Secretary of State
Certificate and Order for Filing

PERMANENT ADMINISTRATIVE RULES

I certify that the attached copies* are true, full and correct copies of the PERMANENT Rule(s) adopted on September 24, 2001 by the
Date prior to or same as filing date.

Water Resources Commission
Agency and Division

690
Administrative Rules Chapter Number

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to become effective November 15, 2001 Rulemaking Notice was published in the March, 2001 Oregon Bulletin.**
Date upon filing or later Month and Year

RULEMAKING ACTION

List each rule number separately, 000-000-0000.

ADOPT:
Secure approval of rule numbers with the Administrative Rules Unit prior to filing.

See attachment

AMEND:

See attachment

REPEAL: N/A

enumber: Secure approval of rule numbers with the Administrative Rules Unit prior to filing.

Amend and Renumber: Secure approval of rule numbers with the Administrative Rules Unit prior to filing.

ORS 536.027, 536.090 & 537.505-537.795
Stat. Auth.: ORS

Other Authority

ORS 536.090 & 537.505 - 537.795
Stats. Implemented: ORS

RULE SUMMARY

The rules in OAR Chapter 690, Division 200 through 240 pertain to well construction activities. The rule changes approved by the Water Resources Commission address new well drilling technology that has been developed. The rules will improve readability and increase the ease of use by the pubic. Minor modifications occur throughout the rules in order to correct grammatical mistakes, add clarity to the existing rules and delete outdated information.

In addition to the aforementioned items, the rules address the following: (1) Well identification labeling, to clarify the level of enforcement for non-compliance and acceptable label attachment methods; (2) Abandonment of old wells within setback distances, clarifying ORS 537.775(3); (3) Drilling while under suspension, clarifying that onsite supervision must be provided by a licensed well driller; (4) Clarifying that monitor well vaults must be designed to prevent surface water from entering the vault; and (5) Clarify how bentonite may be used during the sealing of wells..

Authorized Signer — Date 11/15/01

*Copies include a photocopy of this certificate with paper copy of each rule listed in the Rulemaking Action.
**The *Oregon Bulletin* is published on the 1st of each month and updates the rule text found in the Oregon Administrative Rules Compilation. Notice forms must be submitted to the Administrative Rules Unit, Oregon State Archives, 800 Summer Street NE, Salem, Oregon 97310 by 5:00 p.m. on the 15th day of the preceding month unless this deadline falls on a Saturday, Sunday or legal holiday when Notice forms are accepted until 5:00 p.m. on the preceding workday.

Oregon Administrative Rules Affected in Rule Revision
Chapter 690

Adopted
690-200-0048
690-215-0016
690-215-0045
690-215-0055
690-220-0035
690-240-0011
690-240-0014
690-240-0016
690-240-0024
690-240-0026
690-240-0082
690-240-0139

Amended
690-200-0005
690-200-0020
690-200-0025
690-200-0027
690-200-0030
690-200-0040
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690-240-0180

Repeal
690-210-0020

Renumbered
690-210-0110 to 690-200-0047

Amend and Renumber
690-210-0015 to 690-200-0021
690-210-0040 to 690-200-0041
690-210-0050 to 690-200-0042
690-210-0080 to 690-200-0043
690-210-0090 to 690-200-0046
690-210-0120 to 690-210-0155
690-240-0140 to 690-240-0006

OREGON ADMINISTRATIVE RULES
WATER RESOURCES DEPARTMENT
CHAPTER 690
DIVISION 230

STANDARDS AND PROCEDURES FOR LOW-TEMPERATURE GEOTHERMAL PRODUCTION AND INJECTION WELLS AND EFFLUENT DISPOSAL SYSTEMS

690-230-0005
Policy and Purpose

(1) All low-temperature geothermal fluids are part of the ground water resources of the State of Oregon and shall be administered by the Water Resources Commission (Commission) under the provisions of ORS 537.010 to 537.796. The Commission recognizes that these fluids are developed primarily because of their thermal characteristics and that special management is necessary. Reservoir assessment of low-temperature geothermal fluids shall be conducted by the Commission in the same manner as ground water investigations outlined in ORS 537.665 and ORS 537.685.

(2) In areas where substantial thermal alteration exists, the Commission may declare a critical ground water area, or may otherwise control use of ground water, or order the discontinued use, repair or permanent abandonment of a well(s) causing substantial thermal alteration, in order to protect the thermal characteristics of the ground water resource. The Commission may also regulate appropriations to limit thermal interference between wells. Low-temperature geothermal appropriations with a bottom hole temperature less than 60 degrees Fahrenheit (F) shall not be protected from thermal interference caused by ground water appropriations for other purposes.

(3) The purpose of the following rules is to provide standards and procedures for the development, use and management of low-temperature geothermal fluids, while insuring proper management of all ground water resources so maximum beneficial use of the resource will be most effectively attained.

(4) These rules supplement OAR 690-200-0005 to 690-225-0110.

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

Hist.: WRD 12-1982, f. & ef. 12-14-82; WRD 5-1986, f. 5-16-86, ef. 5-19-86; Renumbered from 690-065-0005 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 18-1990, f. & cert. ef. 12-14-90

690-230-0020
Definitions

(1) "Bottom hole temperature": means the maximum temperature measured in the well or borehole. It is normally attained directly adjacent to the producing zone, commonly at or near the bottom of the borehole, and will in all cases be greater than or equal to the temperature of fluid produced from the borehole.

(2) "Low-temperature geothermal effluent": means the outflow, discharge or waste fluid, with

its associated dissolved or suspended constituents (being original or introduced), that is produced by a low-temperature geothermal well and its utilization system.

(3) "Low-temperature geothermal fluid": means any ground water used for its thermal characteristics that is encountered in a well with a bottom hole temperature of less than 250 degrees F, or any other fluid that is circulated within a well having a bottom hole temperature of less than 250 degrees F and used for its thermal characteristics.

(4) "Low-temperature geothermal injection well": means any well as defined under ORS 537.515(9) that is constructed or used for returning low-temperature geothermal effluent to a ground water reservoir.

(5) "Low-temperature geothermal production well": means any well as defined under ORS 537.515(9) with a bottom hole temperature of less than 250 degrees F that is constructed or used for the thermal characteristics of the fluid contained within.

(6) "Nonstandard low-temperature geothermal effluent disposal system": means any low-temperature geothermal effluent disposal system in which one or more of the following conditions are met:

(a) Any portion of the effluent is disposed of in a manner considered non-beneficial by the Director. This includes, but is not limited to, disposal via storm sewer, drainage hole or direct discharge to land surface or a surface water body;

(b) The effluent contains contaminants, other than heat, that have been added to the low-temperature geothermal fluid;

(c) The effluent is injected into a ground water reservoir that is not considered suitable by the Director. Factors which may render a ground water reservoir unsuitable include, but are not limited to, chemical or physical incompatibility of the fluids involved or adverse hydraulic characteristics of the receiving reservoir;

(d) There are other existing or potential site specific problems or conditions, that require the nonstandard designation of effluent disposal. Examples include, but are not limited to, instability of near-surface earth materials, undue alteration of thermal characteristics of ground water, unreasonable head changes or leakage of effluent back to the surface.

(7) "Secondary use": means the consumption of low-temperature geothermal effluent for beneficial use including, but not limited to, domestic, irrigation, stock watering, commercial and industrial uses.

(8) "Standard low-temperature geothermal effluent disposal system": means any low-temperature geothermal effluent disposal system in which one or more of the following conditions are met:

(a) No contaminants other than heat, have been added to the low-temperature geothermal fluid and the effluent is put to a secondary use;

(b) No contaminants, other than heat, have been added to the low-temperature geothermal fluid and the effluent is returned to the producing ground water reservoir or other suitable ground water reservoir as determined by the Director. In addition there are no other existing or potential problems or special conditions as determined by the Director, that include, but are not limited to, those factors, problems and conditions listed in subsections (6)(c) and (d) of this rule.

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

Hist.: WRD 12-1982, f. & ef. 12-14-82; WRD 5-1986, f. 5-16-86, ef. 5-19-86; Renumbered from 690-065-0010 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 7-1988, f. & cert. ef. 6-29-88; WRD 18-1990, f. & cert. ef. 12-14-90

Well Construction Standards

690-230-0030
Construction of Low-Temperature Geothermal Production and Injection Wells

(1) Low-temperature geothermal production and injection wells shall be constructed in conformance with applicable rules (OAR 690-200-0005 to 690-225-0110) with specific additions and modifications as described in OAR 690-230-0005 to 690-230-0140.

(2) Low-temperature geothermal production and low-temperature geothermal injection wells shall be constructed in a manner that protects ground water from contamination, waste and loss of artesian pressure, and substantial thermal alteration.

(3) If utilization of the well causes heating or cooling of the casing resulting in thermal expansion or contraction of the casing to the point that adherence to the minimum well construction standards will not prevent or eliminate ground water contamination, ground water waste, or loss of artesian pressure, or substantial thermal alteration, then the licensed well constructor shall submit a written request to the Director to use alternate construction methods and/or materials to prevent ground water contamination, ground water waste, loss of artesian pressure, and substantial thermal alteration. Written approval from the Director must be obtained prior to completion of the well.

(4) A well constructor or owner of a low-temperature geothermal production or injection well may submit well construction plans to the Department for assistance and review of construction details.

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

Hist.: WRD 12-1982, f. & ef. 12-14-82; Renumbered from 690-065-0015 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 7-1988, f. & cert. ef. 6-29-88; WRD 18-1990, f. & cert. ef. 12-14-90

690-230-0040
Location of Low-Temperature Geothermal Injection Wells Not Exceeding 15,000 Gallons Per Day

(1) No low-temperature geothermal injection well with an anticipated injection rate of less than 15,000 gallons per day shall be located within 75 feet of any existing low-temperature geothermal production well utilizing the same ground water reservoir without authorization from the Director, unless both the production and injection wells are owned or used by the same person.

(2) A request to construct a low-temperature geothermal injection well within 75 feet of a low-temperature geothermal production well shall be made in writing to the Director. The request shall list the names and addresses of the property owners, street addresses of the wells, and shall state the reason(s) for locating the injection well closer than 75 feet to the production well. The Director may approve construction of an injection well closer than 75 feet to a production well only if the Director determines that the hydrologic and thermal conditions described in OAR 690-230-0110(1) justify the closer spacing.

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

Hist.: WRD 12-1982, f. & ef. 12-14-82; Renumbered from 690-065-0020 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 7-1988, f. & cert. ef. 6-29-88; WRD 18-1990, f. & cert. ef. 12-14-90

690-230-0045
Location of Low-Temperature Geothermal Injection Wells Exceeding 15,000 Gallons Per Day

The owner of any low-temperature geothermal injection well having an anticipated injection rate of greater than 15,000 gallons per day is required to have a separation distance between the low-temperature geothermal injection and production wells that is adequate to protect the production wells from substantial thermal interference. The Director shall make a decision on the proposed separation distance based on information supplied by the owner as per OAR 690-230-0115.

Stat. Auth.: ORS Ch. 537

Hist.: WRD 18-1990, f. & cert. ef. 12-14-90

690-230-0050
Description of Proposed Well Use (Start Card)

For any low-temperature geothermal production or injection well, the report required under ORS 537.762 prior to commencing well construction shall identify the intended use of the well, the owner's name and the owner's mailing address.

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

Hist.: WRD 12-1982, f. & ef. 12-14-82; Renumbered from 690-065-0025 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 18-1990, f. & cert. ef. 12-14-90

690-230-0060
Identification of Intended Well Use (Well Log)

Any low-temperature geothermal production or injection well shall be clearly identified as such on the water **supply** well report filed with the Water Resources Department under ORS 537.765.

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

Hist.: WRD 12-1989, f. & ef. 12-14-82; Renumbered from 690-065-0025 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 7-1988, f. & cert. ef. 6-29-88; WRD 18-1990, f. & cert. ef. 12-14-90; WRD 9-2001, f. & cert. ef. 11-15-01

690-230-0070
Well-Head Protection Equipment

Adequate well-head equipment to insure public safety and the protection of the ground water resource shall be immediately installed on any low-temperature geothermal production well or low-temperature geothermal injection well when the temperature of the fluid being withdrawn from, being pumped from, or flowing from the well bore exceeds 65 degrees C (150 degrees F). A variance from the requirement for well-head protection equipment may be granted if a written

request demonstrates that the equipment is not necessary to safely complete the well.

Stat. Auth.: ORS Ch. 183, 536, 537 & 540
Hist.: WRD 12-1982, f. & ef. 12-14-82; Renumbered from 690-065-0035 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 18-1990, f. & cert. ef. 12-14-90

690-230-0075
Disposal of Low-Temperature Geothermal Fluids Produced During Drilling and Testing

Low-temperature geothermal fluids produced during drilling or testing of a low-temperature geothermal production or injection well shall be disposed of in a manner that minimizes hazards. For additional requirements on the disposal of low-temperature geothermal fluids produced during well drilling or testing, contact the Oregon Department of Environmental Quality.

Stat. Auth.: ORS Ch. 537
Hist.: WRD 18-1990, f. & cert. ef. 12-14-90

690-230-0080
Pump Testing of Low-Temperature Geothermal Injection Wells With an Anticipated Injection Rate of Less than 15,000 Gallons Per Day

(1) All low-temperature geothermal injection wells with an anticipated injection rate of less than 15,000 gallons per day shall be pump tested for a period of at least one hour. Test results must be recorded by the well constructor on the water **supply** well report. This minimum test shall be conducted as follows:

(a) Prior to testing, the static water level in the well shall be measured and recorded;

(b) The water shall be pumped into or from the well at a measured and steady rate. The pumping or withdrawal rate shall approximate the maximum anticipated injection rate;

(c) For tests that withdraw water from the well, only bailing or pumping the well is acceptable; and

(d) At a minimum the water level in the well shall be measured and recorded both at the end of pumping and after one hour of recovery.

(2) The Director may require the well owner to provide a more detailed test, separate from the water well report, that could include, but is not limited to, increased frequency of water level measurement, increased test duration and increased monitoring of observation wells. Such modifications will be required when possible impacts resulting from the development include, but are not limited to, thermal or hydrologic interference with existing water rights, water quality degradation or physical or mechanical failure of the well structure.

Stat. Auth.: ORS Ch. 183, 536, 537 & 540
Hist.: WRD 12-1982, f. & ef. 12-14-82; WRD 5-1986, f. 5-16-86, ef. 5-19-86; Renumbered from 690-065-0040 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 7-1988, f. & cert. ef. 6-29-88; WRD 18-1990, f. & cert. ef. 12-14-90; WRD 9-2001, f. & cert. ef. 11-15-01

690-230-0085
Pump Testing of Low-Temperature Geothermal Injection Wells With an Anticipated Injection Rate Exceeding 15,000 Gallons Per Day

(1) Low-temperature geothermal injection wells (other than flowing artesian wells) with an

anticipated injection rate of greater than 15,000 gallons per day, shall be pump tested for a period [~~for~~] **of** at least four hours. The pump test shall occur after the owner's pump test plan is approved by the Director, and prior to injecting into the well. The results of this test do not need to appear on the water well report. This test shall be in addition to the minimum one-hour test requirement under OAR 690-210-0370. Requirements for conducting the minimum four-hour pump test as discussed in this section (this type of test) are as follows:

(a) Prior to testing, the well shall be idle for a period of at least four hours;

(b) The static water level in the well shall be measured at least three times, no less than twenty minutes apart, during the hour prior to pumping the well;

(c) The water shall be pumped into or from the well at a measured and steady rate. The rate shall approximate the maximum anticipated injection rate;

(d) The pump discharge shall be controlled as much as possible to maintain a constant rate during the test. The discharge rate shall be as close as reasonably possible to the anticipated injection rate during normal use of the well. Discharge rate shall be recorded at the beginning of the test and once every hour thereafter;

(e) Water levels in the well shall be physically measured by a standard and acceptable method. Visual estimation of water level is not acceptable. Acceptable methods include:

(A) An electric water level measuring tape;

(B) An air line dedicated to the well;

(C) An acoustic sounder;

(D) An electronic pressure transducer; or

(E) Other water level measuring methods approved in advance by the Director.

(f) The water level measurements shall occur at least at the minimum frequency outlined below:

Time period	Water level measurement schedule
First 10 minutes	No more than 2 minutes apart
10 to 30 minutes	No more than 5 minutes apart
30 to 100 minutes	No more than 15 minutes apart
100 to 240 minutes	No more than 30 minutes apart

(g) After pumping stops, water level measurements shall be collected for a time equal to that of the pumping period, or until the well reaches 90 percent recovery from the maximum drawdown, whichever occurs first. Recovery water level measurements shall be collected on the same time schedule as described in subsection (1)(f) of this rule;

(h) The pump discharge shall be physically measured by a standard and acceptable method. Visual estimation of flow rate is not acceptable. Acceptable methods include:

(A) A properly installed flow meter, designed for geothermal use, which is functional and calibrated within reasonable limits for the type of meter;

(B) A properly installed weir or flume;

(C) A properly installed and calibrated orifice plate and manometer;

(D) Known volume/time calculations (including calibrated bucket and stopwatch up to 60 gallons per minute);

(E) Properly installed and used ultrasonic flow measuring devices; or

(F) Other discharge methods approved in advance by the Director.

(2) The owner may consult with the Department before selecting representative nearby wells

for monitoring during the pump test. If monitoring wells are selected in absence of specific instructions from the Department, the measurement of water levels in each well shall adhere to the schedule established in subsection (1)(f) of this rule.

(3) The Director may require the owner of the well to have a pump test performed that is more detailed than the test requirements described in sections (1) and (2) of this rule. This more detailed test could include, but is not limited to, increased frequency of water level measurements, increased test duration and increased monitoring of observation wells. Such modifications will be required when possible impacts resulting from the proposed injection include, but are not limited to, thermal or hydrologic interference with existing water rights, water quality degradation or physical or mechanical failure of the well structure.

(4) For flowing artesian wells, pump test specifications shall be prescribed by the Department on a case-by-case basis.

Stat. Auth.: ORS Ch. 537
Hist.: WRD 18-1990, f. & cert. ef. 12-14-90; f. & cert. ef. 11-15-01

690-230-0090
Water Temperature Measurement

The water **supply** well report prepared for any low-temperature geothermal well that is tested by pumping water from the well, shall include the temperature of the fluid as measured at the discharge point at the beginning and end of a timed production test as well as the maximum fluid temperature attained during the test. Bailing or pumping the well are acceptable methods of withdrawing water from the well during the test. Air testing is not acceptable.

(2) The well report prepared for any low-temperature geothermal well that is tested by pumping water into the well shall include the maximum temperature in the borehole and its corresponding depth.

(3) The well constructor is required to provide the temperature data on the water well report. The Director may use other temperature data in making the final determination of the bottom hole temperature.

Stat. Auth.: ORS Ch. 183, 536, 637 & 540
Hist.: WRD 12-1982, f. & ef. 12-14-82; WRD 5-1986, f. 5-16-86, ef. 11-1-86; WRD 7-1988, f. & cert. ef. 6-29-88; WRD 18-1990, f. & cert. ef. 12-14-90; WRD 9-2001, f. & cert. ef. 11-15-01

690-230-0100
Additional Standards for Low-Temperature Geothermal Injection Wells

Procedures required to inject effluent into a low-temperature geothermal injection well shall not cause failure of the well casing and/or seal materials or other components of the well structure, including but not limited to, movement, displacement or fracturing of the overburden.

Stat. Auth.: ORS Ch. 183, 536, 537 & 540
Hist.: WRD 12-1982, f. & ef. 12-14-82; WRD 5-1986, f. 5-16-86, ef. 5-19-86; Renumbered from 690-065-0050 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 18-1990, f. & cert. ef.

Low-Temperature
Geothermal Effluent Disposal

690-230-0110
Injection Plan for Wells with an Anticipated Injection Rate Not Exceeding 15,000 Gallons Per Day

No low-temperature geothermal injection well shall be used for injection without approval of the Director in accordance with OAR 690-210-0070. The injection plan for the proposed injection of less than 15,000 gallons per day to a low-temperature geothermal injection well will consist of a water well report [~~from~~] **for** both the injection and production wells. These well reports shall be sent to the Director for review. If the injection well **has** [~~have~~] not yet been constructed, or if a water **supply** well report is not available **for** [~~from~~] the injection or production well, acceptable data that shall be submitted as part of the injection plan include, but are not limited to, the following: geological information of the area, depth of the well(s) in question, water well reports from nearby wells, static water level data or water quality data from the well(s) in question. After review of the well reports, or other acceptable data, the Director may require water quality testing, as per OAR 690-230-0115(1) and (2), if the Director deems it necessary. The water quality testing may be required in [~~the~~] situations that include, but are not limited to, injection into a ground water reservoir that is different from the producing ground water reservoir, or when the well is of poor construction.

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

Hist.: WRD 12-1982, f. & ef. 12-14-82; Renumbered from 690-065-0055 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 7-1988, f. & cert. ef. 6-29-88; WRD 18-1990, f. & cert. ef. 12-14-90; WRD 9-2001, f. & cert. ef. 11-15-01

690-230-0115
Injection Plan for Wells with an Anticipated Injection Rate Exceeding 15,000 Gallons Per Day

No low-temperature geothermal injection well shall be used for injection without approval of the Director in accordance with OAR 690-210-0070. The injection plan for the proposed injection of greater than 15,000 gallons per day to a low-temperature geothermal injection well shall include, but is not limited to, the following:

(1) Details of well construction, including water **supply** well reports for the production well and the injection well.

(2) Description of the number and location of water bearing zones from both production and injection wells.

(3) Water temperature data from both the production and injection wells.

(4) Water level data from both the production and injection wells. If information from the well

report is not sufficient to determine the effects of injection, the Director may require additional geologic or hydrologic information, including but not limited to, temperature/depth logs of the wells.

(5) Water quality information including analysis by a laboratory certified by the Oregon Health Division for drinking water standards for the following parameters: arsenic, boron, calcium, carbonate or bicarbonate, chloride, fluoride, iron, magnesium, manganese, pH, potassium, silica, sodium, specific conductance, sulfate, suspended solids, total dissolved solids, and total coliform bacteria. If the low-temperature geothermal effluent is suspected to be of poor water quality or to be otherwise incompatible with the water in the receiving zone in the injection well, the Director may require additional specific water quality data. If the information on the well reports for the wells involved is not sufficient to determine the effects of injection, the Director may require additional geologic or hydrologic information, including but not limited to, temperature/depth logs of the wells. The Director may waive the requirement for specific portions or all of the chemical analyses if the fluid quality is known to be suitable for the intended production and injection.

(6) A map indicating the location and elevation of both the production well and the injection well in accordance with OAR 690-230-0045. All maps shall be drawn to a standard, even scale of not less than 4 inches = 1 mile. Small area maps may be more easily and clearly drawn to a larger scale, such as 1 inch = 400 feet. The well owner shall submit injection plans to the Director indicating proposed separation distances between production and injection wells on the parcel of land on which the production well is located, on the parcel of land on which the injection well is located, and on all adjacent parcels of land, as well as land surface elevation at each well head.

(7) Any planned safeguards to prevent substantial thermal or hydrologic interference with existing rights to appropriate ground water and surface water and alteration of existing or potential drinking water supplies.

Stat. Auth.: ORS Ch. 537
Hist.: WRD 18-1990, f. & cert. ef. 12-14-90; WRD 9-2001, f. & cert. ef. 11-15-01

Water Rights Procedure

690-230-0120
Processing of Applications

The appropriator shall make application for a water right to appropriate low-temperature geothermal fluid unless an exemption is provided for under ORS 537.545.

Stat. Auth.: ORS Ch. 183, 536, 537 & 540
Hist.: WRD 12-1982, f. & ef. 12-14-82; Renumbered from 690-065-0060 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 18-1990, f. & cert. ef. 12-14-90

690-230-0130
Exemption from Water Right Permit Application Use of Low-Temperature Geothermal Fluid

Low-temperature geothermal fluid appropriation for single industrial or commercial use including, but not limited to, electrical, agricultural, aquacultural, heating and/or cooling in an amount not exceeding 5,000 gallons per day shall be exempt from application for a water right as provided for under ORS 537.545.

(2) Low-temperature geothermal fluid appropriation for single or group domestic purposes including household heating and/or cooling shall be exempt from being required to apply for a water right as provided for under ORS 537.545 when the combined amount of ground water for single or group domestic purposes, including household heating and/or cooling, does not exceed 15,000 gallons per day. Construction must comply with well construction and maintenance rules as per OAR 690-200-0230.

(3) The exemptions under sections (1) and (2) of this rule apply to the use of ground water for any such purpose to the extent that it is beneficial and constitutes a right to appropriate ground water equal to that established by a ground water right certificate.

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

Hist.: WRD 12-1982, f. & ef. 12-14-82; Renumbered from 690-065-0065 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 18-1990, f. & cert. ef. 12-14-90

690-230-0140

Water Right Limitation for Nonstandard Effluent Disposal Systems

If the low-temperature geothermal effluent is disposed of by way of a nonstandard low-temperature geothermal effluent disposal system, the right to appropriate the low-temperature geothermal fluid shall be inferior to all subsequent rights for beneficial consumptive use and/or to the rights of those appropriators who make use of a standard low-temperature geothermal effluent disposal system. If a nonstandard low-temperature geothermal effluent disposal system is upgraded to a standard low-temperature geothermal effluent disposal system the associated water right retains the priority date established upon initial filing.

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

Hist.: WRD 12-1982, f. & ef. 12-14-82; Renumbered from 690-065-0070 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 18-1990, f. & cert. ef. 12-14-90