SED FORM No. 425a Rev. 10-1-87



CERTIFICATE AND ORDER FOR FILING

JUN 29 1988 BARBARA RULLATS SLORETARY OF STATE

PERMANENT SLOBE ADMINISTRATIVE RULES WITH THE SECRETARY OF STATE

I HERERY CERTIEV that	the attached easy is a total of the	
Thereor ochin I mat	the attached copy is a true, full and correct copy of PERMANENT rule(s) adopted on June	
y the Water Resour	ces Commission	(Oate)
(Department)	Division)	
o hecome effective June (Oate)	29, 1988	
The within matter having	come before the Water Resources Commission (Operatment) (Operatment) (Operatment)	after
Il procedures having been in the req	quired form and conducted in accordance with applicable statutes and rules and being fully advised in t	
Notice of Intended Action	noublished in Court and a court in the court	
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	HEREBY ORDERED THAT the following action be taken: (List Rule Number(s) or Rule Title(s) on A	ppropriate Lines Below)
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	LEG. COUNSELS OFF.	
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Administrative Rules of the	Water Resources Commission	
DATED this29	Oth day of June 19 88	•
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	By: (Authorized Signe	du /
	Title: Denty Diaretta	
tutory Authority: ORS		
ipter(s)183, 536,	537 and 540	or
ise Bill(s)		
plact Matter:	Ochate bill(s)	
Amendments to	the Well Construction and Maintenance Rules 05 through 690-235-020.	
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Further Information Contact	:Tom Paul	378-8455
	(Rule Coordinator)	Phone:

OREGON ADMINISTRATIVE RULES

for

CONSTRUCTION and MAINTENANCE of WELLS

prescribed by the WATER RESOURCES DEPARTMENT adopted by the WATER RESOURCES COMMISSION on June 24, 1988

(effective June 29, 1988)

OREGON ADMINISTRATIVE RULES

FOR

WELL CONSTRUCTION AND MAINTENANCE Water Resources Department

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DIVISION 220

ABANDONMENT OF WELLS

Temporary Abandonment

690-220-005 Any well to be temporarily removed from service, temporarily abandoned due to a recess in construction, or 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 90 days or less, the temporary steel cap may be welded to the well casing with a minimum of four (4) separate welds, evenly spaced, each at least one-half (1/2) of an inch in length. Steel or cast iron caps shall be at least three-sixteenths (3/16) of an inch in thickness.

Stat. Auth.: ORS Ch. 183, 536, 537 & 540 Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79; Amended & Renumbered from 690-63-005 by WRD 13-1986, f.

10-7-86, ef. 11-1-86

Permanent Abandonment

690-220-030 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 stopped.

Stat. Auth.: ORS Ch. 183, 536, 537 & 540
Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79;
Amended & Renumbered from 690-63-010 by WRD 13-1986, f. 10-7-86, ef. 11-1-86

Abandonment of Uncased Wells in Unconsolidated Formations

690-220-040 Uncased wells to be abandoned that extend only into unconsolidated materials shall be completely filled with cement grout or concrete. (See Figure 13, 1986).

Stat. Auth.: ORS Ch. 183, 536, 537 & 540 Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79; Renumbered from 690-63-011 by WRD 13-1986, f. 10-7-86, ef. 11-1-86

Abandonment of Uncased Wells in Consolidated Formations

690-220-050 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 14, 1986.)

Stat. Auth.: ORS Ch. 183, 536, 537 & 540

Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79; Renumbered from 690-63-012 by WRD 13-1986, f. 10-7-86, ef. 11-1-86

Abandonment of Cased Wells

690-220-060 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. 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 filed in accordance with rules 690-220-030 through 690-220-050. The casing of wells to be abandoned may be severed below land surface and removed. (See Figure 15, 1986.)

Stat. Auth.: ORS Ch. 183, 536, 537 & 540
Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79;
Renumbered from 690-63-013 by WRD 13-1986, f. 10-7-86, ef. 11-1-86

Abandonment of Artesian Wells

690-220-070 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 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 16, 1986.)

Stat. Auth.: ORS Ch. 183, 536, 537 & 540
Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79;
Renumbered from 690-63-015 by WRD 13-1986, f. 10-7-86, ef. 11-1-86

Abandonment of Drilled and Jetted Wells

690-220-080 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, or concrete.

Stat. Auth.: ORS Ch. 183, 536, 537 & 540 Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79; Amended & Renumbered from 690-63-020 by WRD 13-1986, f. 10-7-86, ef. 11-1-86

Abandonment of Filter or Gravel Pack Wells

690-220-090 Filter or gravel pack wells may be abandoned only with prior written approval of the Director of the method proposed for abandonment of the particular well. Any method of abandonment proposed must ensure that all perforated sections of the casing will be pressure grouted throughout, and that the remainder of the well is filled with cement grout, or concrete.

Stat. Auth.: ORS Ch. 183, 536, 537 & 540
Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79;
Amended & Renumbered from 690-63-016 & 690-63-025 by
WRD 13-1986, f. 10-7-86, ef. 11-1-86

Obstructions and Possible Contaminants

690-220-100 All obstructions or debris which may interfere with effective sealing operations shall be removed from the well to be abandoned. Any foreign matter capable of causing ground water contamination shall be removed prior to placing any sealing material.

OREGON ADMINISTRATIVE RULES

CHAPTER 690, DIVISION 220 - WATER RESOURCES DEPARTMENT

Stat. Auth.: ORS Ch. 183, 536, 537 & 540

Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79; Amended & Renumbered from 690-63-026 by WRD 13-1986, f. 10-7-86, ef. 11-1-86

Removal of Well Casing During Abandonment

690-220-110 If the casing of a well is removed during abandonment, the well shall be plugged and sealed in accordance with rules 690-220-030 through 690-220-050 and shall be filled with sealing materials as the casing is removed.

Stat. Auth.: ORS Ch. 183, 536, 537 & 540 Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79; Renumbered from 690-63-021 by WRD 13-1986, f. 10-7-86, ef.

Cement Grout

690-220-120 Cement grout for use in abandonment operations shall conform to the requirements of rule 690-210-310.

Stat. Auth.: ORS Ch. 183, 536, 537 & 540

Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78; ef. 1-1-79; Renumbered from 690-63-031 by WRD 13-1986, f. 10-7-86. ef.

Concrete

690-220-130 Concrete for use in abandonment operations shall conform to the requirements of rule 690-210-430.

Stat. Auth.: ORS Ch. 183, 536, 537 & 540

Hist.: WRD 3, f. & cf. 2-18-77; WRD 9-1978, f. 12-12-78, cf. 1-1-79; Renumbered from 690-63-035 by WRD 13-1986, f. 10-7-86, cf. 11-1-86

Method of Placement of Concrete or Cement Grout

690-220-140 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. 183, 536, 537 & 540 Hist.: WRD 3, f. & ef. 2-18-77; WRD 921978, f. 12-12-78, ef. 1-1-79; Renumbered from 690-63-040 by WRD 13-1986, f. 10-7-86, ef. 11-1-86