

Chapter 344-12 WAC GENERAL RULES

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WAC

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DISPOSITION OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER

344-12-085 Casing requirements. [Rule 15, filed 3/23/60.] Repealed by WSR 82-12-052 (Order 3, Resolution No. 7), filed 6/1/82. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. Later promulgation, see WAC 344-12-087.
344-12-090 Blowout prevention. [Rule 16, filed 3/23/60.] Repealed by WSR 82-12-052 (Order 3, Resolution No. 7), filed 6/1/82. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. Later promulgation, see WAC 344-12-092.
344-12-100 Well-head fittings. [Rule 18, filed 3/23/60.] Repealed by WSR 82-12-052 (Order 3, Resolution No. 7), filed 6/1/82. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW.
344-12-105 Tubing. [Rule 19, filed 3/23/60.] Repealed by WSR 82-12-052 (Order 3, Resolution No. 7), filed 6/1/82. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW.
344-12-110 Separators. [Rule 20, filed 3/23/60.] Repealed by WSR 82-12-052 (Order 3, Resolution No. 7), filed 6/1/82. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW.
344-12-115 Chokes. [Rule 21, filed 3/23/60.] Repealed by WSR 82-12-052 (Order 3, Resolution No. 7), filed 6/1/82. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW.
344-12-120 Agents to have access to all wells and well records, to witness or make well tests, and to measure production from wells. [Rule 22, filed 3/23/60.] Repealed by WSR 82-12-052

(Order 3, Resolution No. 7), filed 6/1/82. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. Later promulgation, see WAC 344-12-112.

344-12-130 Procedure for plugging. [Rule 24, filed 3/23/60.] Repealed by WSR 82-12-052 (Order 3, Resolution No. 7), filed 6/1/82. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. Later promulgation, see WAC 344-12-131.

344-12-135 Seismic, core, and other exploratory holes to be plugged. [Rule 25, filed 3/23/60.] Repealed by WSR 82-12-052 (Order 3, Resolution No. 7), filed 6/1/82. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW.

WAC 344-12-001 Promulgation. Pursuant to the power and authority delegated to the oil and gas conservation committee by the Oil and Gas Conservation Act, chapter 78.52 RCW, after due notice the oil and gas conservation committee, hereinafter designated as the committee, does hereby make, adopt, and promulgate the following general rules and regulations deemed by the committee to be reasonably necessary for the proper administration and enforcement of the act.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-001, filed 6/1/82; Promulgation, filed 3/23/60.]

WAC 344-12-010 General. (1) The following rules and regulations have been adopted by the committee as general rules of statewide application; these may be added to or changed, as required or deemed necessary by the committee, in accordance with RCW 78.52.050.

(2) Special rules, regulations, and orders will be adopted when required or deemed necessary and shall prevail as against general rules, regulations, and orders if in conflict therewith.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-010, filed 6/1/82; Rule 1, filed 3/23/60.]

WAC 344-12-015 Rule making. Notice of the intent to and the adoption of rules and regulations and their effective date shall be as provided in chapter 34.04 RCW, and RCW 78.52.050. An oral hearing shall be held for proposed rules and regulations.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-015, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-015, filed 6/1/82; Rule 2, filed 3/23/60.]

WAC 344-12-020 Hearings. (1) Hearings before the committee shall be open to the public. Hearings may be called by the committee, for the purpose of taking action in respect to any matter within its jurisdiction, upon its own motion or upon the petition of any interested party. Petitions for hearings shall be written and verified and may be in the form of a letter, shall be brief and concise, and shall state in general terms the matter upon which action of the committee is desired, the relief sought, and the reasons therefor.

(2) Contested case (adjudicatory) hearings before the committee shall be conducted under the procedures set forth in chapter 344-08 WAC and chapter 34.04 RCW.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-020, filed 6/1/82; Rule 3, filed 3/23/60.]

WAC 344-12-025 Notice of hearings. (1) In addition to notice as may otherwise be required by law notice of all hearings shall be given by publishing notice thereof not less than twenty days before the date of the hearing in a newspaper of general circulation in the state.

(2) The committee shall maintain a general mailing list and shall place thereon the names and addresses of all persons, firms, corporations, or governmental agencies who make request in writing to be included on such list. Each person, firm, corporation, and governmental agency on such mailing list shall be mailed at the address listed a copy of all rules, regulations, notices, and orders issued by the committee. Except as otherwise provided by law the failure to mail a copy of these to any such person, firm, corporation, or governmental agency shall not affect the validity of any hearing held pursuant to the notice published in accordance with the preceding paragraph or any rule, regulation, or order issued pursuant to such hearing.

(3) Except as otherwise provided by law notices of hearing shall state the time and place of the hearing, whether called by the committee on its own motion or at the request of an interested party, naming the party making the request, and shall state briefly and in general terms the subject matter of the hearing and relief sought.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-025, filed 6/1/82; Rule 4, filed 3/23/60.]

WAC 344-12-030 Hearings—Place of—Continuances—Action on. (1) Hearings shall be held in Olympia, Washington unless otherwise ordered by the chairman. After notice of hearing is once given, the hearing may be continued to another day and from day to day and place to place by order of the committee.

(2) Except as otherwise provided by law, upon receipt of a proper request or application for hearing, the committee shall, if in its judgment a hearing is warranted and justifiable, promptly call a hearing, and after such hearing and with all convenient speed, and in any event within twenty days after the conclusion of the hearing, shall take action with regard to the subject matter thereof.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-030, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-030, filed 6/1/82; Rule 5, filed 3/23/60.]

WAC 344-12-035 Administrative agent. The department of natural resources is the designated agent of the committee for the purpose of carrying out the Oil and Gas Conservation Act. It shall be charged with the duty of administering and enforcing this act consistent with the policies adopted by the committee. It shall administer and enforce the policies adopted by the committee together with all rules and or-

ders adopted and delegated by the committee including but not limited to issuing permits, enforcement action, and other activity authorized under this chapter. The department shall designate a state oil and gas supervisor.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-035, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-035, filed 6/1/82; Rule 6, filed 3/23/60.]

WAC 344-12-040 Definitions. Unless context otherwise requires, the words defined shall have the meaning set forth in RCW 78.52.010 and in the following definitions when found in these rules and regulations, to wit:

(1) "Barrel" means 42 United States gallons of oil at a temperature of 60 degrees Fahrenheit at atmospheric pressure.

(2) "Blowout" means an uncontrolled sudden or violent escape of oil, water, gas, or drilling fluid from a well.

(3) "Blowout preventer" means an effective casinghead control equipped with special gates, rams, and expansion type preventer which can be closed around the drill pipe, or which completely closes the top of the casing when the pipe is withdrawn.

(4) "Bottom-hole pressure" means the pressure in pounds per square inch or bars at the producing interval of an oil or gas well determined by means generally recognized as satisfactory by the oil and gas industry.

(5) "Casing pressure" means the pressure built up between the casing and tubing when the casing and tubing are packed off at the top of the well, or the pressure within the casing.

(6) "Casinghead gas" means any gas or vapor, or both gas and vapor, indigenous to an oil stratum and produced from such stratum with oil.

(7) "Christmas tree" means an assembly of valves and fittings at the head of the casing of a well to control the flow. Also spoken of as "well-head connections."

(8) "Condensate" means the liquid hydrocarbons recovered at the surface that result from condensation due to reduced pressure or temperature of petroleum hydrocarbons existing in a gaseous phase in the reservoir.

(9) "Cubic foot of gas" means the volume of gas contained in one cubic foot of space at a standard pressure base and a standard temperature base. The standard pressure base shall be 14.73 pounds per square inch absolute and the standard temperature base shall be 60 degrees Fahrenheit. Conversions of values to conform with standard conditions shall be made in accordance with Ideal Gas Laws, corrected for deviation from Boyle's Gas Law when the pressure at the point of measurement is in excess of 200 psi gauge.

(10) "Day" means a period of twenty-four consecutive hours from 7:00 a.m. one day to 7:00 a.m. the following day.

(11) "Gas allowable" means the amount of natural gas authorized to be produced by order of the committee.

(12) "Gas lift" means any method of lifting liquid to the surface by injecting gas into the wellbore from which production is obtained.

(13) "Gas-oil ratio" means the relation of the gas in cubic feet to the production of oil in barrels, measured concurrently for a limi-

ted period; i.e. the number of cubic feet of gas as produced, divided by the number of barrels of oil as produced.

(14) "Groundwaters" means all waters that exist beneath the land surface or beneath the bed of any stream, lake or reservoir, or other body of surface water within the boundaries of this state, whatever may be the geological formation or structure in which such water stands or flows, percolates, or otherwise moves (Regulation of public groundwaters, chapter 90.44 RCW).

(15) "Month and calendar month" means the period or interval of time from 7:00 a.m. on the first day of any month of the calendar to 7:00 a.m. of the first day of the next succeeding month of the calendar.

(16) "Offset operator" means the operator, owner, or lessee of land contiguous to or cornering on land involved in oil and gas activities.

(17) "Oil allowable" means the amount of oil authorized to be produced by order of the committee.

(18) "Person" means any natural person, corporation, association, partnership, receiver, trustee, executor, administrator, guardian, fiduciary, or representative of any kind, and any governmental or political subdivision, or any agency thereof including any local state or federal government agency.

(19) "Pressure maintenance" means the introduction of gas or fluid to maintain the pressure of a reservoir.

(20) "Producer" means the owner or operator of a well or wells capable of producing oil or gas, or both.

(21) "Product" has the meaning set forth in RCW 78.52.010(18). It includes but is not limited to refined crude oil, crude tops, topped crude, processed crude petroleum, residue from crude petroleum, cracking stock, uncracked fuel oil, fuel oil, treated crude oil, residuum, gas oil, casinghead gasoline, natural gas gasoline, naptha, distillate, propane, butane, gasoline, kerosene, benzine, wash oil, waste oil, blended gasoline, lubricating oil, blends or mixtures of oil with one or more liquid products or byproducts derived from oil or gas, and blends or mixtures of two or more liquid products or byproducts derived from oil or gas.

(22) "Purchaser" means any person who acquires title to oil or gas by purchase from a producer or other person.

(23) "Reasonable market demand" as to oil, means the amount of oil reasonably needed for current consumption and use, together with a reasonable amount of oil for storage and working stock; and as to gas, the term means the amount of gas of any type reasonably needed to supply the current consumption and use of such type of gas.

(24) "Reservoir pressure" means the static or stabilized pressure in pounds per square inch gauge existing at the face of the formation in one or more oil or gas wells as determined by commonly accepted engineering principles.

(25) "Separator" means an accepted field apparatus used in the industry for separating oil, gas, water, etc., with efficiency as it is produced.

(26) "Shut in pressure" means the surface pressure noted at the well head after the well is completely shut in.

(27) "State" means the state of Washington.

(28) "String" means a continuous length of connected sections of casing, liner, drill pipe, or tubing run into the well, including all attached equipment.

(29) "Surface water" means standing or free flowing fresh water at or above the ground surface, including springs, seeps, intermittent or perennial streams or creeks, rivers, lakes, ponds or wetlands.

(30) "Tender" means a permit or certificate of clearance, approved and issued or registered under the authority of the committee, for the transportation of oil, gas, or products.

(31) "Transporter" means and include any person engaged in the transportation of oil or gas.

(32) "Underground source of drinking water (USDW)" means groundwaters which contain fewer than 10,000 mg/L of total dissolved solids or which are obtainable for beneficial uses.

(33) "Waters of the state" means all lakes, rivers, ponds, streams, inland waters, groundwaters, salt waters, and all other waters and water courses within the jurisdiction of the state of Washington.

(34) "Well history" or "well record" means the chronological written record of all operations, including formation tests, water shut-off tests, description of water, oil, or gas encountered in drilling a well, chemical composition and quantities of materials used in the drilling or treating of a well, with such additional information as to gas volumes, pressures, rate of fill-up, water depths, caving strata, casing record, etc., as is usually recorded in the normal procedure of drilling.

(35) "Well log" means a systematic, detailed, and correct record of formations encountered in drilling a well, and shall include all electric, radioactivity, and other logs, if run.

(36) "Wetlands" means those areas extending landward for two hundred feet (61 meters) in all directions as measured on a horizontal plane from the ordinary high-water mark; and all marshes, bogs, swamps, floodways, river deltas and floodplains associated with or influenced by any stream, river, lake, or tidal water, or combination thereof.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-040, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-040, filed 6/1/82; Rule 7, filed 3/23/60.]

WAC 344-12-043 Exploratory well locations. (1) No exploratory well, or any part of the bore, casing, or drill site, shall be located closer than 500 feet (152 meters) to the external boundary of those lands on which the operator and/or their partners hold a contiguous mineral-interest.

(2) Upon written request to the supervisor, the committee may grant exceptions to the exploratory well set back requirements for good cause shown, provided that all owners of oil and gas and surface rights within a 500-foot radius of the well consent in writing to the proposed location.

[Statutory Authority: RCW 78.52.120, 78.52.155, 78.52.040 and 78.52.050. WSR 88-14-026 (Order 11), § 344-12-043, filed 6/29/88.]

WAC 344-12-045 Development units. As determined by competent geological, geophysical, engineering, or other scientific testimony,

data, and evidence, the committee shall fix development units for the pool:

(1) No development unit in pool, deemed by the committee to be an oil reservoir, shall be larger than 160 acres (65 hectares) nor shall the well be located closer than 500 feet (152 meters) to the lease line nor closer than 1,000 feet (305 meters) to the nearest well drilling to or capable of producing from the same pool. The committee shall have the right to waive these limits in accordance with RCW 78.52.210.

(2) No development unit in a pool, deemed by the committee to be a gas reservoir, shall be larger than 640 acres (261 hectares) nor shall the well be located closer than 1,000 feet (305 meters) to the lease line nor closer than 2,000 feet (610 meters) to the nearest well drilling to or capable of producing from the sale pool. The committee shall have the right to waive these limits in accordance with RCW 78.52.210.

(3) If upon application, and after notice and hearing, the committee shall find that a well drilled at the location prescribed by any applicable rule of the committee would not produce in paying quantities or that surface conditions would substantially add to the burden or hazard of such well, the committee may enter an order permitting the well to be drilled at a location on which the applicant prima facie owns an ownership or contractual right to drill, other than that prescribed and shall include in such order suitable provisions to prevent the production from that well of more than its just and equitable share of the oil and gas in the pool. Application for an exception shall set forth the names of the lessees or owners of contiguous or cornering properties and shall be accompanied by a plat or sketch map drawn to the scale of not smaller than one inch equalling 2,000 feet (610 meters) or as otherwise required, accurately showing to scale the property for which the exception is sought and accurately showing to scale all other completed and drilling wells on this property and accurately showing to scale all contiguous or cornering surrounding properties and wells. The application shall be verified by some person acquainted with the facts, stating that all facts therein stated are within the knowledge of the affiant and are true, and that the accompanying plat is accurately drawn to scale and correctly reflects pertinent and required data. Upon the filing of such application, the committee shall give notice of such filing by certified mail to all lessees and owners of lands towards whom the well is being moved, if closer to the proposed well than offset distances set forth in subsections (1) and (2) of this section.

(4) In filing a Form-1 (Application to drill, redrill, or deepen), the surface distance must be shown between the proposed location and other wells within a radius of 1,000 feet (305 meters) for oil tests, and 3,000 feet (914 meters) for gas tests.

(5) When a well completion report, Form-2, has been submitted to the department, and such well is not intended to be plugged or abandoned the department shall determine if a discovery has been made. The department shall forward its determination to the committee. If the department or the committee has determined a discovery has occurred the committee shall hold a hearing pursuant to RCW 78.52.205.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-045, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-045, filed 6/1/82.]

DRILLING

WAC 344-12-050 Application to drill, redrill, or deepen (Form-1). (1) A person desiring to drill, redrill, or deepen a well in search of oil or gas shall for each such well:

- (a) Apply to the supervisor of such intent on Form-1;
- (b) Submit a completed environmental checklist;
- (c) Provide information on drill site layout, blowout prevention equipment details, mud program, casing and cementing program, and mud pit details;
- (d) Designate location and source of water supply;
- (e) Indicate topographic features of well site including drainage patterns, and any associated surface waters and wetlands;
- (f) Provide a narrative statement describing the proposed measures to be taken for protection of the environment, including, but not limited to, the prevention or control of:
 - (i) Fires;
 - (ii) Soil erosion;
 - (iii) Pollution of surface and groundwaters;
 - (iv) Damage to fish and wildlife or other natural resources;
 - (v) Air and noise pollution; and
 - (vi) Hazards to public health and safety;
- (g) Provide such other pertinent information or data which the supervisor may require to support the application for the development of oil and gas resources and the protection of the environment including site reclamation procedures;
- (h) Designate methods and site for disposal of waste materials and drilling muds that contain heavy metals or are considered hazardous waste;
- (i) Notify the surface landowner, the landowners tenant, or other surface users in writing with a copy to the supervisor;
- (j) Shall pay a fee, which is not refundable, in the following amounts for each application:
 - (i) For each well the estimated depth of which is three thousand five hundred feet or less, two hundred fifty dollars;
 - (ii) From three thousand five hundred one feet to seven thousand feet, five hundred dollars;
 - (iii) From seven thousand one feet to twelve thousand feet, seven hundred fifty dollars; and
 - (iv) From twelve thousand one feet and deeper, one thousand dollars.

The fee shall accompany the application and be in cash or check, drawn upon or issued by a Washington state qualified public depository payable to state treasurer, state of Washington. Upon receipt of the application, the fee, and other specified information, the supervisor may issue to such person a permit to drill, after completion of an inspection of the proposed drill site, unless the drilling of the well is contrary to law, or to a rule, regulation, or order of the committee. The drilling of the well is prohibited until a permit to drill is obtained in accordance with the provisions of this section. If the permit is disallowed, the supervisor will immediately notify the person in writing the reasons therefor. The permit will be on such form containing such conditions as the committee may prescribe.

(2) An operator shall be required to obtain a permit to deepen a well. The fee, which is based on the estimated depth of the well as per subsection (1)(j) of this section, is required for the permit to deepen a well previously drilled under permit. No permit is required for workover so long as the well remains completed in the same pool, provided the casing above the fresh-water shut-off depth is not to be disturbed or altered by the redrilling, conditioning, or testing to be performed.

(3) A permit, for which a fee of one hundred dollars is required, shall be obtained for a relatively shallow well or wells (less than 2,000 feet) (610 meters) not drilled in search of oil and gas but solely to obtain subsurface geological data: Provided, That holes drilled for the purpose of obtaining information about or sampling of the offshore beds of ocean waters shall be governed by chapters 344-16 and 173-15 WAC. Applications for a permit for a shallow well or wells shall comply with the provisions of subsection (1) of this section.

(4) Prior to the initiation of any seismic geophysical survey, the supervisor shall be given written notification on Form-1. Notification shall consist of:

(a) Name of the operator;

(b) Name of the geophysical contractor;

(c) Approximate locations including counties in which the survey is to be conducted;

(d) Type of seismic survey;

(e) Number of line miles to be surveyed;

(f) Evidence that a shoreline permit (RCW 90.58.140) has been obtained for proposals within two hundred feet of surface waters; and

(g) A notification fee of one hundred dollars per survey.

(5) A copy of each application received shall be transmitted by the supervisor within ten days to the department of ecology, department of social and health services, and general purpose local governments of the jurisdiction in which the proposed activity would occur or in the case of a city or a town a well proposed within a three mile radius of its municipal boundaries and other affected agencies as deemed necessary by the supervisor.

(6) A person shall not be issued a permit unless that person holds an ownership or contractual right to locate and operate a drilling operation upon the proposed drilling site.

(7) Designated representatives of general purpose local governments are requested to inform the supervisor in writing within ten working days of those local government zoning ordinances, permit requirements, or other factors, if any, which may apply to a well proposed to be drilled, redrilled, or deepened.

[Statutory Authority: RCW 78.52.120, 78.52.155, 78.52.040 and 78.52.050. WSR 88-14-026 (Order 11), § 344-12-050, filed 6/29/88. Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-050, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-050, filed 6/1/82; § 8, Resolution No. 3 (codified as WAC 344-12-050(3)) filed 6/28/63; Rule 8 (codified as WAC 344-12-050 (1), (2), and (4)), filed 3/23/60.]

WAC 344-12-055 Transfer of drilling permit. Each person who succeeds to the rights under a drilling permit shall, within ten days after the rights are acquired, notify the supervisor in writing there-

of. Such transfer shall not become effective until the bond requirements of WAC 344-12-063 have been met.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-055, filed 6/1/82; Rule 9, filed 3/23/60.]

WAC 344-12-060 Bond to be furnished. (1) The supervisor, except as hereinafter provided, shall require from the owner before a permit for drilling, redrilling, or deepening will be issued a good and sufficient bond in the sum of not less than \$50,000.00 for each well payable to the state of Washington, conditioned on compliance with chapter 78.52 RCW, permit conditions, the rules and regulations and orders of the committee. Said bond shall remain in force and effect until the plugging of said well is approved by the supervisor and all laws, permit conditions, rules and regulations and orders have been complied with. It is provided, however, that any owner in lieu of such bond may file with the supervisor a good and sufficient blanket bond in the principal sum of not less than \$250,000.00 covering all wells drilling or to be drilled.

(2) Bond or bonds herein required shall be executed by the owner as principal and by a surety company acceptable to the DNR and authorized to do business in the state of Washington as surety. Should the surety on such bond fail or refuse to require compliance with the conditions of the bond to the satisfaction of the supervisor, such surety shall be liable to the state of Washington in such a sum, within the limits of the sum stated on the face of the bond, as will indemnify the state of Washington for the cost of requiring compliance with the conditions of the bond.

(3) In lieu of the bond required by this section the owner may file with the committee a cash deposit, or an assignment of a savings account or of a certificate of deposit in a Washington bank on an assignment form prescribed by the committee, or a bank letter of credit acceptable to the supervisor. In the event a certificate of deposit is provided in lieu of a bond the owner shall guarantee payment of principal in the event penalties are assessed for early redemption of the certificate.

(4) The amount of the bond to be furnished for permits required under WAC 344-12-050(3) shall be \$20,000.00.

[Statutory Authority: RCW 78.52.155 (2)(e), 78.52.040 and 78.52.050. WSR 87-17-004 (Order 512), § 344-12-060, filed 8/6/87. Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-060, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-060, filed 6/1/82; Rule 10, filed 3/23/60.]

WAC 344-12-063 Bond termination—Release. (1) A bond or bonds as required by this chapter shall remain in force and effect until:

(a) The plugging of said well or wells and reclamation of the well site or sites has been completed and has been approved by the supervisor and all requirements of chapter 78.52 RCW, rules and regulations, permit conditions, and orders of the committee have been complied with to the satisfaction of the supervisor; or until

(b) A new bond has been filed by a successor in interest and approved by the supervisor.

(2) Transfer of property does not release the bond. If a transfer of property is made and the principal desires to be released from the bond:

(a) The principal shall notify the supervisor in writing in accordance with this chapter that the well or wells, describing each well by reference to its number and location on a forty-acre tract, section, township, and range, has or have been transferred to a named transferee for the purpose of ownership or operations;

(b) As a part of the same instrument the transferee must accept such transfer, assume all obligations and accept the responsibility of such well or wells under a new bond tendered therewith. When the supervisor has approved the transfer, the transferor may be released from the plugging responsibility of the well or wells and reclamation of the site or sites and other requirements, and if, such well or wells are now covered by the transferee's bond, the transferor's bond may be released by the supervisor.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-063, filed 6/1/82.]

WAC 344-12-064 Operation of seismic surveys. Drilling and produced fluids from seismic shot holes shall be contained at each site. All fluid flows shall be killed immediately and the department shall be given notification of the location and depth from which the flow occurred. Insofar as is possible, disturbance of the soil shall be minimized. Vehicle traffic over seismic lines and line access routes shall be minimized. Siltation of ground or surface waters is prohibited.

[Statutory Authority: RCW 78.52.120, 78.52.155, 78.52.040 and 78.52.050. WSR 88-14-026 (Order 11), § 344-12-064, filed 6/29/88.]

WAC 344-12-065 Identification of well. Every person drilling for oil or gas or operating, owning, controlling, or in possession of any well drilled for oil or gas, shall post on the derrick or in a conspicuous place near the well, a sign in reasonably large and clear lettering, showing the name of the person drilling, operating, owning, or controlling the well; the name of the lease; the number of the well; the permit number; and the legal land description of the location by county, section, township, and range. Such sign shall be in place when drilling commences and shall be maintained until such time as the well is abandoned.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-065, filed 6/1/82; Rule 11, filed 3/23/60.]

WAC 344-12-070 Well history or record and well log (Form-2).
(1) During the drilling, redrilling, or deepening of any well, except seismic, that penetrates into the bedrock below the unconsolidated surficial cover, the owner, operator, contractor, driller, or other person responsible for the conduct of the drilling operations shall

keep at the well, or at his headquarters in the state, or otherwise conveniently available to the supervisor, a detailed and accurate record of the drilling operations and a log of the strata drilled, reduced to writing from day to day, which shall be accessible to the committee and its agents at all reasonable times. A copy of the well history or record and a copy of the well log shall be furnished to the supervisor upon Form-2, prescribed by the committee, within thirty days after the completion or abandonment of the well. The well history or record shall describe the progress of drilling, the water, oil, or gas encountered, and such additional information as to gas volumes, pressures, rate of fill-up, water depths, caving strata, casing record, shooting, perforating, chemical treatment, general chemical composition, and volumes used of drilling mud, description and results of water-shut-off tests, casing tests, drill-pipe packer tests, and other tests, as are usually recorded in the normal procedure of drilling. The well log shall progressively describe the strata and formations encountered. In the drilling of exploratory wells, a ditch sample shall be collected at ten-foot intervals for the state and furnished to the supervisor within six months after completion of the well as a dry hole or as a producing well. In the drilling of wells within development units, a ditch sample shall be collected as directed by the supervisor and furnished to the supervisor after completion of the well as a dry hole or as a producing well. Any electrical or radioactivity logging or surveying of the well shall also be recorded and a copy furnished the supervisor within six months after completion. A detailed description of lithology shall be furnished to the supervisor within thirty days after completion or abandonment of any exploratory or wildcat well.

(2) All well histories, and records, well logs, ditch samples, results of directional surveys, and other reports submitted under this rule shall be kept confidential by the committee for a period of one year from date of filing if the well is a "wildcat" or "exploratory well" and if the operator so requests. (See RCW 78.52.260.)

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-070, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-070, filed 6/1/82; Rule 12, filed 3/23/60.]

WAC 344-12-075 Deviation tests. All wells must be drilled with due diligence to maintain a reasonably vertical well bore unless special circumstances require the bore to deviate from the vertical, in which instance permission to so deviate shall be obtained from the supervisor. The committee shall have the right to require the operator to make a directional survey of the hole, at the request of an off-set operator and at the expense of said off-set operator towards whom the well is being drilled prior to the completion of the well; and the committee shall have the right to require the operator to make a directional survey of the hole at any time, and at the expense of the operator, in order to ascertain that the well has not deviated beyond the boundaries of property on which well is located.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-075, filed 6/1/82; Rule 13, filed 3/23/60.]

WAC 344-12-078 Directional drilling. Before beginning directional drilling, other than sidetracking due to hole conditions, the operator shall file a request for same and obtain approval from the supervisor. Such request shall state name and address of operator, well name and number, drilling permit number, exact surface location of well bore and the proposed direction of deviation, proposed horizontal distance between bottom of the hole and the surface location, reason for directional drilling and a list of direct offset operators towards whom the well is being drilled, if any. Within sixty days after completion of the work an accurate and complete copy of the directional survey shall be filed with the supervisor.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-078, filed 6/1/82.]

WAC 344-12-080 Sealing off strata. (1) All underground sources of drinking water of present or potential future use for domestic, municipal, commercial, stock, or agricultural purposes shall be confined to their respective strata and shall be adequately protected.

(2) All oil, gas, and underground sources of drinking water above and below the producing horizon shall be sealed or separated in order to prevent their contents from passing into another stratum.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-080, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-080, filed 6/1/82; Rule 14, filed 3/23/60.]

WAC 344-12-087 Well casing—Cementing. (1) The owner shall case and cement all wells with a sufficient number of strings of casing in a manner necessary to:

(a) Prevent release of fluids from any stratum through the well-bore (directly or indirectly) into any waters of the state;

(b) Prevent commingling between separate hydrocarbon-bearing strata and intermingling between hydrocarbon and underground sources of drinking water, and between separate water-bearing strata;

(c) Prevent contamination of potential fresh water strata, gas, or oil zones;

(d) Support unconsolidated sediments; and

(e) Otherwise provide a means of control of the formation pressures and fluids.

The owner shall install casing of sufficient strength and size to provide optimum well control while drilling and to assure safe operations for the life of the well.

(2) Conductor casing. Conductor casing shall be set before drilling into shallow formations known to contain oil or gas, if unknown, upon encountering such formation.

(3) Surface casing. Surface casing holes shall be logged with an induction electric log, or equivalent, prior to running surface casing.

(4) Cementing of casing. Conductor and surface casing strings shall be cemented with sufficient cement to fill the annular space from the shoe to surface. Production casing shall be cemented in a manner necessary to exclude, isolate, or segregate overlying formation

fluids from the oil or gas zone and to prevent the movement of fluids into potential underground source of drinking water.

A temperature or cement bond log may be required by the supervisor if an unsatisfactory cementing job is indicated.

(5) Pressure testing. Prior to drilling out the casing shoe after cementing, all casing strings set to a depth of 500 feet (152 meters) or less except for conductor casing, shall be pressure tested to a minimum pressure of 500 psi (35 bars). Casing strings set to a depth of 500 feet (152 meters) or greater shall be pressure tested to a minimum pressure of 1,000 psi (69 bars) or 0.2 psi/ft (0.045 bars/meter) whichever is greater. Such test shall not exceed the rated working pressure of the casing or the blowout preventer stack assembly, whichever is less.

Unless otherwise provided by specific order of the supervisor for a particular well or wells or for a particular pool or parts thereof, cemented casing string shall stand under pressure until the cement has reached a compressive strength of 300 pounds per square inch (21 bars): Provided, however, That no further operation shall be commenced until the cement has been in place for at least eight hours. The term "under pressure" as used herein shall be complied with if one float valve is used or if pressure is otherwise held.

All casing pressure tests shall be recorded in the driller's log.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-087, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-087, filed 6/1/82. Formerly WAC 344-12-085.]

WAC 344-12-092 Blowout prevention. Blowout prevention and related control equipment shall be installed and properly maintained ready for use until drilling operations are completed. The blowout prevention stack and related control equipment shall have a working pressure rating higher than the maximum anticipated wellhead surface pressure. Unless otherwise specified, blowout prevention equipment shall have a hydraulic actuating system and accumulator of sufficient capacity to close all of the hydraulically operated equipment and have a minimum pressure of 1,000 psi (69 bars) remaining on the accumulator. Dual control stations shall be installed and one control panel shall be located near the driller's station. Blowout prevention assemblies involving the use of air or other gaseous fluid drilling systems shall also include a rotating head. Exceptions to the requirements of this paragraph will be considered by the supervisor for areas of known surface stability and low subsurface formation pressure.

(1) Conductor or drive casing. A diverter and vent line may be required before drilling below the conductor or drive casing. If a full opening valve is installed in the vent line, it will be hooked up to automatically open when the diverter closes.

(2) Surface, intermediate and production casing. Prior to drilling below any of these strings, blowout prevention equipment shall include a minimum of:

(a) One expansion-type preventer and accumulator or a rotating head;

(b) A remotely controlled hydraulically operated double ram blowout preventer or two single ram type preventers, one equipped with pipe rams and the other equipped with blind rams. If abnormal pres-

tures are anticipated, a third preventer, equipped with pipe rams, will be included;

(c) A drilling spool with two side outlets unless such side outlets are available in the blowout preventer stack;

(d) A fillup line;

(e) A kill line equipped with at least one valve; and

(f) A choke manifold system with suitable valves, chokes and lines. The lines to the pits or mud tanks will be securely anchored.

(3) Testing and maintenance. Ram-type blowout preventers and auxiliary equipment shall be tested to a minimum of 1,000 psi (69 bars) or to the working pressure of the casing or assembly, whichever is the lesser. Expansion-type blowout preventers shall be tested to seventy percent of the above pressure testing requirements.

(a) The blowout prevention equipment shall be pressure tested:

(i) When installed;

(ii) Prior to drilling out plugs and/or casing shoes;

(iii) Not less than once every three weeks; and

(iv) Following repairs that require disconnecting a pressure seal in the assembly.

(b) During drilling operations, blowout prevention equipment shall be actuated to test proper functioning as follows:

(i) Once each trip for blind rams and once each day for pipe rams; and

(ii) At least once each week on the drill pipe for expansion-type preventers.

All flange bolts shall be inspected at least weekly and retightened as necessary during drilling operations. Blowout prevention and auxiliary control equipment shall be cleaned, inspected and repaired, if necessary, prior to installation to assure proper functioning. Blowout prevention controls shall be plainly labeled. A blowout prevention drill shall be conducted weekly for each drilling crew. All blowout prevention tests and crew drills shall be recorded on the driller's log.

(4) Related well control equipment. A full opening drill string safety valve in the open position shall be maintained on the rig floor at all times while drilling operations are being conducted. An upper and lower full-opening kelly cock shall be installed above and below the kelly.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-092, filed 6/1/82. Formerly WAC 344-12-090.]

WAC 344-12-095 Fire hazards. Any rubbish or debris that might constitute a fire hazard in the operation of the well, tanks, separator, or other equipment shall be removed to a distance of at least 100 feet (30 meters) from the well location, tanks, and separators.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-095, filed 6/1/82; Rule 17, filed 3/23/60.]

WAC 344-12-098 Drilling fluid. The properties, use, and testing of drilling fluids and the conduct of related drilling procedures shall be such as are necessary to prevent the blowout of any well.

Sufficient drilling fluid materials to insure well control shall be maintained in the field area readily accessible for use at all times.

(1) Drilling fluid control. Before pulling drill pipe, the drilling fluid shall be properly conditioned or displaced. The hole shall be kept reasonably full at all times. Proper techniques shall be utilized when necessary to maintain mud characteristics for well control and hole conditioning. The conditions herein shall not apply when drilling with air or aerated fluids.

(2) Drilling fluid testing. Mud testing and treatment consistent with good operating practice shall be performed daily or more frequently as conditions warrant. The following drilling fluid system monitoring or recording devices shall be installed and operated continuously during drilling operations, with mud, occurring below the shoe of the conductor casing:

(a) High-low level mud pit indicator including a visual and audio-warning device, if applicable.

(b) A hydrogen sulfide indicator and alarm shall be installed in areas suspected or known by the supervisor to contain hydrogen sulfide gas which may reach levels considered to be dangerous to the health and safety of personnel in the area.

(c) Degassers shall be required if applicable, and below 7,500 feet (2286 meters) or in areas of known high pressure desilters and desanders if required for solids control.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-098, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-098, filed 6/1/82.]

WAC 344-12-102 Well logging. All wells shall be logged with an induction electric log, radiation log, or equivalent from total depth to the shoe of the conductor casing. The supervisor may grant an exception to this rule in field wells when well conditions make it impractical or impossible to meet this requirement.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-102, filed 6/1/82.]

WAC 344-12-107 Removal of casing. (1) No person shall remove casing or any portion thereof from any well without first obtaining prior written approval from the supervisor. In a request to remove casing, the applicant must describe the condition of the well, the proposed casing to be removed, all casing in the hole, location of existing and proposed cement plugs, and perforations.

(2) Approval to recover casing will be given in the abandonment of wells where subsurface plugging can be done to the satisfaction of the supervisor.

(3) The hole shall be full of fluid prior to the detonation of any explosives in the hole. Such explosives shall be utilized only by a licensed handler with the required permits.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-107, filed 6/1/82.]

WAC 344-12-112 Agents to have access to all wells, well records, witness tests or well production. All operators of oil and gas exploratory and producing wells are required to permit the agents of the supervisor and the committee to witness all tests that may be required by the supervisor on any and all wells. The agents of the supervisor shall have access to all well records, and shall be permitted to come upon any lease or property to inspect any and all wells and to witness gauging of production therefrom at all times. All such information, at the moment obtained, shall be presumed to have been required, filed, and requested to be kept confidential within the meaning of RCW 78.52.260, and shall by all such persons so obtaining such information, be reported only to the supervisor and the committee, and shall be kept confidential in the same manner as provided in RCW 78.52.260 and WAC 344-12-070 (2).

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-112, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-112, filed 6/1/82. Formerly WAC 344-12-120.]

WAC 344-12-116 Sump pits. (1) An earthen pit, or sump used for the handling, storage, or disposal of any deleterious substance produced, obtained, or used in conjunction with drilling or operation of wells, shall be constructed of, or sealed with, an impervious material, and shall be used and operated at all times so as to prevent any escape of any deleterious substances.

(2) Every earthen pit, or sump shall be emptied and leveled within three months after drilling operations cease. For good cause shown by the operator, the supervisor may extend the period for emptying and leveling, but not to exceed six months.

(3) Except as to surface runoff from surface facilities, no earthen pit or sump shall be constructed or maintained so as to receive surface runoff and such pit shall be maintained at all times to provide reasonable safe fluid level control.

(4) An earthen pit or sump, at the discretion of the supervisor shall be flagged, screened, or otherwise protected from intrusions by wildlife before drilling operations begin and be maintained after operations cease, until such pits or sumps are reclaimed.

(5) No pit or sump shall be used for the ultimate disposal of salt water. Salt water and oil shall be periodically drained or removed, and properly disposed of, in accordance with methods and at locations approved by the department of ecology, from any pit or sump that is retained so the pit is kept reasonably free of salt water and oil.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-116, filed 6/1/82.]

WAC 344-12-125 Notice of intention to abandon and plug (Form-3).

(1) The owner or operator shall not permit any well drilled for oil, gas, salt-water disposal, injection or any other purpose in connection with the exploration or production of oil and gas, to remain unplugged, except as otherwise provided in WAC 344-12-140, after such well is no longer to be used for the purpose for which it was drilled or converted.

(2) Before any work is commenced to abandon any well drilled for oil or gas, including any well drilled below the underground source of drinking water, the owner or operator thereof shall, prior to beginning operations of plugging the well, give notice to the supervisor or his representative of his intention to abandon such well, such notice shall be written, on Form-3 (Notice of intention to abandon and plug well), except that it shall be permissible to give oral notice followed within twenty-four hours by written confirmation on Form-3. Upon receipt of such notice, the supervisor or his duly authorized representative may elect to be present at the time indicated in such notice, to witness the plugging of the well.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-125, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-125, filed 6/1/82; Rule 23, filed 3/23/60.]

WAC 344-12-131 Procedure for plugging. Each abandoned well drilled for the discovery of oil or gas or for any other purpose related to the exploration including seismic and core holes or production of oil and gas shall be plugged by or on behalf of the owner, operator, or producer who is in charge of the well or wells and responsible therefor. In general, cement plugs will be placed across specified intervals to protect oil and gas zones, to prevent degradation of potentially usable waters, and to protect surface conditions. Subject to approval of the supervisor, cement may be mixed with or replaced by other substances with adequate physical properties. The owner shall submit the proposed method and procedure for plugging to the supervisor on Form-3 (Notice of intention to abandon and plug well). Unless otherwise approved by the supervisor the method and procedure shall be as follows:

(1) Hole fluid. Drilling fluid having the proper weight and consistency to prevent movement of other fluids into the wellbore shall be placed in all intervals not plugged with cement, and shall be surface poured into all open annuli where required.

(2) Plugging by bailer. Placing of a cement plug by bailer shall not be permitted at a depth greater than 3,000 feet (914 meters). Water is the only permissible hole fluid in which a cement plug shall be placed by bailer.

(3) Surface pours. A surface cement-pour shall be permitted in an empty hole with a diameter of not less than 5 inches (12.7 centimeters). Depth limitations shall be determined on an individual well basis by the supervisor.

(4) Blowout prevention equipment. Blowout prevention equipment may be required during plugging and abandonment operations. Any blowout prevention equipment and inspection requirements deemed necessary by the supervisor shall appear on the approval issued by the supervisor.

(5) Junk in hole. Diligent effort shall be made to recover junk when such junk may prevent proper abandonment either in open hole or inside casing. In the event that junk cannot be removed from the hole and freshwater-saltwater contacts or oil or gas zones penetrated below cannot therefore be properly abandoned, cement shall be down-squeezed through or past the junk or a 100-foot (30-meter) cement plug shall be placed on top of the junk.

(6) A cement plug not less than 25 feet (7.6 meters) shall be placed in the hole and all annuli at the surface. All well casing shall be cut off at least 5 feet (1.5 meters) below the surface of the ground.

(7) Open hole.

(a) A cement plug shall be placed to extend from the total depth or at least 100 feet (30 meters) below the bottom of each oil or gas zone, whichever is less, to at least 100 feet (30 meters) above the top of each zone.

(b) A minimum 200-foot (61-meter) cement plug shall be placed across all underground source of drinking water-saltwater interfaces.

(c) An interface plug may be placed wholly within a thick shale if such shale separates the freshwater sands from the brackish or saltwater sands.

(d) The hole may be filled between plugs up to the base of the surface string, if this reaches below the freshwater zone, with approved heavy mud.

(8) Cased hole.

(a) All perforations shall be plugged with cement, and the plug shall extend 100 feet (30 meters) above the top of a landed liner, the uppermost perforations, the casing cementing point, or water shut-off holes, whichever is highest.

(b) If there is cement behind the casing across the underground source of drinking water-saltwater interface, a 100-foot (30-meter) cement plug shall be placed inside the casing across the interface.

(c) If the top of the cement behind the casing is below the top of the highest saltwater sands, squeeze-cementing shall be required through perforations to protect the underground source of drinking water. In addition, a 100-foot (30-meter) cement plug shall be placed inside the casing across the underground source of drinking water-saltwater interface. Notwithstanding other provisions of this section, the supervisor may approve a cavity shot followed by cementing operations at the base of the underground source of drinking water sands. The cavity shall be filled with cement and capped with a cement plug extending 100 feet (30 meters) above the cavity shot.

(9) Special requirements.

(a) Where geologic or groundwater conditions dictate, special plugging procedures shall be required to prevent contamination of potentially usable waters by downward percolation of poor quality waters, and to separate water zones of varying quality, or varying hydrostatic pressure, and to isolate dry permeable strata that are brought into hydraulic continuity with groundwater aquifers.

(b) The supervisor may set forth other plugging and abandonment requirements or may establish field rules for the plugging and abandonment of wells. Such cases include, but are limited to:

(i) The plugging of a high-pressure saltwater zone.

(ii) Perforating and squeeze-cementing previously uncemented casing within and above a hydrocarbon zone.

(10) In all holes open below the casing shoe, a cement plug shall extend from at least 50 feet (15 meters) below to at least 50 feet (15 meters) above the shoe of any cemented casing. If the hole cannot be cleaned out to 50 feet (15 meters) below the shoe, a 100-foot (30-meter) cement plug shall be placed as deep as possible.

(11) A steel plate at least one-quarter inch (0.64 centimeter) thick shall be welded to the top of the surface string of casing. The steel plate shall bear the drilling permit number and date of abandonment.

(12) Within thirty days after plugging of any well, the owner, operator, or producer responsible therefor who plugged or caused to be plugged the well shall file with the supervisor an affidavit on Form-4 (report on results of plugging well) setting forth in detail the method used in plugging the well.

(13) Inspection of plugging and abandonment operations. All plugging and abandonment operations shall be witnessed and approved as deemed necessary by the supervisor.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-131, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-131, filed 6/1/82. Formerly WAC 344-12-130.]

WAC 344-12-133 Unlawful abandonment. A well shall be deemed unlawfully abandoned if not plugged and the lands involved are not reclaimed in compliance with the rules and regulations or orders of the supervisor or when operations on or at any well shall have ceased for a period of six months or more. If a determination of unlawful abandonment is made by the supervisor, the supervisor shall inform the owner, operator, or producer in writing directing immediate compliance with proper abandonment procedures. Failure to comply shall be cause for the supervisor to order proper abandonment utilizing the drilling and production bond on file with the supervisor. For good cause shown by the operator, the supervisor may extend the period for plugging and reclamation.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-133, filed 6/1/82.]

WAC 344-12-140 Wells used for underground source of drinking water. When the well to be plugged may safely be used as an underground source of drinking water well and such utilization is desired by the landowner and is authorized by the operator, the cement plug normally required at the top of the surface casing may be waived, and the well need not be filled above the required sealing plug set below underground source of drinking water: Provided, That written authority for such conversion is supplied by the landowner and authorization is obtained by the landowner from the state department of ecology and filed with the supervisor. Approval by the supervisor of the plugging accomplished or notice from the department of ecology of approval of the landowner's authorization as provided herein shall relieve the operator of further responsibility under the Oil and Gas Conservation Act and the supervisor shall release the bond once a water well has been satisfactorily completed.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-140, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-140, filed 6/1/82; Rule 26, filed 3/23/60.]

WAC 344-12-145 Reclamation. The supervisor shall establish guidelines for the reclamation of land impacted by oil and gas drilling and production activities.

The owner, operator, or producer of the well or wells shall develop a reclamation plan for the area disturbed in site preparation, drilling, completing, or producing a well or wells, and submit the reclamation plan to the supervisor for approval. The owner, operator, or producer shall, before the reclamation plan is implemented, consult affected state agencies, including the department of wildlife, before submitting the reclamation plan to the supervisor. Reclamation shall be accomplished in accordance with the reclamation plan and the following:

(1) Within three months after the completion or abandonment of a well the operator shall fill all pits containing mud, cuttings, salt water and oil that are not needed for production purposes, or are not required or allowed by state or federal law or rule or regulation, and remove all concrete bases, drilling supplies, and drilling equipment. Within such period the operator shall grade or terrace, and plant, seed, or sod the area disturbed, that is not required in production of the well, to bind the soil and prevent substantial erosion and sedimentation.

(2) Within three months after the plugging of a well, the operator shall remove all production and storage structures, supplies and equipment, and any oil, saltwater and debris and fill any remaining excavations. Within such period the operator shall grade or terrace, and plant, seed, or sod the area disturbed to bind the soil and prevent substantial erosion and sedimentation.

(3) Groundwater and soil resources on and adjacent to seismic surveys shall be provided the greatest practical protection on a continuing basis. The minimum reclamation program for seismic surveys shall provide for:

(a) Successful revegetation of disturbed ground to prevent substantial erosion and sedimentation within three months of cessation of operations;

(b) Removal of refuse and discarded equipment to a licensed landfill;

(c) Plugging of all shot holes that encountered water upon completion of each day's work with a nontoxic plug-mud or cement;

(d) Regrading, when appropriate, of areas where disruption of topography has occurred, such as deep tire tracks, such that reclaimed topography conforms with adjacent, undisturbed topography;

(e) Installation of erosion elimination devices where drainage or soil conditions indicate erosion may occur.

The supervisor may, upon written application by an operator, find reasonable cause to extend the period in which reclamation shall be completed, but not to exceed one year.

[Statutory Authority: RCW 78.52.120, 78.52.155, 78.52.040 and 78.52.050. WSR 88-14-026 (Order 11), § 344-12-145, filed 6/29/88. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-145, filed 6/1/82.]

WAC 344-12-150 Permit cancellation—Failure to drill. A permit will be cancelled if drilling operations have not commenced within twelve months of date of issuance of the permit. Such cancellation will take effect thirty days after written notice has been sent to the operator by the supervisor. The supervisor may, for good cause, grant a reasonable extension, not to exceed six months.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-150, filed 6/1/82.]

WAC 344-12-155 Permit suspension. Drilling operations in violation of any applicable rules of law, rules or regulations, permit conditions, or any order of the committee shall be subject to suspension by order of the supervisor. A suspension shall remain in effect until the violations are corrected to the satisfaction of the supervisor. Any person adversely affected by a suspension order may apply for a hearing before the committee as provided in RCW 78.52.470.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-155, filed 6/1/82.]

PRODUCTION

WAC 344-12-200 Well-head fittings. Christmas-tree fittings or well-head connections shall have a working pressure in keeping with the expected pressure of the well.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-200, filed 6/1/82.]

WAC 344-12-205 Tubing. Each flowing well shall be produced through tubing and shall be equipped with a master valve; however, a multiple completion is permissible when the production from each zone is kept separate.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-205, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-205, filed 6/1/82.]

WAC 344-12-210 Separators. When good operating practice so requires, all flowing wells must be produced through suitable oil and gas separators or treaters.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-210, filed 6/1/82.]

WAC 344-12-215 Chokes. Each flowing well shall be equipped with an adequate choke or bean to control properly the flowing therefrom.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-215, filed 6/1/82.]

WAC 344-12-225 Disposal of salt water or brine. Disposal of salt water or other water containing minerals in such amount as to be unfit for domestic, stock, irrigation, or other general uses must be

by means or methods specified and approved by the state department of ecology.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-225, filed 6/1/82.]

WAC 344-12-230 Notification of fire, breaks, leaks, or blowouts.

All persons controlling or operating any oil and gas wells, or receiving tanks, storage tanks, or receiving and storage receptacles into which crude oil is produced, received, or stored, shall make all reasonable efforts to immediately notify the supervisor by telephone followed by a letter giving full details concerning all fires which occur at such oil or gas wells or tanks or receptacles on their property, and all such persons shall make all reasonable efforts to immediately report all tanks or receptacles struck by lightning and any other fire which destroys oil or gas, and shall make all reasonable efforts to immediately report any breaks, blowouts, or leaks in or from tanks or receptacles and gathering pipe lines from which oil or gas is escaping or has escaped. In all such reports of fires, breaks, leaks, or escapes, or other accidents of this nature, the location of the well, tank receptacle, or line break shall be given by section, township, range, and property so that the exact location thereof can be readily located on the ground. Such report shall likewise specify what steps have been taken or are in progress to remedy the situation reported and shall detail the quantity of oil or gas lost, destroyed, or permitted to escape. In case any tank or receptacle is permitted to run over, the escape thus occurring shall be reported as in the case of a leak. The report hereby required as to oil losses shall be necessary only in case such oil loss exceeds ten barrels in the aggregate. Compliance with this section does not relieve such persons from taking appropriate action and reporting oil or chemical spills or leaks as required by chapter 90.48 RCW and other applicable state and federal laws.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-230, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-230, filed 6/1/82.]

WAC 344-12-235 Producing from different strata through the same casing string. No well shall be permitted to produce either oil or gas from different strata through the same string of casing without first receiving written permission from the committee.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-235, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-235, filed 6/1/82.]

WAC 344-12-245 Determining and naming pools. Wells shall be classified as to the pool from which they produce, and pools shall be determined by the committee and named by the supervisor: Provided, That in the event any person is dissatisfied with any such classification or determination, an application may be made to the committee for

such reclassification or determination as the applicant deems proper, and the committee will hear and determine the same.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-245, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-245, filed 6/1/82.]

WAC 344-12-250 Report of production. The producer or operator of each and every well or proration unit in all pools shall each month submit to the supervisor a sworn statement showing the amount of production made by each well and by each such proration unit upon forms furnished therefor.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-250, filed 6/1/82.]

WAC 344-12-255 Reservoir surveys. By special order of the supervisor periodic surveys shall be made of the reservoirs in this state containing oil and gas. The condition of the reservoirs containing oil and gas and the practices and methods employed by the operators shall be investigated. The volume and source of crude oil and natural gas; the reservoir pressure of the reservoir as an average; the areas of regional or differential pressure; stabilized gas-oil ratios, and the producing characteristics of the field as a whole and the individual wells within the field shall be specifically included.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-255, filed 6/1/82.]

WAC 344-12-260 Disposing of unwanted fluids encountered in oil and gas drilling and production. Prior to disposing of unwanted fluids the operator shall identify geological formations to be used, maximum bottom hole pressure in pounds per square inch or bars and maximum rate of injection in barrels of liquid per day or cubic feet of gas per day, detailed identification of materials to be injected, including additives, filters, if any, the entire casing and cementing record of the wells to be used for injection, packers, and any special downhole equipment, certification that the mechanical integrity of the well has been tested, and facilities or systems to protect the integrity of geological target formation or to prevent fracturing of the confining strata. Prior to injection, the operator shall notify the supervisor. On acceptance of a completed permit application by the supervisor, the Washington department of ecology shall review, evaluate, and act upon the application in accordance with the rules of WAC 173-218-060. The applicant shall have approval to operate when the Washington department of ecology has approved the permit.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-260, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-260, filed 6/1/82.]

WAC 344-12-262 Underground injection control. Injection of any fluids to enhance recovery of oil or gas or for storage of liquid hydrocarbons is prohibited until such time as an application is made to do so. At that time the oil and gas conservation committee will promulgate rules and regulations that will conform with the underground injection control (UIC) program, chapter 173-218 WAC, which implement portions of the Safe Drinking Water Act (Public Law 93-523 as amended by Public Law 96-502).

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-262, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-262, filed 6/1/82.]

WAC 344-12-265 Gas well open flow potential test. Initial potential tests may be reported on forms furnished by the supervisor using the "one-point" method with a 45 degree slope for the plot. After a market is obtained and a pipe line is connected to the well, upon request of the supervisor, an operator shall make a "four-point" potential test and report on forms furnished by the supervisor. To establish comparable open flow capacity the "four-point" back pressure flows shall be taken in sequence from low to high flow. In the event the supervisor approves an alternate method of testing, all wells producing from a pool shall be tested in a uniform and comparable manner. In a like manner all natural gas wells hereafter completed shall be tested and the potential test reported. Where it has been determined that a natural gas well in any pool has a potential of 400,000 cubic feet per day or less, further potential tests shall not be required provided the operator periodically reports the shut-in pressure of the well.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-265, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-265, filed 6/1/82.]

WAC 344-12-270 Notice of tests. Open-flow and pressure tests of gas wells may be witnessed or observed by a representative of any producer in the field. The supervisor and the owners of the adjoining or offset leases must be notified by the owner of the well on which the test is to be taken, stating the time when such test will commence provided that such notification will be made at least seventy-two hours in advance of such test.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-270, filed 6/1/82.]

WAC 344-12-275 Gas to be metered. (1) Meters. All gas when produced or sold shall be metered with an approved meter of sufficient capacity, provided that gas may be metered from a lease or unitized property as a whole if it is shown that ratable taking can be maintained.

(2) Meter charts and records. Purchasers shall keep, in a permanent file, for a period of at least two years, meter charts and re-

cords on gas purchased, and such information shall be made available to the supervisor.

(3) Bypasses. Bypasses shall not be connected around meters in such manner as to permit the improper taking of gas.

[Statutory Authority: RCW 78.52.050. WSR 85-03-018 (Order 6, Resolution No. 10), § 344-12-275, filed 1/8/85. Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-275, filed 6/1/82.]

WAC 344-12-280 Gas-oil ratio. No well shall be permitted to produce gas in excess of the maximum ratio determined for a pool unless all gas produced in excess thereof is returned to the pool from which it was produced.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-280, filed 6/1/82.]

WAC 344-12-290 Gas-oil ratio surveys and reports. Gas-oil ratios and surveys shall be taken in the manner prescribed by the supervisor for individual fields which have established gas-oil ratio limits and in accordance with the rules prescribed for each individual pool.

(1) Flowing wells intermittently (stop-cocked) produced. In computing the operating gas-oil ratio, the total volume of gas and the total barrels of oil that are produced in order to obtain the daily oil allowable must be used regardless of the flowing time in the 24-hour period.

(2) Gas lift or jet wells. The total volume of gas to be used in computing the operating gas-oil ratio is the total output volume minus the total input volume.

(3) Pumping wells. In computing the gas-oil ratio, all gas withdrawn from the casing in an attempt to maintain a fluid seal, or for any other reason, must be added to gas produced through tubing.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-290, filed 6/1/82.]

WAC 344-12-295 Prior approval—Storage and pipelines. An operator shall submit a request and plans for approval to the supervisor prior to constructing any storage facilities, gathering lines, or pipelines not covered by chapter 80.50 RCW.

[Statutory Authority: RCW 78.52.050 and chapter 78.52 RCW. WSR 82-12-052 (Order 3, Resolution No. 7), § 344-12-295, filed 6/1/82.]