- 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 pressures 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 pre-

vention 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.]