



The electric, mechanical and pneumatically actuated shut-off devices shall have a separate control for each pressure-regulated device. Controls are to be labelled, with control handles indicating open and closed position. The electric, mechanical and pneumatically actuated shut-off devices shall be provided for opening the hydraulic powertrain. When required, a bypass pressure reducer shall be available to limit operating fluid pressures to safe preventive. A pressure-reducing and regulating valve, an equivalent or better, is to be used as the fluid to operate the hydraulic equipment.

The choke manifold, when flow line, relief line, and choke lines are to be supported by metal stands and adequately anchored. The choke flow line, relief line, and choke line shall be constructed as straight as possible and without "knee bends." They and safe access is to be maintained in the choke manifold. If deemed necessary, walkways and runways shall be erected in and around the choke manifold. All valves are to be selected for operation in the presence of oil, gas, and drilling fluid. The choke flow line valves and relief line valves connected to the drilling, speed, and kill man type pressure must be equipped with stem extensions, universal joints if needed, and hand wheels which are to extend beyond the edge of the derrick substructure. All other valves are to be equipped with handles.

* To include district floor mounted displays