static conditions at the surface prior to emplacing a cement plug. The chief may grant an exception to the requirement of circulation when plugging wells with hydrogen sulfide if circulation of the well could jeopardize worker and/or public safety.

(F) No person may pump cement into a well if static conditions do not exist. No person may pump cement into a well that is flowing oil, gas, brine, or freshwater to the surface.

(G) If during the plugging operation a thief zone is present, a person may:

(1) Place a mechanical bridge plug in the well above the thief zone to provide a base on which to place a cement plug not less than two hundred feet in length above such a zone.

(2) Pump or place any material, including lost circulation materials, approved by the chief to plug off the thief zone. A person shall place a cement plug, not less than two hundred feet in length above or across the thief zone and may mix additional lost circulation materials into the cement slurry, if necessary.



(H) During plugging, the person has to make a good faith effort to recover all casing, other than conductor casing and drive pipe, which is not cemented.

(I) If it is determined by the chief that wellbore conditions render compliance with the approved plugging plan required under paragraph (E) of rule 1501:9-11-02 of the Administrative Code impossible or impractical or render any requirements of paragraphs (A) to (G) of this rule impossible or impractical, the person has to develop a new plan and obtain written approval from the chief to ensure plugging material placed in the well remains at the point where such material had been placed.