Ocean Energy Bureau, Interior

§ 250.514 Well-control fluids, equipment, and operations.

(a) Well-control fluids, equipment, and operations shall be designed, utilized, maintained, and/or tested as necessary to control the well in foreseeable conditions and circumstances, including subfreezing conditions. The well shall be continuously monitored during well-completion operations and shall not be left unattended at any time unless the well is shut in and secured.

(b) The following well-control-fluid equipment shall be installed, maintained, and utilized:

(1) A fill-up line above the uppermost BOP;

(2) A well-control, fluid-volume measuring device for determining fluid volumes when filling the hole on trips;

(3) A recording mud-pit-level indicator to determine mud-pit-volume gains and losses. This indicator shall include both a visual and an audible warning device.

(c) When coming out of the hole with drill pipe, the annulus shall be filled with well-control fluid before the change in such fluid level decreases the hydrostatic pressure 75 pounds per square inch (psi) or every five stands of drill pipe, whichever gives a lower decrease in hydrostatic pressure. The number of stands of drill pipe and drill collars that may be pulled prior to filling the hole and the equivalent well-control fluid volume shall be calculated and posted near the operator’s station. A mechanical, volumetric, or electronic device for measuring the amount of well-control fluid required to fill the hole shall be utilized.

§ 250.515 Blowout prevention equipment.

(a) The BOP system and system components and related well-control equipment shall be designed, used, maintained, and tested in a manner necessary to assure well control in foreseeable conditions and circumstances, including subfreezing conditions. The working pressure rating of the BOP system and BOP system components shall exceed the expected surface pressure to which they may be subjected. If the expected surface pressure exceeds the rated working pressure of the annular preventer, the lessee shall submit with Form MMS–124 or Form MMS–123, as appropriate, a well-control procedure that indicates how the annular preventer will be utilized, and the pressure limitations that will be applied during each mode of pressure control.

(b) The minimum BOP system for well-completion operations must meet the appropriate standards from the following table:

<table>
<thead>
<tr>
<th>When</th>
<th>The minimum BOP stack must include</th>
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<tbody>
<tr>
<td>(1) The expected pressure is less than 5,000 psi,</td>
<td>Three BOPs consisting of an annular, one set of pipe rams, and one set of blind-shear rams.</td>
</tr>
<tr>
<td>(2) The expected pressure is 5,000 psi or greater or you use multiple tubing strings,</td>
<td>Four BOPs consisting of an annular, two sets of pipe rams, and one set of blind-shear rams.</td>
</tr>
<tr>
<td>(3) You handle multiple tubing strings simultaneously,</td>
<td>Four BOPs consisting of an annular, one set of pipe rams, one set of dual pipe rams, and one set of blind-shear rams.</td>
</tr>
<tr>
<td>(4) You use a tapered drill string,</td>
<td>At least one set of pipe rams that are capable of sealing around each size of drill string. If the expected pressure is greater than 5,000 psi, then you must have at least two sets of pipe rams that are capable of sealing around the larger size drill string. You may substitute one set of variable bore rams for two sets of pipe rams.</td>
</tr>
<tr>
<td>(5) You use a subsea BOP stack</td>
<td>The requirements in §250.442(a) of this part.</td>
</tr>
</tbody>
</table>
§ 250.516吹出防止器システムテスト、検査、および維持管理。

（c）BOPシステムの完結作業には、以下のものが必要です。

1. ハイドロピーキングシステムで、必要な容量が2倍の圧力でBOP装置を閉じることを確認する。
2. 肉抜きによる力源から、必要な力源がBOPシステムを閉じることを確認する。BOPシステムの力源は、解体圧力を確保するための力源が必要です。
3. メカニズムの装着が必要です。
4. リモート制御装置が、別途必要です。
5. 压力測定が必要です。

（d）内BOPまたはスプリングロードバックプレースメントおよび完全開閉の工作機械安全スプリングロードバックプレースメントが必要です。

（e）サブシースBOPシステムは、完結作業に必要なことを確認する。

§ 250.516 Blowout preventer system tests, inspections, and maintenance.

(a) BOP pressure testing timeframes.
You must pressure test your BOP system:
1. When installed; and
2. Before 14 days have elapsed since your last BOP pressure test. You must begin to test your BOP system before 12 a.m. (midnight) on the 14th day following the conclusion of the previous test. However, the District Manager may require testing every 7 days if conditions or BOP performance warrant.

(b) BOP test pressures. When you test the BOP system, you must conduct a low pressure and a high pressure test for each BOP component. Each individual pressure test must hold pressure long enough to demonstrate that the tested component(s) holds the required pressure. The District Manager may approve or require other test pressures or practices. Required test pressures are as follows:
1. All low pressure tests must be between 200 and 300 psi. Any initial pressure above 300 psi must be bled back to a pressure between 200 and 300 psi before starting the test. If the initial pressure exceeds 500 psi, you must bleed back to zero and reinitiate the test. You must conduct the low pressure test before the high pressure test.
2. For ram-type BOP’s, choke manifold, and other BOP equipment, the high pressure test must equal the rated working pressure of the equipment.
3. For annular-type BOP’s, the high pressure test must equal 70 percent of the rated working pressure of the equipment.

(c) Duration of pressure test. Each test must hold the required pressure for 5 minutes.
1. For surface BOP systems and surface equipment of a subsea BOP system, a 3-minute test duration is acceptable if you record your test pressures on the outermost half of a 4-hour