



ADMINISTRATIVE RULES OF MONTANA



36.22.1014 BLOWOUT PREVENTION AND WELL CONTROL EQUIPMENT

- (1) Unless otherwise provided for by the permit to drill issued under ARM 36.22.601 and ARM 36.22.602, or by board order issued after public notice and hearing, the owner must provide blowout preventers and well control equipment on all wells in accordance with the following rules.
 - (a) For wells in areas of abnormal or unknown formation pressures, proper blowout preventers must consist of hydraulically-operated single or double ram-type preventers with at least one pipe ram and one blind ram, and an annular-type preventer. Additional equipment must include upper and lower kelly cocks; mud pit level indicators with alarms and/or flow sensors and alarms; and choke manifolds, kill lines, and other well control equipment sufficient to handle all pressure kicks. Accumulators must maintain a pressure capacity reserve at all times to provide for the operation of the hydraulic preventers and valves with no outside source of pressure.
 - (b) For development wells and in all areas of known formation pressures, blowout prevention and well control equipment must be installed.
 - (c) The owner must maintain all blowout prevention and well control equipment in good working order.
- (2) Drilling spools for blowout preventer stacks must meet the following minimum specifications:
 - (a) for working pressures rated at 3,000 or 5,000 pounds per square inch (psi) , flanged, studded, or clamped side outlets of no less than 2 inches nominal diameter.
 - (b) for working pressures rated at 10,000 and 15,000 psi, one 2-inch side outlet and one 3-inch side outlet.
- (3) The rated working pressure of all blowout preventers and well control equipment must equal or exceed the maximum anticipated pressure to be contained at the surface.
- (4) Wellhead outlets must not be used for choke or kill lines in areas of abnormal or unknown formation pressures. Such outlets may be employed for auxiliary or back-up connections to be used only if the primary control system fails.
- (5) The owner or operator must test blowout prevention and well control equipment according to the following standards.
 - (a) Ram-type blowout preventers and well control equipment, including casing, must receive initial pressure testing to the least of the manufacturer's fullworking pressure rating of the equipment, 50 percent of the minimum internal yield pressure of any casing subject to test, or one psi per foot of the last casing string depth. Annular-type blowout preventers must

receive initial pressure testing in conformance with the manufacturer's published recommendations.

- (b) If, for any reason, a pressure seal is disassembled, the owner or operator must test the full working pressure of that seal before resuming drilling operations. However, if the affected seal is an integral part of the blowout preventer stack, the owner or operator may obtain permission from a board representative to proceed without testing the seal.
 - (c) In addition to the initial pressure tests, the owner or operator must check ram- and annular-type preventers for physical operation each trip but not more than once each twenty-four (24) hour period.
 - (d) All blowout preventer components, with the exception of annular preventers, must be tested monthly to the least of 50 percent of the manufacturer's rated pressure, the maximum anticipated pressure to be contained at the surface, one psi per foot of the last casing string depth, or 70 percent of the minimum internal yield pressure of any casing subject to test.
 - (e) The owner or operator must note all tests of blowout preventer and well control equipment on the driller's log, which must be made available to the board upon request. The board may require the operator or the drilling contractor to provide a signed and sworn affidavit attesting to the sufficiency of the blowout prevention equipment and any testing of such equipment.
- (6) The owner or operator must submit a schematic diagram of the proposed blowout prevention and well control equipment with the application for permit to drill.
- (7) In areas where hydrogen sulfide or sour gas may be encountered, the following additional equipment and precautions are required:
- (a) a blowout preventer closing unit located in a safe place easily accessible to rig personnel.
 - (b) a remote auxiliary choke control panel to operate the choke manifold set up at a safe distance upwind from the rig floor.
 - (c) a remote kill line sufficient to permit use of an auxiliary high-pressure pump.
 - (d) the placement of the drilling fluid inlet line to the degasser close to the drilling fluid discharge line from the mud/gas separator.
 - (e) provisions to flare toxic gases with an adequate degasser, discharge lines, check valves, a vertical flare stack, and a gas ignition system.
 - (f) provisions for personnel training; personnel protective equipment including sensors, alarms, and breathing equipment; warning signs; and wind direction flags to safeguard against injury or death.

Authorizing statute(s): Sec. 82-11-111, MCA

Implementing statute(s): Sec. 82-11-121, 82-11-123 and Sec. 82-11-124, MCA

History: NEW, 1992 MAR p. 654, Eff. 4/1/92.