

OREGON ADMINISTRATIVE RULES
CHAPTER 690, DIVISION 63 — WATER RESOURCES DEPARTMENT

DIVISION 63

ABANDONMENT OF WELLS

Temporary Abandonment

690-63-005 Any well to be temporarily removed from service, temporarily abandoned due to a recess in construction, or any well to be temporarily abandoned before commencing service, shall be capped with a watertight seal, watertight welded steel cap, or threaded cap. In the event that temporary abandonment is to be of a short duration, or less than ninety (90) days from the date of removal of the drilling machine from the well site, a temporary steel cap may be welded to the well casing with at least four (4) separate welds, evenly spaced, each at least one-half (1/2) of an inch in length. In all cases, caps shall be of steel or cast iron of at least three-sixteenths (3/16) of an inch in thickness.

Stat. Auth.: ORS Ch. 537 & 543
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Casing, Sealing, and Capping of Temporarily Abandoned Wells

690-63-008 Any well to be temporarily abandoned for any reason shall be capped in conformance with rule 690-63-005 and shall be cased and sealed in conformance with rules 690-61-006 through 690-61-216.

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Permanent Abandonment

690-63-010 Any well that is to be permanently abandoned shall be completely filled in such a manner that vertical movement of water within the well bore, including vertical movement of water within the annular space surrounding the well casing, is effectively and permanently prohibited. All fluids within a well are to be permanently confined to the specific strata in which they were originally encountered.

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Abandonment of Uncased Wells in Unconsolidated Formations

690-63-011 Uncased wells to be abandoned that extend only into unconsolidated materials shall be completely filled with cement grout or concrete. (See Figure 1)

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Abandonment of Uncased Wells in Consolidated Formations

690-63-012 Uncased wells to be abandoned that penetrate a water-bearing rock formation shall be filled with concrete or cement grout, or alternating layers of cement grout or concrete and clean gravel throughout the water-producing horizon. A concrete or cement grout plug shall be constructed from the top of the rock formation to a depth of at least twenty (20) feet below the top of the rock formation. The remainder of the well above the rock formation shall be filled to land surface with cement grout or concrete. Plugs of cement grout or concrete, at least three (3) feet in length, shall be placed in non-producing zones between all water-bearing zones. In all cases, a cement grout or concrete plug, at least three (3) feet in length, shall be constructed in a non-producing stratum immediately above the uppermost water-bearing zone. (See Figure 2)

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Abandonment of Cased Wells

690-63-013 If the well casing or the liner pipe is not removed during the abandonment of a well, the casing or liner shall be thoroughly ripped or perforated throughout the water-producing zones and throughout all non-producing zones between the aquifers. The annular space between the casing or liner and the drillhole wall shall be effectively and completely filled with cement grout applied under pressure. The remainder of the well shall be filled with cement grout or concrete. Uncased horizons in a cased well to be abandoned shall be filled in accordance with rules 690-63-010 through 690-63-012. The casing of wells to be abandoned may be severed below land surface and removed. (See Figure 3)

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Abandonment of Artesian Wells

690-63-015 The flow of artesian wells to be abandoned shall be confined or restricted by cement grout applied under pressure, or by the use of a suitable well packer, or a wooden or cast lead plug placed at the bottom of the confining formation immediately above the artesian water-bearing zone. Cement grout or concrete shall be used to effectively fill the well to land surface. (See Figure 4)

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Abandonment of Filter Pack Wells

690-63-016 Appropriate methods of abandonment of filter pack or gravel enveloped wells, or other wells in which coarse material has been added around the inner casing should be determined individually by the responsible water well contractor. Variance and approval should be obtained from the Director of the Water Resources Department prior to abandonment.

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Abandonment of Drilled and Jetted Wells

690-63-020 A cement grout or concrete plug shall be placed opposite all perforations or openings in the well casing. The remainder of the well shall be filled with cement grout, concrete, or puddled clay.

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Removal of Well Casing During Abandonment

690-63-021 If the casing of a well is removed during abandonment, the well shall be plugged and sealed in accordance with rules 690-63-010 through 690-63-012 and shall be filled with sealing materials as the casing is removed.

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Abandonment of Gravel Packed Wells

690-63-025 All gravel packed wells shall be pressure grouted throughout the perforated section of the well casing. The remainder of the well shall be filled with cement grout,

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concrete, or puddled clay.

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77

Obstructions

690-63-026 All obstructions or debris which may interfere with effective sealing operations shall be removed from the well to be abandoned.

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Plugging Wells

690-63-030 If it is desired to remove the well casing during abandonment, the well shall be plugged as the casing is removed. The well shall be plugged with cement grout, concrete, or puddled clay. In the case of gravel packed wells, the entire gravel section shall be pressure grouted.

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Cement Grout

690-63-031 Cement grout for use in abandonment operations shall conform to the requirements of rule 690-61-086.

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Concrete

690-63-035 Concrete for use in abandonment operations shall conform to the requirements of rule 690-61-211.

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Method of Placement of Concrete or Cement Grout

690-63-040 Concrete or cement grout used as a sealing material in abandonment operations shall be introduced at the bottom of the well or required sealing interval and placed progressively upward to the top of the well. All such sealing materials shall be placed by the use of a grout pipe, tremie, or by dump bailer in order to avoid segregation or dilution of the sealing materials.

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79

Water Well Report

690-63-045 A water well report, fully describing all abandonment procedures, shall be submitted to the Water Resources Department in accordance with ORS 537.765.

Stat. Auth.: ORS Ch. 537
Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79