

AMENDATORY SECTION (Amending Order 97-08, filed 3/23/98, effective 4/23/98)

WAC 173-162-030 How are the words and phrases used in this chapter? (~~(1) "Abandoned well" means a well that is unused, unmaintained, or is in such disrepair as to be unusable.~~

~~(2) "Access port" is a 1/2- to 2-inch tapped hole or tube equipped with a screw cap, which provides access to the inner casing, for measurement of the depth to water surface. An access port also means a removable wellcap.~~

~~(3) "Annular space" is the space between the surface or outer casing and the inner casing, or the space between the wall of the drilled hole and the casing.~~

~~(4) "Aquifer" is a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs.~~

~~(5) "Artesian well" is a well tapping an aquifer bounded above and below by confining or impermeable rock or soil layers, or rock or soil layers of distinctly lower permeability than the aquifer itself. The water will rise in the well above the point of initial penetration (above the bottom of the confining or impermeable layer overlying the aquifer). This term includes both flowing and nonflowing wells.~~

~~(6) "Artificial gravel pack" is a mixture of gravel or sand placed in the annular space around the liner, perforated pipe, or well screen. A gravel pack is used to reduce the movement of finer material into the well and provide lateral support to the screen in unstable formations.~~

~~(7) "Artificial recharge" is the addition of water to an aquifer by activities of man, such as irrigation or induced infiltration from streams, or injection through wells, trenches, pits, and ponds.~~

~~(8) "Bentonite" is a mixture of swelling clay minerals, predominantly sodium montmorillonite.~~

~~(9) "Capped well" is a well that is not in use and has a watertight seal or cap installed on top of the casing.~~

~~(10) "Casing" is a pipe, generally made of metal or plastic, which is installed in the bore hole to maintain the opening.~~

~~(11) "Consolidated formation" means any geologic formation in which the earth materials have become firm and cohesive through natural rock forming processes. Such rocks commonly found in Washington include basalt, granite, sandstone, shale, conglomerate,~~

~~and limestone. An uncased bore hole will normally remain open in these formations.~~

~~(12))~~ See other definitions under chapter 173-160 WAC.

(1) "Constructing a well" or "construct a well" means:

(a) Boring, digging, drilling, or excavating a well;

(b) Installing casing, sheeting, lining, or well screens, in a well; ((or))

(c) Drilling a geotechnical soil boring; or

(d) Installing an environmental investigation well.

"Constructing a well" or "construct a well" includes the alteration of an existing well.

~~((13) "Contamination" has the meaning provided in RCW 90.48.020.~~

~~(14))~~ (2) "Continuing education provider" is any person, organization, school or other entity involved in education that has received approval from the department for their continuing education plan and curriculum.

(3) "Continuing education unit" is one credit approved by the department for time spent participating in training or instruction in subject areas approved by the department.

~~((15) "Curbing" is a liner or pipe made of concrete, precast tile or steel installed in dug wells to provide a annular space between the well bore and the liner or pipe for sealing.~~

~~(16))~~ (4) "Decommissioning" means to fill or plug a well so that it will not produce water, serve as a channel for movement of water or pollution, or allow the entry of pollutants into the well or aquifers.

~~((17))~~ (5) "Department" means the department of ecology.

~~((18))~~ (6) "Dewatering well" means a cased or lined excavation or boring that is intended to withdraw or divert ground water for the purpose of facilitating construction, stabilizing a land slide, or protecting an aquifer.

~~((19))~~ (7) "Director" means director of the department of ecology.

~~((20) "Disinfection" or "disinfecting" is the use of chlorine, or other disinfecting agent or process approved by the department, in sufficient concentration and contact time adequate to inactivate coliform or other indicator organisms.~~

~~(21))~~ (8) "Domestic water supply" is any water supply which serves a family residence(s).

~~((22) "Draw down" is the measured difference between the static ground water level and the ground water level induced by pumping.~~

~~(23) "Drilled well" is a well in which the hole is usually excavated by mechanical means such as rotary, cable tool, or auger drilling equipment.~~

~~(24))~~ (9) "Driven well" is a well constructed by joining a "drive point" to a length of pipe, then driving the assembly into the ground.

~~((25))~~ (10) "Dug well" is a well generally excavated with hand tools or by mechanical methods. The side walls may be supported by material other than standard weight steel casing.

~~((26) "Filter pack" means clean, well rounded, smooth, uniform, sand or gravel, which is placed in the annulus of the well between the bore hole wall and the liner, perforated pipe, or well screen to prevent formation material from entering the well.~~

~~(27) "Formation" means an assemblage of earth materials grouped together into a unit that is convenient for description or mapping.~~

~~(28) "Geotechnical information" means subsurface engineering properties used for the purpose of designing structures such as bridges, buildings, highways, pipelines, or for assessing slope stability.~~

~~(29)) (11) "Environmental investigation well" means a cased hole intended or used to extract a sample or samples of ground water, vapor, or soil from an underground formation and which is decommissioned immediately after the sample or samples are obtained. An environmental investigation well is typically installed using direct push technology or auger boring and uses the probe, stem, auger, or rod as casing. An environmental investigation well is not a geotechnical soil boring.~~

~~(12) "Geotechnical soil boring" or "boring" means an uncased well drilled for the purpose of obtaining soil samples to ascertain structural properties of the subsurface. ((Geotechnical soil boring includes auger borings, rotary borings, cone penetrometer probes and vane shear probes, or any other uncased ground penetration for geotechnical information.~~

~~(30)) (13) "Ground source heat pump boring" means a vertical boring constructed for the purpose of installing a closed loop heat exchange system for a ground source heat pump.~~

~~(14) "Ground water" means and includes ground waters as defined in RCW 90.44.035.~~

~~((31) "Grout" is a fluid mixture of cement, bentonite, and water used to seal the annular space around or between well casings, or to decommission wells.~~

~~(32) "Impermeable" is a descriptive term for earth materials which have a texture or structure that does not permit fluids to perceptibly move into or through its pores or interstices.~~

~~(33)) (15) "Grounding well" means a grounding electrode installed in the earth by the use of drilling equipment to prevent buildup of voltages that may result in undue hazards to persons or equipment. Examples are anode and cathode protection wells.~~

~~(16) "Instrumentation well" means a well in which pneumatic or electric geotechnical or hydrological instrumentation is permanently or periodically installed to measure or monitor subsurface strength and movement. Instrumentation well includes bore hole extensometers, slope indicators, pneumatic or electric pore pressure transducers, and load cells.~~

~~((34) "Liner" means any device inserted into a larger casing, screen, or bore hole as a means of maintaining the structural integrity of the well.~~

~~(35) "Lysimeter" means a well used to withdraw soil water or pore samples from subsurface soil or rock above the water table for chemical, physical, or biological testing.~~

~~(36))~~ (17) "Monitoring well" means a well designed to obtain a representative ground water sample or designed to measure the water level elevations in either clean or contaminated water or soil.

~~((37) "Nested well" means the installation of more than one cased resource protection well in one bore hole. This does not preclude casing reductions.~~

~~(38))~~ (18) "Observation well" means a well designed to measure the depth to the water or water level elevation in either clean or contaminated water or soil.

~~((39))~~ (19) "Operator" means a person who:

(a) Is employed by a well contractor;

(b) Is licensed under this chapter; or

(c) Who controls, supervises, or oversees the construction of a well or who operates well construction equipment.

~~((40) "Permeability" is a measure of the ease of which liquids or gas move through a porous material.~~

~~(a) For water, this is usually expressed in units of centimeters per second or feet per day. Hydraulic conductivity is a term for water permeability.~~

~~(b) Soils and synthetic liners with a water permeability of 1×10^{-7} cm/sec or less may be considered impermeable.~~

~~(41) "Piezometer" means a well designed to measure water level elevation at a specific depth beneath the water table.~~

~~(42) "Pollution" has the meaning provided in RCW 90.48.020.~~

~~(43) "Pressure grouting" is a method of forcing grout into specific portions of a well for sealing purposes.~~

~~(44) "PTFE" means polytetrafluoroethylene casing materials such as teflon. The use of the term teflon is not an endorsement for any specific PTFE product.~~

~~(45))~~ (20) "Owner" or "well owner" means the person, firm, partnership, copartnership, corporation, association, other entity, or any combination of these, who owns the property on which the well is or will be constructed or has the right to the well by means of an easement, covenant, or other enforceable legal instrument for the purpose of benefiting from the well.

(21) "Public water supply" is any water supply intended or used for human consumption or other domestic uses, including source, treatment, storage, transmission and distribution facilities where water is furnished to any community, collection or number of individuals, available to the public for human consumption or domestic use, excluding water supplies serving one single-family residence and a system with four or fewer connections all of which serve residences on the same farm.

~~((46) "PVC" means polyvinyl chloride a type of thermoplastic casing.~~

~~(47))~~ (22) "Remediation well" means a well intended or used to withdraw ground water or inject water, air (for air sparging), or other solutions into the subsurface for the purpose of remediating, cleaning up, or controlling potential or actual ground water contamination.

~~((48))~~ (23) "Resource protection well" means a cased boring

intended or used to collect subsurface information or to determine the existence or migration of pollutants within an underground formation. Resource protection wells include monitoring wells, observation wells, piezometers, spill response wells, remediation wells, environmental investigation wells, vapor extraction wells, ground source heat pump boring, grounding wells, and instrumentation wells.

~~((49))~~ (24) "Resource protection well contractor" means any person, firm, partnership, copartnership, corporation, association, or other entity, licensed and bonded under chapter 18.27 RCW, engaged in the business of constructing resource protection wells or geotechnical soil borings.

~~((50))~~ (25) "Spill response well" means a well used to capture or recover any spilled or leaked fluid which has the potential to, or has contaminated the ground water.

~~((51))~~ "Static water level" is the vertical distance from the surface of the ground to the water level in a well when the water level is not affected by withdrawal of ground water.

~~(52)~~ "Temporary surface casing" is a length of casing (at least four inches larger in diameter than the nominal size of the permanent casing) which is temporarily installed during well construction to maintain the annular space.

~~(53))~~ (26) "Structured properties" means subsurface engineering properties or geotechnical information used for the purpose of designing structures such as bridges, buildings, highways, pipelines, or for assessing slope stability samples.

(27) "Test well" is a well (either cased or uncased), constructed to determine the quantity of water available for beneficial uses, identifying underlying rock formations (lithology), and to locate optimum zones to be screened or perforated. If a test well is constructed with the intent to withdraw water for beneficial use, it must be constructed in accordance with the minimum standards for water supply wells, otherwise they shall be constructed in accordance with the minimum standards for resources protection wells. A water right permit, preliminary permit, or temporary permit shall be obtained prior to constructing a test well unless the anticipated use of water is exempt as provided in RCW 90.44.050. A "test well" is a type of "water well."

~~((54))~~ "Tremie tube" is a small diameter pipe used to place grout, filter pack material, or other well construction materials in a well.

~~(55)~~ "Turbidity" means the clarity of water expressed as nephelometric turbidity units (NTU) and measured with a calibrated turbidimeter.

~~(56)~~ "Unconsolidated formation" means any naturally occurring, loosely cemented or poorly consolidated earth material including such materials as uncompacted gravel, sand, silt and clay. Alluvium, soil, and overburden are terms frequently used to describe such formations.

~~(57))~~ (28) "Vapor extraction well" means a well used to withdraw gases or vapors from soil, rock, landfill, or ground water

or allow air or vapor to enter subsurface soil or rock for the purpose of remediating soil and/or ground water contamination.

~~((+58+))~~ (29) "Water well" means any excavation that is constructed when the intended use of the well is for the location, diversion, artificial recharge, observation, monitoring, dewatering or withdrawal of ground water. Water well includes ground source heat pump borings and grounding wells.

~~((+59+))~~ (30) "Water well contractor" means any person, firm, partnership, copartnership, corporation, association, or other entity, licensed and bonded under chapter 18.27 RCW, engaged in the business of constructing water wells.

~~((+60+))~~ (31) "Well alterations" include(s), deepening, hydrofracturing or other operations intended to increase well yields or change the characteristics of the well. Well alterations does not include general maintenance, cleaning, sanitation, and pump replacement.

~~((+61+))~~ ~~"Well completion" means that construction has progressed to a point at which the drilling equipment has been removed from the site, or a point at which the well can be put to its intended use.~~

~~(+62+))~~ (32) "Well contractor" means a resource protection well contractor and a water well contractor licensed and bonded under chapter 18.27 RCW.

~~((+63+))~~ (33) "Well driller(s)" or "driller(s)" ~~((is synonymous with "operator(s)".~~

~~(+64+))~~ means a resource protection well contractor or operator and a water well contractor or operator.

(34) "Well" means water wells, resources protection wells, ~~((instrumentation wells,))~~ dewatering wells, and geotechnical soil borings. Well does not mean an excavation made for the purpose of obtaining or prospecting for oil, natural gas, geothermal resources, minerals, or products of mining, or quarrying, or for inserting media to repressure oil or natural gas bearing formations, or for storing petroleum, natural gas, or other products.

[Statutory Authority: Chapter 18.104 RCW and RCW 43.21A.080. 98-08-031 (Order 97-08), § 173-162-030, filed 3/23/98, effective 4/23/98. Statutory Authority: Chapter 18.104 RCW. 88-08-070 (Order 88-58), § 173-162-030, filed 4/6/88; Order DE 73-10, § 173-162-030, filed 6/29/73.]

NOTES:

Reviser's note: RCW 34.05.395 requires the use of underlining and deletion marks to indicate amendments to existing rules, and deems ineffectual changes not filed by the agency in this manner. The bracketed material in the above section does not appear to conform to the statutory requirement.

AMENDATORY SECTION (Amending Order 97-08, filed 3/23/98, effective 4/23/98)

WAC 173-162-055 What types of operator licenses are available? ((Five)) Seven types of drilling licenses are available:

- (1) Water well operator training license.
- (2) Resource protection well operator training license.
- (3) Resource protection well operator license.
- (4) Water well operator license.
- (5) Conditional licenses for water or resource protection well drilling.
- (6) Retirement license for water and/or resource protection well drilling.
- (7) Inactive license for water and/or resource protection well drilling.

[Statutory Authority: Chapter 18.104 RCW and RCW 43.21A.080. 98-08-031 (Order 97-08), § 173-162-055, filed 3/23/98, effective 4/23/98.]

AMENDATORY SECTION (Amending Order 97-08, filed 3/23/98, effective 4/23/98)

WAC 173-162-060 How do you qualify for each license? (1) Training licenses.

(a) You are qualified to receive either a water or a resource protection training license if you:

(i) Submit a completed application to the department on forms provided by the department and pay the department a ((twenty-five)) seventy-five dollar application fee; and

(ii) Have completed at least six hundred hours of drilling experience working under the direct supervision of a licensed operator who has held a Washington state water and/or resource protection well drilling license for at least three years; and

(iii) Have obtained six continuing education units as approved by the department; and

(iv) Pass a written examination as provided for in RCW

18.104.080; and

(v) Pass an on-site examination by the department; and

(vi) Present a statement by a person or persons licensed under this chapter, other than a trainee, signed under penalty of perjury as provided in RCW 9A.72.085, verifying that:

(A) The applicant has acquired a minimum of six hundred hours of field experience required under this chapter; and

(B) The operator has assumed liability for any and all well construction activities of the applicant while the applicant was gaining his/her six hundred hours of field experience. The operator shall not be subject to any penalties or orders that may be issued for wells constructed by the applicant that were not the responsibility of the operator to have direct supervision and control over; and

(C) A licensed operator, except a trainee, who will sponsor the trainee, has been identified on the signed statement. The licensed operator who will be sponsoring the trainee, shall assume liability for any and all well construction activities of the trainee accomplished under the operator's control during the period of the trainee's license; and

(vii) In obtaining a statement from a well operator(s) under (a)(vi) of this subsection, an applicant who has gained drilling experience under more than one operator shall submit a statement from each operator. It is not necessary to accumulate all qualifying experience under one operator. Field experience for which a statement of verification and liability cannot be obtained, shall not be used as qualifying experience under this section.

All statements shall be entered on forms provided by the department.

(b) **Terms and conditions of a training license.**

(i) A person with either a resource protection or a water well training license may construct only those types of wells for which they are licensed without being under the direct supervision of a licensed operator provided:

(A) A licensed operator is available by radio, telephone, or other means of communication; and

(B) The licensed operator can reach the drill site within one hour.

(ii) A trainee shall maintain a daily drilling log identifying all work accomplished that day. The log shall remain in the possession of the trainee at all times and shall be reviewed and initialed daily by the responsible licensed operator. The drilling log shall be available for review by department and county officials whose county has received delegated authority as provided in RCW 18.104.043.

(iii) The work documented and initialed in the drilling log ((~~may~~)) shall be used in your application for a license under the training program completed, licensing category of this chapter.

(iv) All verifiable work performed by a trainee under the control of a licensed operator may be carried over to subsequent operator(s) who assume liability for the trainee.

(v) A trainee may apply and qualify for ((~~only one type~~))

both a resource protection ((or)) and a water well drilling((of)) training license ((at a time)), provided they meet the provisions of WAC 173-162-060 (1)(a) for each license they apply for.

(2) Water well or resource protection well operator licenses.

A person shall be qualified to receive either a water or resource protection well operator license if you meet the requirements of one of the following categories:

(a) New applicant category.

~~((i)) Applicants who have never held a well operator license ((and whose qualifying drilling experience was started after the effective date of this regulation)) qualify if they:~~

~~((A)) (i) Submit a completed application to the department on forms provided by the department and pay the department a ((twenty-five)) seventy-five dollar application fee; and~~

~~((B)) (ii) Submit proof that they have acquired five thousand four hundred hours of drilling experience under the direct supervision of a licensed well operator. Experience gained as a licensed trainee may be applied towards the experience requirements of this subsection; and~~

~~((C)) (iii) Submit proof that they have obtained thirty-two continuing education units; and~~

~~((D)) (iv) Pass a written examination as provided for in RCW 18.104.080.~~

~~(v) The department shall evaluate and approve all qualifying experience and educational training. If your qualifying drilling experience under (a)((i)(B)) (ii) of this subsection is from another state, the department may require an on-site examination.~~

~~((ii) Applicants who have never held a well operator license and who have obtained at least twelve months of qualifying drilling experience before the effective date of this regulation qualify to receive a license if they:~~

~~(A) Submit a complete application to the department; and~~

~~(B) Pay a twenty-five dollar fee; and~~

~~(C) Pass a written exam; and~~

~~(D) Show proof that they have completed a total of twenty-four months of drilling experience under a licensed operator. Your proof must show that you started working towards a drilling license prior to the effective date of this regulation, and that you have been diligently and continuously working towards obtaining a drilling license since you started. Proof shall consist of tax records, pay statements, or other documentation showing that you were under the supervision of a licensed operator.~~

~~(E) The department shall evaluate and approve all qualifying drilling experience. If your drilling experience under (a)(ii)(D) of this subsection is from another state, the department may require an on-site examination.~~

~~(iii) Individuals who have been working towards obtaining a drilling license but have acquired **less than twelve months** of qualifying drilling experience prior to the effective date of this chapter, may apply their education and experience towards the requirements of a training license.))~~

(b) Training program completed category.

Applicants who have held a valid training license will be qualified to receive an operator license if they:

(i) Submit a completed application to the department on forms provided by the department and pay the department a ~~((twenty-five))~~ seventy-five dollar application fee; and

(ii) Submit proof that they have worked as a licensed trainee under the provisions of this chapter for at least three thousand six hundred hours; and

(iii) Have obtained fourteen continuing education units while working under the training program.

(c) Licensed experience category.

(i) Applicants who have never held an operator license in Washington state qualify if they:

(A) Submit a completed application to the department on forms provided by the department and pay the department a ~~((twenty-five))~~ seventy-five dollar application fee; and

(B) Hold a valid well operator license, or equivalent, in another state and can show proof that the license has been held for a period of at least three years. The department shall evaluate and approve all experience acquired by out-of-state licensed operators; and

(C) Have obtained thirty-two continuing ~~((educational))~~ education units as approved by the department; and

(D) Pass a written examination as provided for in RCW 18.104.080; and

(E) Passed an on-site examination by the department. The on-site examination may be waived by the department.

(F) Proof of licensing under (c)(i)(B) of this subsection shall be submitted with the application for license. Proof of drilling experience may include drilling logs, federal or state tax records; employment records; or other records acceptable to the department.

(ii) Individuals, other than trainees, whose Washington operator license has been suspended, revoked, expired or whose license status has ~~((expired))~~ changed to retired or inactive may apply for a new license. These individuals qualify to receive a license if:

(A) The terms of the order of suspension or revocation have been met; and

(B) They submit a completed application to the department on forms provided by the department and pay the department a ~~((twenty-five))~~ seventy-five dollar application fee; and

(C) They have obtained seven continuing ~~((educational))~~ education units for each year or portion of a year the license has been revoked, suspended, inactive, retired, or expired; and

(D) They pass a written examination as provided for in RCW 18.104.080; and

(E) They pass an on-site examination by the department.

(F) The written and/or on-site examination(s) under (c)(ii)(D) and (E) of this subsection may be waived by the department.

(3) Individuals who received an operator license for either

water well or resource protection well drilling (~~((after the effective date of these regulations))~~) are qualified to receive the other license if they:

(a) Currently hold a valid well operator license under one of the categories in subsection (2) of this section(~~(. The license must have been issued by the department after the effective date of these regulations))~~); and

(b) Submit a completed application to the department on forms provided by the department and pay a (~~(twenty-five))~~ seventy-five dollar application fee; and

(c) Pass a written examination; and

(d) Pass an on-site examination if their field experience was gained in another state. The department may waive the on-site examination.

(e) Submit proof of at least six hundred hours of additional well drilling experience for the other type of license you wish to obtain. **EXAMPLE** - You currently hold a water well operator license that was issued by the department after the effective date of these regulations. You also wish to be licensed to construct resource protection wells. You will qualify to receive the resource protection operator license by making an application, paying the fee, and showing proof of six hundred hours of resource protection well drilling experience, passing a written exam, and passing an on-site exam if your drilling experience was gained in another state. Proof of experience will consist of drilling reports showing you were the operator of record on at least fifteen resource protection wells, or other documentation showing experience approved by the department.

(4) **Conditional license.**

(a) A conditional license may be issued to a former licensed operator for the sole purpose of authorizing the well operator to comply with an order to correct a problem with a well. The terms of the license shall detail the extent and limitations placed on the well operator. This may include limitations of work to be completed on a specific well, license expiration, and any other limitation set by the department.

(b) A conditional license cannot be issued to a person who has never held an operator license issued under the provisions of this chapter.

(5) Retirement license.

(a) A person shall be qualified to receive a retirement license if you meet the following requirements:

(i) Submit a completed application to the department on forms provided by the department and pay the department a seventy-five dollar application fee; and

(ii) Hold a current active license for a minimum of ten years; and

(iii) Have no outstanding enforcement actions.

(b) The holder of a retirement license may not engage in any licensed activities. The holder of a retirement license may apply for a new license under WAC 173-162-060(2).

(6) Inactive license.

(a) A person shall be qualified to receive an inactive license if you meet the following requirements:

(i) Submit a completed application to the department on forms provided by the department and pay the department a seventy-five dollar application fee; and

(ii) Show proof of inactive status based on military documents, hospitalization records, out of country drilling or other extraordinary circumstances as determined by the department; and

(iii) Hold a current active license; and

(iv) Have no outstanding enforcement actions.

(b) Extraordinary circumstances do not include failure to notify the department of a change of address; postal service error and domestic disputes (divorce or separation).

(c) The holder of an inactive license must resubmit an application to extend inactive license status at the end of each two-year period. The holder of an inactive license may not engage in any licensed activities. The holder of an inactive license may apply for a new license under WAC 173-162-060(2).

[Statutory Authority: Chapter 18.104 RCW and RCW 43.21A.080. 98-08-031 (Order 97-08), § 173-162-060, filed 3/23/98, effective 4/23/98. Statutory Authority: Chapter 18.104 RCW. 88-08-070 (Order 88-58), § 173-162-060, filed 4/6/88; Order DE 73-10, § 173-162-060, filed 6/29/73.]

AMENDATORY SECTION (Amending Order 97-08, filed 3/23/98, effective 4/23/98)

WAC 173-162-070 What application fees are required?
Application fees are (~~twenty-five~~) seventy-five dollars for each operator or training license.

[Statutory Authority: Chapter 18.104 RCW and RCW 43.21A.080. 98-08-031 (Order 97-08), § 173-162-070, filed 3/23/98, effective 4/23/98; Order DE 73-10, § 173-162-070, filed 6/29/73.]

AMENDATORY SECTION (Amending Order 97-08, filed 3/23/98, effective 4/23/98)

WAC 173-162-075 How often do I need to renew my license? (1) Licenses issued under this chapter, except a training license, shall be renewed every two years.

(2) A training license shall be valid for a period of two years from the time it was originally issued. A training license cannot be renewed. However, a one-time extension may be granted upon show of good cause by the trainee. The limit of the extension shall be for no longer than twenty-four months (~~and~~). The trainee will be required to earn seven continuing education units for each year or portion of a year the license is held. The department may waive the continuing education requirement of this subsection. Each request will be evaluated on a case-by-case basis. A (~~twenty-five~~) seventy-five dollar fee will be charged for the extension.

[Statutory Authority: Chapter 18.104 RCW and RCW 43.21A.080. 98-08-031 (Order 97-08), § 173-162-075, filed 3/23/98, effective 4/23/98.]

AMENDATORY SECTION (Amending Order 97-08, filed 3/23/98, effective 4/23/98)

WAC 173-162-080 What are the conditions and cost of renewing a drilling license? (1) Between the 1993 legislation, Laws of 1997, chapter 387, and the adoption of these regulations implementing the legislation, the well operator licenses issued and renewed by the department met the requirements of the 1993 legislation and may be renewed for either a water well or resource protection well operator license or both as provided in subsection (2) of this section.

(2) A holder of a valid license may renew the license if they:
(a) Submit a completed application on forms (~~provided~~) approved by the department; and

(b) (~~Except as provided in subsection (3) of this section,~~) Show proof that they successfully completed fourteen continuing

education units during the past twenty-four months of the license term. A minimum of two continuing education units out of the fourteen required units must be about Washington state drilling or licensing regulations; and

(c) Pay a (~~twenty-~~) seventy-five dollar renewal fee for each license they wish to renew.

(3) (~~If you currently hold a valid operator license that was issued prior to the effective date of this regulation, you may renew that license and receive a water well operator license and/or a resource protection well operator license without meeting the requirements for continuing education until you apply for license renewal in the year 2000.~~

~~(4))~~ If you fail to submit a completed application for renewal, the license shall expire at the end of its effective term. A complete application includes the submission of the renewal fee and proof of completion of the required continuing education.

~~((5))~~ (4) If your license has expired, you will have thirty days in which to renew it. The thirty-day extension period is to be used only to submit a late application and fee. It is not to be used to gain continuing education units. You must not engage in any licensed activities during this time. If you fail to submit your renewal application, fee, and proof of continuing education after the extension period has expired, you must apply for a new license as provided in this chapter.

~~((6))~~ (5) The department may refuse to renew a license if the license is currently suspended or revoked, or the licensee has not complied with an order issued by the department or has not paid a penalty imposed under RCW 18.104.155, unless the order or penalty is under appeal.

~~((7))~~ (6) Operators shall not construct or decommission a well after their license has expired.

[Statutory Authority: Chapter 18.104 RCW and RCW 43.21A.080. 98-08-031 (Order 97-08), § 173-162-080, filed 3/23/98, effective 4/23/98; Order DE 73-10, § 173-162-080, filed 6/29/73.]

AMENDATORY SECTION (Amending Order 97-08, filed 3/23/98, effective 4/23/98)

WAC 173-162-085 Continuing education. Ecology, with the assistance of the technical advisory group created in RCW 18.104.190, shall develop and administer a program for continuing education for the purpose of ensuring continued professional growth

and competency of licensed operators.

~~((1) **What is continuing education?**~~

~~Continuing education is your opportunity to gain additional knowledge into subjects that directly relate to the drilling profession. It is designed to enhance your drilling skills, keep you informed on technological advances, and keep you informed on current state and local regulations. The ultimate goal is to ensure the highest quality of professional drilling. Continuing education is required of every person applying for an operator license and for every driller renewing an operator license.~~

~~(2) **How do I obtain the required continuing education credit?**~~

~~(a) Continuing education may be obtained from a number of sources. The department as well as other state and local agencies may provide continuing education classes. Additionally, private organizations or individuals may also present approved classes for credit.~~

~~(b) The primary ways to receive credits will be:~~

~~(i) Attend and/or successfully complete classes, courses, workshops, or seminars that have been preapproved for credit, and/or~~

~~(ii) Have the class, course, workshop, or seminar you plan on attending or have attended evaluated by the technical advisory group and approved by the department for credit, and/or~~

~~(iii) Completion of correspondence courses will be considered and evaluated on a case-by-case basis.~~

~~(3) **How will credit be assigned?**~~

~~(a) The technical advisory group shall evaluate all courses, classes, workshops, or seminars and recommend assignment of continuing education credits. Their evaluation shall be reviewed by the department for approval.~~

~~(b) The following criteria shall be utilized to evaluate and assign credit:~~

~~(i) Course agenda and how well the subject relates to the business, technical, and/or regulatory aspects of well drilling and to the knowledge, skills, and abilities required in the well drilling profession.~~

~~(ii) Subject(s) difficulty.~~

~~(iii) Instructor qualifications.~~

~~(iv) Student course evaluations may be utilized to assign credit to courses.~~

~~(c) Course sponsors may have their courses preapproved by submitting a request to the department on forms provided by the department.~~

~~(d) Individuals planning on attending or who have attended classes, courses, workshops, or seminars that were not preapproved for credit must request a course evaluation and credit approval through the department on forms provided by the department.~~

~~(e) All courses, classes, workshops, or seminars must be open to anyone who wants to attend. This does not preclude a provider from imposing reasonable requirements for attendees such as fees and providing their own safety equipment.~~

~~(4) **What types of general topics, workshops or seminars will**~~

~~be accepted?~~

~~(a) General subject areas include: Occupational health and safety, business and office skills, interpersonal skills, technical aspects associated with drilling, and other subject areas approved by the department.~~

~~(b) Workshops, seminars, classes, or courses conducted by professional associations, governmental agencies, private businesses, and individuals, may be accepted, provided the subject(s) meets the provisions of this chapter.~~

~~(5) **How do I get credit for participating in a continuing education program?**~~

~~(a) A person is qualified to receive continuing education credit upon showing proof of attendance at an approved class, course, workshop, or seminar.~~

~~(b) Proof includes: Certificates of completion, transcripts, attendance rosters, diplomas, or other documents approved by the department.~~

~~(6) **General information on continuing education:**~~

~~(a) Credits received during a renewal period that are in excess of the requirements cannot be used for any succeeding years. EXAMPLE: A driller earning 20 continuing educational credits during their two-year renewal period cannot apply the six credits towards a future renewal.~~

~~(b) Credits shall not be assigned to courses, workshops, classes, or seminars attended prior to July 1, 1993.~~

~~(c) It is the operator's/trainee's responsibility to track and maintain records of their continuing education credits.~~

~~(d) Continuing education units will **not be required to renew** an operator license prior to January 1, 2000.~~

~~(e) A person licensed for both water well and a resource protection well construction need only obtain fourteen continuing educational units per renewal period.~~

~~(f) A person applying to receive both a water well and resource protection well operator license need only meet the continuing education unit requirements for one license.))~~ (1) What is continuing education? Continuing education is your opportunity to gain additional knowledge into subjects that directly relate to the well drilling profession. It is designed to enhance your knowledge, drilling skills, and keep you informed on technological advances, as well as keeping you informed on current state and local regulations. The ultimate goal is to ensure the highest quality of professionalism in the well drilling industry. Continuing education is required of every person applying for an operator's license and for every licensed operator renewing their license. Continuing education units (CEUs) are earned by attending continuing education programs. Continuing education programs consist of approved training, classes, courses, workshops, offerings, correspondence instructions, or other means of providing instruction.

(2) How do I obtain required continuing education units?

(a) Except as provided for in this chapter, continuing education units will only be obtained from an approved continuing

education provider (a continuing education provider is: Any person, organization, school or other entity involved in education and have received approval from the department for their continuing education plan and curriculum).

(b) The department shall maintain a current list of all continuing education providers and programs. This list will be available on the department's web page and/or by request.

(c) In order to receive continuing education units you must successfully complete continuing education programs. You must be present throughout the entire instructional period in order to be eligible to receive full credit.

(3) How do I become an approved continuing education provider? Persons, organizations, schools, and other entities that provide training and education must submit a continuing education plan to the department for approval. Upon approval of the plan, the requestor becomes an approved continuing education provider. The department may waive the requirement to have a continuing education plan for colleges, universities, or other entities that have an accreditation requirement of their own.

(a) What are the required elements of a continuing education plan? A continuing education plan must contain the following required elements:

(i) Contact information. Name of the person, organizations, schools, and other entities applying to become an approved continuing education provider. Their mailing address, telephone number(s), and e-mail address. Names of a contact person(s), their mailing address, telephone number(s), and e-mail address.

(ii) Statement of qualifications. A statement of qualifications consists of a summary of the provider's experience in providing education programs; references; and lists of any licenses they hold and/or membership in any professional organizations.

(iii) Statement of resources. A statement of resources shall identify the location(s) of the continuing education program and the number of individuals required to put on the program.

(iv) Statement of organization. A statement of organization consists of a summary of how the courses will be advertised; number and frequency of classes offered during the year; a description of the method to be used to evaluate courses; a description of how attendance will be verified and reported to the department; a description of the type of proof of completion to be awarded to each student; and a cancellation policy.

(v) Statement of accountability. The statement of accountability shall justify the cost of the class and include a statement assuring delivery of courses by the provider.

(b) As provided for in this chapter, the department in consultation with the technical advisory group created in RCW 18.104.190 may waive the requirement for a provider to have a continuing education plan consistent with the goals of this WAC.

(4) How do I get credit for participating in a continuing education program and report units to the department?

(a) A person is qualified to receive continuing education

units after the program has been evaluated and upon showing proof of attendance and completion of an approved continuing education program. Each continuing education provider is required to provide their students with documentation, approved by the department, showing successful completion of the program.

(b) All operators/trainees must report their continuing education units to the department prior to their license renewal date.

(c) The department will keep a record of the licensees' continuing education units as they are submitted. You may access your record through the department's web site or request a copy of your record.

(d) It is the individual's responsibility to track and maintain records of their continuing education units.

(5) General information on continuing education:

(a) Continuing education units received during a renewal period that are in excess of the requirements cannot be used for any succeeding years.

Example: A driller earning twenty continuing education units during their two-year renewal period cannot apply the six extra units towards any future renewal.

(b) New applicants may have continuing education units assigned for courses, workshops, classes, or seminars attended no more than five years prior to their application date.

(c) An individual licensed for both water well and resource protection well construction need only obtain fourteen continuing education units per renewal period.

(d) An individual applying for a new license for both a water well and resource protection well operator's license need only meet the continuing education unit requirements for one license.

(e) For new applicants or currently licensed individuals, two continuing education units must cover Washington state department of ecology laws and regulations provided by the department or their designee. This section will take effect one year from the effective date of this rule.

(6) What topics will be approved for continuing education programs? General topics include: Occupational health and safety; business and office skills; interpersonal skills; technical aspects associated with well design, construction, development, maintenance, and testing; geology and ground water sciences, safety, welding, HAZMAT training, first aid; and other topics relating directly to well construction and the ground water industry as approved by the department. The department may also request approved continuing education providers to cover certain topics in their continuing education plan based on trends or observations from department compliance officers.

(7) How will continuing education units be assigned?

(a) The following criteria shall be utilized when evaluating programs and assigning continuing education units.

(i) The subjects' relevance to the business, technical, and/or regulatory aspects of well drilling;

(ii) How well the subject will enhance the knowledge, skills,

and abilities required in the well drilling profession;

(iii) Length of program; and

(iv) Final group selection.

The program syllabus must be reviewed in order to address these criteria.

(b) A program syllabus shall contain the following:

(i) Course title.

(ii) Instructor name(s).

(iii) Instructor qualifications.

(iv) Course length.

(v) Course outline, detailing specific subject material to be taught and testing schedule.

(vi) A statement regarding how the course pertains to the business, technical, regulatory, and safety aspects of well construction.

(vii) A statement regarding the goals and objectives of each class.

(viii) A statement that the class will be open to all who desire to attend.

(ix) Admission cost.

(x) A description of textbooks, supplemental readings, or materials such as safety equipment, calculators, or other items the attendee will need to provide.

(xi) The date and time of the course and driving directions.

(c) Based on the syllabus review, each continuing education program will be categorized into one of seven groups:

(i) Group one - Subjects that directly relate to the business, technical, regulatory, and safety aspects of well construction; and subjects that enhance ground water protection and increased professionalism within the drilling community.

(A) Washington well construction and licensing statutes and regulations.

(B) Construction methodology, well design, development, maintenance, and testing.

(C) Protection of the ground water resource.

(D) Hydrogeology and ground water science.

(E) Equipment operation and maintenance.

(F) Computer skills.

(G) Welding.

(H) Business management and office skills.

(I) Interpersonal skills.

(J) Occupational health and safety.

(K) Map reading skills.

(L) Local and state health regulations.

(M) DOT regulations.

(ii) Group two - Subjects that will improve the industries' knowledge and understanding of subjects related to ground water.

(iii) Group three - Subjects not covered under group one or two, but benefit the driller in their professional development.

(A) Vendor specific product/sales courses.

(B) Pumps.

(iv) Group four - Miscellaneous courses.

(A) College courses.

(B) Correspondence courses.

(C) Trade school courses that do not fall into another group.

(v) Group five - Attending conventions (trade show).

(A) Washington Ground Water Association.

(B) National Ground Water Association.

(C) Pacific Northwest Expo.

(D) Other state recognized conventions.

(vi) Group six - Preapproved classes.

(A) OSHA HAZWOPPER 40 hour basic course - 20 credits.

(B) OSHA HAZWOPPER 8 hour refresher - 4 credits.

(C) Red Cross 8 hour first aid/CPR - 4 credits.

(D) Others as approved by the department.

(vii) Group seven - Programs for which no credits are assigned.

(d) A program will be assigned continuing education unit(s) based on the group that best describes the training session and the published length of the training session.

The following is a unit value for each group:

Group one - One unit per hour.

Group two - One-half unit per hour.

Group three - One-quarter unit per hour.

Group four - Unit value equal to the education credit, not to exceed four continuing education units per license renewal period or trainee applicant. No more than eight for all other applicants.

Group five - One unit per convention.

Group six - As listed.

Group seven - No unit value.

(e) Operators/trainees who have attended continuing education programs that were not previously approved may receive continuing education units by providing an application to become a provider and class syllabus form to the department.

(f) Individuals may receive continuing education units for preparing and presenting classes as follows:

(i) No continuing education units will be assigned for class preparation/presentation to nondrilling audiences.

(ii) One continuing education unit per hour of presentation and one CEU per hour of preparation time. Continuing education units allowed for preparation time are limited to no more than twice the time it took to present the course. Example - one hour class, no more than two hours preparation time allowed. Total three CEUs.

(g) All continuing education programs must be open to anyone who wants to attend. This requirement does not preclude a provider from imposing reasonable requirements for attendees such as, but not limited to, fees, space limitations and providing their own safety equipment.

(8) What is the department's role in providing continuing education?

(a) The department shall approve all continuing education programs and assign continuing education units required by this chapter. The technical advisory group shall assist the department

in their evaluation by reviewing continuing education programs and recommending assignment of continuing education units on classes referred to them by the department.

(b) The department will provide technical support including those meeting the requirements in subsection (5)(e) of this section, in the form of speakers and materials for use in continuing education programs to approved continuing education providers upon request and at their sole discretion.

[Statutory Authority: Chapter 18.104 RCW and RCW 43.21A.080. 98-08-031 (Order 97-08), § 173-162-085, filed 3/23/98, effective 4/23/98.]

AMENDATORY SECTION (Amending Order 97-08, filed 3/23/98, effective 4/23/98)

WAC 173-162-095 What should I know about the written and on-site examinations? The written and on-site examinations for licenses issued under this chapter are prepared, administered, and evaluated by the department.

(1) **What subjects will the written exam cover?** The examinations are prepared to test the knowledge and understanding of the following subjects:

(a) Washington state ground water laws as they relate to constructing and decommissioning wells;

(b) Sanitary standards for constructing wells;

(c) Types of well construction and decommissioning;

(d) Drilling techniques, tools and equipment;

(e) Geology (including soil and rock description) as it relates to well construction;

(f) Rules and regulations of the department relating to constructing a well, test pumping, and equipment maintenance;

(g) Preparation of intent forms, well reports, and requests for variances;

(h) Township and range location system as it relates to location of wells;

(i) Basic ground water hydraulics as it relates to well construction and protection of the resource; and

(j) Rules and regulations of the Washington state department of health relating to source approval and source protection of public drinking water systems.

(2) **What subjects will the on-site test cover?**

The on-site examination shall test the applicant's field

skills and knowledge in the following areas:

- (a) Safety.
- (b) General knowledge of equipment operation.
- (c) Equipment maintenance.
- (d) Drilling knowledge.
- (e) Well development.
- (f) Implementation of the construction standards under chapter 173-160 WAC.

(3) When and where are the written examinations given?

(a) Examinations will be held at such a time and place as may be determined by the department, but not later than thirty days after the department accepts the completed application package consisting of:

- (i) A completed application form with appropriate fee; and
- (ii) Proof of required continuing education; and
- (iii) Proof of required drilling experience.

(b) Upon receipt of a completed application package, the department shall notify you of the date, time and place of the next scheduled written examination. You shall notify the department at least twenty-four hours prior to your scheduled exam date if you cannot meet the examination schedule. Your notice shall include the reason(s) why you cannot meet the schedule. If you fail to notify the department, or fail to reschedule your exam within thirty days of your initial exam date, you will forfeit your application and fee. You must submit a new application and fee in accordance with WAC 173-162-060 if you wish to take the exam.

(c) If your application package is received after an examination has been scheduled and there is either insufficient time for the department to notify you of the time and place of the examination or you are unable to take the examination at the scheduled time, the thirty-day period will start from the scheduled examination date.

(4) When and where are the on-site examinations given?

(a) You must pass the written exam before you can take the on-site exam.

(b) If you are required to take an on-site examination you will receive an authorization form along with the confirmation of your written test results.

~~(c) ((Following the receipt of your test results, you will be responsible to select an authorized on-site advisor. The advisor will assist you and the department with coordinating the on-site examination. A list of the on-site advisors will be included with your test results.~~

~~(d)) You((, the advisor,)) and the department will schedule a mutually agreed upon time and place for the on-site exam. RCW 18.104.080 requires that examinations be held within thirty days after a completed application is filed with the department. ((If this is not practical, you must notify the department and request an extension to the testing schedule. Your request shall include:~~

~~(i) The reason(s) why you cannot meet the schedule.~~

~~(ii) Acceptable reasons for rescheduling exams may include: Weather; availability of advisors or department staff; or health~~

problems.

~~(e) Failure to complete the on-site exam within ninety days may result in having to reapply and reschedule another on-site exam.~~

~~(f))~~ (d) You ~~((and the on-site advisor will))~~ shall arrange for all the equipment, materials, and location for the on-site examination.

~~((g))~~ (e) The department must be present during the on-site examination.

(5) **When will I be notified of the results of my written and on-site examination?**

The department shall notify you of your test results within ten days after each examination.

(6) **If I fail an exam, may I take a retest?**

(a) If you fail the written or on-site exam, you shall not be entitled to take the examination, or any parts of the examination for a period of thirty days from the date of your original examination.

(b) If you failed to pass the written exam, you are considered a new applicant in all respects.

(c) If you fail the on-site exam, you will be required to arrange a retest after a thirty-day waiting period. You will not be required to retake the written exam.

[Statutory Authority: Chapter 18.104 RCW and RCW 43.21A.080. 98-08-031 (Order 97-08), § 173-162-095, filed 3/23/98, effective 4/23/98.]

REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 173-162-140

What are the requirements to become an on-site testing advisor?