The blowout preventer shall be nipped up as needed and a spare set of drill pipe rams shall be on location. The ram preventers may be two singles or a double type. If full opening flanged outlets are on the side of the rams, then they may be used for connecting the choke line (4") and the kill line (2"). A set of spare flange bolts and nuts will be on location at all times for all flanges used.

The substructure height shall be sufficient to install a rotating blowout preventer.

The accumulator shall be equipped with two pumps. One shall be powered with air, the other will be powered with electricity. Each pump shall be capable of fluid charging the total accumulator from precharge pressure to rated pressure within 2 minutes. The minimum nitrogen precharge pressure shall be 750 psi. The pressurized fluid volume stored in the accumulators shall be sufficient to close all pressure operated devices simultaneously within 19 seconds, after closure, the remaining accumulator pressure shall be not less than 1500 psi with the remaining accumulator fluid volume at lease 50 percent of the original.

A remote closing manifold located on the rig floor shall be operational. The closing manifold and remote shall have a separate control for each pressure-operated device. Controls are to be labeled as to device and opened or closed. All controls are to be left in the open position when not in use. A pressure reducer and regulator will be provided for operating the annular preventer. All lines from the accumulator to the preventer will be rated to the same pressure rating of the preventer. The accumulator shall be placed away from the rig floor, the distance is specified in MRDC. Hydraulic fluid must meet RP-53 specifications.

The choke manifold and all lines are to be supported by metal stands and securely anchored. The choke flow line, relief lines and choke lines shall be as straight as possible and without sharp turns.

The choke flow line valves and kill line valves and all ram preventers must be equipped with stem extension, universal joints if needed, and hand wheels which extend beyond the edge of the substructure constructed to facilitate easy operation from outside the substructure. All other valves shall be equipped with handles.