	Proposed Regulation Reference(2)	Section title(3)
Use(1)	Proposed Regulation Reference(2)	Section title(3)
	Preamble	**Safe Drilling Practices**
	Preamble	**BOP Testing**
	Preamble	**Subpart D Oil and Gas Drilling Operations (General Requirements)**
	§250.428(k)	**What must I do in certain cementing and casing situations?**

	Proposed Regulation Reference(2)	Section title(3)
	§250.428(k)	**What must I do in certain cementing and casing situations?**
	§250.428(k)	**What must I do in certain cementing and casing situations?**
	§250.428(k)	**What must I do in certain cementing and casing situations?**
	§250.619(e)(2)	**Tubing and wellhead equipment.**

	Proposed Regulation Reference(2)	Section title(3)
	§250.730(a)	**What are the general requirements for BOP systems and system components?**
	§250.730(a)	**What are the general requirements for BOP systems and system components?**
	§250.730(a)	**What are the general requirements for BOP systems and system components?**
	§250.730(a)(3)	**What are the general requirements for BOP systems and system components?**
	§250.730(b)	**What are the general requirements for BOP systems and system components?**

	Proposed Regulation Reference(2)	Section title(3)
	§250.731(a)	**What information must I submit for BOP systems and system components?**
	§250.731(c)	**What information must I submit for BOP systems and system components?**
	§250.732(d)	

	Proposed Regulation Reference(2)	Section title(3)
	§250.734(a)(1)	**What are the requirements for a subsea BOP system?**
	§250.734(a)(1)	**What are the requirements for a subsea BOP system?**
	§250.734(a)(3)	**What are the requirements for a subsea BOP system?**

	Proposed Regulation Reference(2)	Section title(3)
	§250.734(a)(4)	**What are the requirements for a subsea BOP system?**
	§250.734(a)(4)	**What are the requirements for a subsea BOP system?**
	§250.734(a)(6)	**What are the requirements for a subsea BOP system?**

	Proposed Regulation Reference(2)	Section title(3)
	§250.734(a)(6)	**What are the requirements for a subsea BOP system?**
	§250.734(a)(7)	**What are the requirements for a subsea BOP system?**
	§250.734(a)(8)	**What are the requirements for a subsea BOP system?**
	§250.734(a)(9)	**What are the requirements for a subsea BOP system?**

	Proposed Regulation Reference(2)	Section title(3)
	§250.734(b)	**What are the requirements for a subsea BOP system?**
	§250.734(c)	**What are the requirements for a subsea BOP system?**
	§250.735(a)	**What associated systems and related equipment must all BOP systems include?**
	§250.735(a)	**What associated systems and related equipment must all BOP systems include?**
	§250.735(b)	**What associated systems and related equipment must all BOP systems include?**
	§250.735(h)	**What associated systems and related equipment must all BOP systems include?**

	Proposed Regulation Reference(2)	Section title(3)
	§250.736(d)	**What are the requirements for choke manifolds, kelly valves, inside BOPs, and drill string safety valves?**
	§250.736(d)	**What are the requirements for choke manifolds, kelly valves, inside BOPs, and drill string safety valves?**

	Proposed Regulation Reference(2)	Section title(3)
	§250.736(d)	**What are the requirements for choke manifolds, kelly valves, inside BOPs, and drill string safety valves?**
	§250.737(a)	**What are the BOP system testing requirements?**

	Proposed Regulation Reference(2)	Section title(3)
	§250.737(a)	**What are the BOP system testing requirements?**
	§250.737(b)(3)	**What are the BOP system testing requirements?**
	§250.737(b)(3)	**What are the BOP system testing requirements?**
	§250.737(d)(2)	**What are the BOP system testing requirements?**

	Proposed Regulation Reference(2)	Section title(3)
	§250.737(d)(3)	**What are the BOP system testing requirements?**
	§250.738(f)	**What must I do in certain situations involving BOP equipment or systems?**

General Information

Proposed New Regulation Text(4)

General Information

Proposed New Regulation Text(4)

<u>If you encounter the following situation:</u> (k) **Plan to use a valve** on the drive pipe during cementing operations for the conductor casing, surface casing, or liner, **<u>Then you must…</u>** Include a description of the plan in your APD. Your description must include a schematic of the valve and height above the water line. The valve must be remotely operated and full opening with visual observation while taking returns. The person in charge of observing returns must be in communication with the drill floor. You must record in your daily report and in the WAR if cement returns were observed. If cement returns are not observed, you must contact the District Manager and obtain approval of proposed plans to locate the top of cement before continuing with operations.

General Information

Proposed New Regulation Text(4)
If you encounter the following situation: (k) Plan to use a **valve** on the drive pipe during cementing operations for the conductor casing, surface casing, or liner, **Then you must…** Include a description of the plan in your APD. Your description must include a schematic of the valve and height above the water line. The valve must be remotely operated and full opening with visual observation while taking returns. The person in charge of observing returns must be in communication with the drill floor. You must record in your daily report and in the WAR if cement returns were observed. If cement returns are not observed, you must contact the District Manager and obtain approval of proposed plans to locate the top of cement before continuing with operations.
If you encounter the following situation: (k) Plan to use a **valve** on the drive pipe during cementing operations for the conductor casing, surface casing, or liner, **Then you must…** Include a description of the plan in your APD. Your description must include a schematic of the valve and height above the water line. The valve must be remotely operated and full opening with visual observation while taking returns. The person in charge of observing returns must be in communication with the drill floor. You must record in your daily report and in the WAR if cement returns were observed. If cement returns are not observed, you must contact the District Manager and obtain approval of proposed plans to locate the top of cement before continuing with operations.
If you encounter the following situation: (k) Plan to use a valve on the drive pipe during cementing operations for the conductor casing, surface casing, or liner, **Then you must…** Include a description of the plan in your APD. Your description must include a schematic of the valve and height above the water line. The valve must be remotely operated and full opening with visual observation while taking returns. The person in charge of observing returns must be in communication with the drill floor. You must record in your daily report and in the WAR if cement returns were observed. If cement returns are not observed, you must contact the District Manager and obtain approval of proposed plans to locate the top of cement before continuing with operations.
(2) The production packer must be set at a depth that will allow for a column of weighted fluids to be placed above the packer during well completion operations that will exert a hydrostatic force greater than or equal to the force created by the reservoir pressure below the packer;

General Information

Proposed New Regulation Text(4)
(a) You must design, install, maintain, inspect, test, and use the BOP system and system components to ensure well-control. The working-pressure rating of each BOP component must exceed MASP as defined for the operation. For a subsea BOP, the MASP must be taken at the mudline. The BOP system includes the BOP stack, control system, and any other associated system(s) and equipment. The BOP system and individual components must be able to perform their expected functions and be compatible with each other.
(a) You must design, install, maintain, inspect, test, and use the BOP system and system components to ensure well-control. The working-pressure rating of each BOP component must exceed MASP as defined for the operation. For a subsea BOP, the MASP must be taken at the mudline. The BOP system includes the BOP stack, control system, and any other associated system(s) and equipment. The BOP system and individual components must be able to perform their expected functions and be compatible with each other.
Each ram (excluding casing shear/supershear) must be capable of closing and sealing the wellbore at all times, including under flowing conditions as defined for the operation and specific well conditions, without losing ram closure time and sealing integrity due to the corrosiveness, volume, and abrasiveness of any fluids in the wellbore that you may encounter. Your BOP system must meet the following requirements:
(3) For surface and subsea BOPs, the pipe and variable bore rams installed in the BOP stack must be capable of effectively closing and sealing on the tubular body of any drill pipe, workstring, and tubing in the hole under MASP, as defined for the operation, with the proposed regulator settings of the BOP control system.
(b) You must design, fabricate, maintain, and repair your BOP system according to the requirements contained in this subpart, OEM recommendations unless otherwise directed by BSEE, and recognized engineering practices. The training and qualification of repair and maintenance personnel must meet or exceed any OEM training recommendations unless otherwise directed by BSEE.

General Information
Proposed New Regulation Text(4)
You must submit: (a) A complete description of the BOP system and system components, **Including:** (1) Pressure ratings of BOP equipment; (2) Proposed BOP test pressures (for subsea BOPs, include both surface and corresponding subsea pressures); (3) Rated capacities for liquid and gas for the fluid-gas separator system; (4) Control fluid volumes needed to close, seal, and open each component; (5) Control system pressure and regulator settings needed to achieve an effective seal of each ram BOP under MASP as defined for the operation; (6) Number and volume of accumulator bottles and bottle banks (for subsea BOP, include both surface and subsea bottles); (7) Accumulator pre-charge calculations (for subsea BOP, include both surface and subsea calculations); (8) All locking devices; and (9) Control fluid volume calculations for the accumulator system (for a subsea BOP system, include both the surface and subsea volumes).
You must submit: (c) Certification by a BSEE-approved verification organization, **Including:** Verification that: (1) Test data clearly demonstrates the shear ram(s) will shear the drill pipe at the water depth as required in § 250.732; (2) The BOP was designed, tested, and maintained to perform at the most extreme anticipated conditions; and (3) The accumulator system has sufficient fluid to function the BOP system without assistance from the charging system.
(d) Once every 12 months, you must submit a Mechanical Integrity Assessment Report for a subsea BOP, a BOP being used in an HPHT environment as defined in § 250.807, or a surface BOP on a floating facility. This report must be completed by a BSEE-approved verification organization. You must submit this report to the Chief, Office of Regulatory Programs: Bureau of Safety and Environmental Enforcement: 45600 Woodland Road, Sterling, Virginia, 20166. This report must include: (1) through (15) (16) Recommendations, if any, for how to improve the fabrication, installation, operation, maintenance, inspection, and repair of the equipment.

General Information
Proposed New Regulation Text(4)
When operating with a subsea BOP system, you must: (1) Have at least five remote-controlled, hydraulically operated BOPs; **Additional requirements** You must have at least one annular BOP, two BOPs equipped with pipe rams, and two BOPs equipped with shear rams. For the two shear ram requirement, you must comply with this requirement within 5 years from the publication of the final rule. (i) Both BOPs equipped with pipe rams must be capable of closing and sealing on the tubular body of any drill pipe, workstring, and tubing under MASP, as defined for the operation, excluding the bottom hole assembly that includes heavy-weight pipe or collars, and bottom-hole tools. (ii) Both shear rams must be capable of shearing at any point along the tubular body of any drill pipe (excluding tool joints, bottom-hole tools, and bottom hole assemblies that includes heavy-weight pipe or collars), workstring, tubing, appropriate area for the liner or casing landing string, shear sub on subsea test tree, and any electric-, wire-, slick-line in the hole under MASP. At least one shear ram must be capable of sealing the wellbore after shearing under MASP conditions as defined for the operation. Any non-sealing shear rams must be installed below the sealing shear rams.
Any non-sealing shear rams must be installed below the sealing shear rams.
When operating with a subsea BOP system, you must: (3) Have the accumulator capacity located subsea, to provide fast closure of the BOP components and to operate all critical functions in case of a loss of the power fluid connection to the surface. **Additional requirements** The accumulator capacity must: (i) Function each required shear ram, choke and kill side outlet valves, one pipe ram, and disconnect the LMRP. (ii) Have the capability of delivering fluid to each ROV function i.e., flying leads. (iii) Have dedicated independent bottles for the autoshear, deadman, and EDS systems. (iv) Perform under MASP conditions as defined for the operation.

General Information
Proposed New Regulation Text(4)
When operating with a subsea BOP system, you must: (4) Have a subsea BOP stack equipped with remotely operated vehicle (ROV) intervention capability; **Additional requirements:** The ROV must be capable of performing critical functions including opening and closing each shear ram, choke and kill side outlet valves, all pipe rams, and LMRP disconnect under MASP conditions as defined for the operation. The ROV panels on the BOP and LMRP must be compliant with API RP 17H (as incorporated by reference in § 250.198).
When operating with a subsea BOP system, you must: (4) Have a subsea BOP stack equipped with remotely operated vehicle (ROV) intervention capability; **Additional requirements:** The ROV must be capable of performing critical functions including opening and closing each shear ram, choke and kill side outlet valves, all pipe rams, and LMRP disconnect under MASP conditions as defined for the operation. The ROV panels on the BOP and LMRP must be compliant with API RP 17H (as incorporated by reference in § 250.198).
When operating with a subsea BOP system, you must: (6) Provide autoshear, deadman, and EDS systems for dynamically positioned rigs; provide autoshear and deadman systems for moored rigs; **Additional requirements:** (i) Autoshear system means a safety system that is designed to automatically shut-in the wellbore in the event of a disconnect of the LMRP. This is considered a rapid discharge system. (ii) Deadman system means a safety system that is designed to automatically shut-in the wellbore in the event of a simultaneous absence of hydraulic supply and signal transmission capacity in both subsea control pods. This is considered a rapid discharge system. (iii) Emergency Disconnect Sequence (EDS) system means a safety system that is designed to be manually activated to shut-in the wellbore and disconnect the LMRP in the event of an emergency situation. This is considered a rapid discharge system. (iv) Each emergency function must close at a minimum, two shear rams in sequence and be capable of performing their expected shearing and sealing action under MASP conditions as defined for the operation. (v) Your sequencing must allow a sufficient delay for closing the upper shear ram after beginning closure of the lower shear ram to provide for maximum shearing efficiency. (vi) The control system for the emergency functions must be a fail-safe design, and the logic must provide for the subsequent step to be independent from the previous step having to be completed.

General Information
Proposed New Regulation Text(4)
When operating with a subsea BOP system, you must: (6) Provide autoshear, deadman, and EDS systems for dynamically positioned rigs; provide autoshear and deadman systems for moored rigs; **Additional requirements:** (i) Autoshear system means a safety system that is designed to automatically shut-in the wellbore in the event of a disconnect of the LMRP. This is considered a rapid discharge system. (ii) Deadman system means a safety system that is designed to automatically shut-in the wellbore in the event of a simultaneous absence of hydraulic supply and signal transmission capacity in both subsea control pods. This is considered a rapid discharge system. (iii) Emergency Disconnect Sequence (EDS) system means a safety system that is designed to be manually activated to shut-in the wellbore and disconnect the LMRP in the event of an emergency situation. This is considered a rapid discharge system. (iv) Each emergency function must close at a minimum, two shear rams in sequence and be capable of performing their expected shearing and sealing action under MASP conditions as defined for the operation. (v) Your sequencing must allow a sufficient delay for closing the upper shear ram after beginning closure of the lower shear ram to provide for maximum shearing efficiency. (vi) The control system for the emergency functions must be a fail-safe design, and the logic must provide for the subsequent step to be independent from the previous step having to be completed.
When operating with a subsea BOP system, you must: (7) Demonstrate that any acoustic control system will function in the proposed environment and conditions; **Additional requirements:** If you choose to install an acoustic control system in addition to the autoshear, deadman, and EDS requirements, you must demonstrate to the District Manager, as part of the information submitted under § 250.731, that the acoustic system will function in the proposed environment and conditions. The District Manager may require additional information.
When operating with a subsea BOP system, you must: (8) Have operational or physical barrier(s) on BOP control panels to prevent accidental disconnect functions; **Additional requirements:** Incorporate enable buttons on control panels to ensure two-handed operation for all critical functions.
When operating with a subsea BOP system, you must: (9) Clearly label all control panels for the subsea BOP system; **Additional requirements:** Label other BOP control panels such as hydraulic control panel.

General Information

Proposed New Regulation Text(4)
(b) If operations are suspended to make repairs to any part of the subsea BOP system, you must stop operations at a safe downhole location. Before resuming operations you must: (1) Submit a revised permit with a verification report from a BSEE-approved verification organization documenting the repairs and that the BOP is fit for service; (2) Perform a new BOP test in accordance with §§ 250.737 and 250.738 upon relatch including deadman and ROV intervention; and (3) Receive approval from the District Manager.
(c) If you plan to drill a new well with a subsea BOP, you do not need to submit with your APD the verifications required by this subpart for the open water drilling operation. Before drilling out the surface casing, you must submit for approval a revised APD, including the verifications required in this subpart.
(a) A surface accumulator system that provides 1.5 times the volume of fluid capacity necessary to close and hold closed all BOP components against MASP. The system must operate under MASP conditions as defined for the operation. You must be able to operate all BOP functions without assistance from a charging system, with the blind shear ram being the last in the sequence, and still have enough pressure to shear pipe and seal the well with a minimum pressure of 200 psi remaining on the bottles above the precharge pressure. If you supply the accumulator regulators by rig air and do not have a secondary source of pneumatic supply, you must equip the regulators with manual overrides or other devices to ensure capability of hydraulic operations if rig air is lost;
(a) A surface accumulator system that provides 1.5 times the volume of fluid capacity necessary to close and hold closed all BOP components against MASP. The system must operate under MASP conditions as defined for the operation. You must be able to operate all BOP functions without assistance from a charging system, with the blind shear ram being the last in the sequence, and still have enough pressure to shear pipe and seal the well with a minimum pressure of 200 psi remaining on the bottles above the precharge pressure. If you supply the accumulator regulators by rig air and do not have a secondary source of pneumatic supply, you must equip the regulators with manual overrides or other devices to ensure capability of hydraulic operations if rig air is lost;
(b) An automatic backup to the primary accumulator-charging system. The power source must be independent from the power source for the primary accumulator-charging system. The independent power source must possess sufficient capability to close and hold closed all BOP components under MASP conditions as defined for the operation;
(h) A wellhead assembly with a rated working pressure that exceeds the maximum anticipated wellhead pressure.

General Information

Proposed New Regulation Text(4)
(d) You must use the following BOP equipment with a rated working pressure and temperature of at least as great as the working pressure and temperature of the ram BOP during all operations: (1) A kelly valve installed below the swivel (upper kelly valve); (2) A kelly valve installed at the bottom of the kelly (lower kelly valve). You must be able to strip the lower kelly valve through the BOP stack; (3) If you operate with a mud motor and use drill pipe instead of a kelly, one kelly valve installed above, and one strippable kelly valve installed below, the joint of pipe used in place of a kelly; (4) On a top-drive system equipped with a remote-controlled valve, a strippable kelly-type valve installed below the remote-controlled valve; (5) An inside BOP in the open position located on the rig floor. You must be able to install an inside BOP for each size connection in the pipe; (6) A drill string safety valve in the open position located on the rig floor. You must have a drill-string safety valve available for each size connection in the pipe; (7) When running casing, a safety valve in the open position available on the rig floor to fit the casing string being run in the hole; (8) All required manual and remote-controlled kelly valves, drill-string safety valves, and comparable-type valves (i.e., kelly-type valve in a top-drive system) that are essentially full opening; and (9) A wrench to fit each manual valve. Each wrench must be readily accessible to the drilling crew.
(d) You must use the following BOP equipment with a rated working pressure and temperature of at least as great as the working pressure and temperature of the ram BOP during all operations: (1) A kelly valve installed below the swivel (upper kelly valve); (2) A kelly valve installed at the bottom of the kelly (lower kelly valve). You must be able to strip the lower kelly valve through the BOP stack; (3) If you operate with a mud motor and use drill pipe instead of a kelly, one kelly valve installed above, and one strippable kelly valve installed below, the joint of pipe used in place of a kelly; (4) On a top-drive system equipped with a remote-controlled valve, a strippable kelly-type valve installed below the remote-controlled valve; (5) An inside BOP in the open position located on the rig floor. You must be able to install an inside BOP for each size connection in the pipe; (6) A drill string safety valve in the open position located on the rig floor. You must have a drill-string safety valve available for each size connection in the pipe; (7) When running casing, a safety valve in the open position available on the rig floor to fit the casing string being run in the hole; (8) All required manual and remote-controlled kelly valves, drill-string safety valves, and comparable-type valves (i.e., kelly-type valve in a top-drive system) that are essentially full opening; and (9) A wrench to fit each manual valve. Each wrench must be readily accessible to the drilling crew.

General Information

Proposed New Regulation Text(4)
(d) You must use the following BOP equipment with a rated working pressure and temperature of at least as great as the working pressure and temperature of the ram BOP during all operations: (1) A kelly valve installed below the swivel (upper kelly valve); (2) A kelly valve installed at the bottom of the kelly (lower kelly valve). You must be able to strip the lower kelly valve through the BOP stack; (3) If you operate with a mud motor and use drill pipe instead of a kelly, one kelly valve installed above, and one strippable kelly valve installed below, the joint of pipe used in place of a kelly; (4) On a top-drive system equipped with a remote-controlled valve, a strippable kelly-type valve installed below the remote-controlled valve; (5) An inside BOP in the open position located on the rig floor. You must be able to install an inside BOP for each size connection in the pipe; (6) A drill string safety valve in the open position located on the rig floor. You must have a drill-string safety valve available for each size connection in the pipe; (7) When running casing, a safety valve in the open position available on the rig floor to fit the casing string being run in the hole; (8) All required manual and remote-controlled kelly valves, drill-string safety valves, and comparable-type valves (i.e., kelly-type valve in a top-drive system) that are essentially full opening; and (9) A wrench to fit each manual valve. Each wrench must be readily accessible to the drilling crew.
(a) Pressure test frequency. You must pressure test your BOP system: (1) When installed; (2) Before 14 days have elapsed since your last BOP pressure test, or 30 days since your last blind-shear ram BOP pressure test. You must begin to test your BOP system before midnight on the 14th day (or 30th day for your blind-shear rams) following the conclusion of the previous test; (3) Before drilling out each string of casing or a liner. You may omit this pressure test requirement if you did not remove the BOP stack to run the casing string or liner, the required BOP test pressures for the next section of the hole are not greater than the test pressures for the previous BOP test, and the time elapsed between tests has not exceeded 14 days (or 30 days for blind-shear rams). You must indicate in your APD which casing strings and liners meet these criteria; (4) The District Manager may require more frequent testing if conditions or your BOP performance warrants.

General Information

Proposed New Regulation Text(4)
(a) Pressure test frequency. You must pressure test your BOP system: (1) When installed; (2) Before 14 days have elapsed since your last BOP pressure test, or 30 days since your last blind-shear ram BOP pressure test. You must begin to test your BOP system before midnight on the 14th day (or 30th day for your blind-shear rams) following the conclusion of the previous test; (3) Before drilling out each string of casing or a liner. You may omit this pressure test requirement if you did not remove the BOP stack to run the casing string or liner, the required BOP test pressures for the next section of the hole are not greater than the test pressures for the previous BOP test, and the time elapsed between tests has not exceeded 14 days (or 30 days for blind-shear rams). You must indicate in your APD which casing strings and liners meet these criteria; (4) The District Manager may require more frequent testing if conditions or your BOP performance warrants.
You must conduct a…: (2) High-pressure test for blind-shear ram-type BOPs, ram-type BOPs, the choke manifold, outside of all choke and kill side outlet valves (and annular gas bleed valves for subsea BOP), inside of all choke and kill side outlet valves below uppermost ram, and other BOP components, **According to the following procedures…:** The high-pressure test must equal the rated working pressure of the equipment or be 500 psi greater than your calculated MASP, as defined for the operation for the applicable section of hole. Before you may test BOP equipment to the MASP plus 500 psi, the District Manager must have approved those test pressures in your APD.
You must conduct a…: (3) High-pressure test for annular-type BOPs, inside of choke or kill valves (and annular gas bleed valves for subsea BOP) above the uppermost ram BOP, **According to the following procedures…:** The high pressure test must equal 70 percent of the rated working pressure of the equipment or be 500 psi greater than your calculated MASP, as defined for the operation for the applicable section of hole. Before you may test BOP equipment to the MASP plus 500 psi, the District Manager must have approved those test pressures in your APD.
You must…: (2) Use water to test a surface BOP system. **Additional requirements…** (i) You must submit test procedures with your APD or APM for District Manager approval. (ii) Contact the District Manager at least 72 hours prior to beginning the test to allow BSEE representative(s) to witness testing. If BSEE representative(s) are unable to witness testing, you must provide the test results to the appropriate District Manager within 72 hours after completion of the tests.

Proposed New Regulation Text(4)
You must…: (3) Stump test a subsea BOP system before installation. **Additional requirements…**(i) You must use water to conduct this test. You may use drilling fluids to conduct subsequent tests of a subsea BOP system. (ii) You must submit test procedures with your APD or APM for District Manager approval. (iii) Contact the District Manager at least 72 hours prior to beginning the stump test to allow BSEE representative(s) to witness testing. If BSEE representative(s) are unable to witness testing, you must provide the test results to the appropriate District Manager within 72 hours after completion of the tests. (iv) You must test and verify closure of all ROV intervention functions on your subsea BOP stack during the stump test. (iv) You must follow (b) and (c) of this section.
If you encounter the following situation: (f) Plan to install casing rams or casing shear rams in a surface BOP stack; **Then you must...** Test the ram bonnets before running casing to the rated working pressure or MASP plus 500 psi. The BOP must also provide for sealing the well after casing is sheared. If this installation was not included in your approved permit, and changes the BOP configuration approved in the APD or APM, you must notify and receive approval from the District Manager.

BSEE WCR Preamble(5)

BSEE WCR Preamble(5)

The preamble describes an ROV hot stab thusly: "is basically comprised of two parts: A valve; and A tool that connects onto the valve and controls the valve."
"The BSEE is requesting comments on whether the proposed BOP testing interval should be 7 days, 14 days (as proposed), or 21 days for all types of operations including drilling, completions, workovers, and decommissioning."
The suggested revisions to 250.413 states: "The ECD is an important parameter in avoiding kicks. . ."

BSEE WCR Preamble(5)
No Old Reference

BSEE WCR Preamble(5)

BSEE WCR Preamble(5)

BSEE WCR Preamble(5)

BSEE WCR Preamble(5)

BSEE WCR Preamble(5)

BSEE WCR Preamble(5)

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BSEE WCR Preamble(5)

BSEE WCR Preamble(5)

COMMENTS(8)
COMMENTS(8)
In contrast to the BSEE's description, API RP 17H defines it as: "The hot stab is a means of making a temporary hydraulic or gas connection to a remote piece of subsea equipment using the ROV as the means of delivery and possibly supply of the fluid." It goes on to explain the design: "The hot stab design is based upon a section of mandrel being inserted into a pressure balanced receptacle with matching ports, allowing pressurization between the two isolated sections separated by seals." Note that the industry's definition and description of a hot stab does not reference a valve. In fact, an ROV hot stab is *not* a valve. While the configuration may include the use of a valve, a hot stab **is not a valve**. The BSEE's wording suggests that the BSEE is unaware of the design and purpose of a hot stab and did not reference the industry's main document on hot stabs. Recommend to re-word.
API Std 53 specifies a testing interval of 21 days. This document is used and respected on hundreds of rigs worldwide. I recommend that BSEE align their regulations with API Std. 53 and use a 21 day testing period.
The *mud weight* is an important parameter in avoiding kicks. While the ECD is a function of mud weight, the ECD is *not* an important parameter in avoiding kicks. For example, when pumps are stopped there is no ECD. This wording suggests that the BSEE is not aware of basic well control principles. Recommend to re-word.
The wording suggests that a valve is optional. Clarify that a valve required for both surface and subsea wells.

COMMENTS(8)
BSEE's choice of the word "valve" is restrictive. Recommend to change the wording to read "barrier." This would allow the inclusion of a pressure cap, a stab, or any number of other barriers in addition to a valve. Recommend to change to: "Your description must include a schematic of the primary barrier and height above. . ."
BSEE's choice of the singular word "valve" is restrictive. Recommend to change to "valve(s)". Note: For susbea wells, normally several valves are used, one for each port.
BSEE's choice of the singular word "valve" is not conservative enough for subsea wells. The existing state-of-art is to use two barriers, one of which is a valve. A secondary barrier, such as a pressure cap, is used to supplement the valve in case it leaks, which is common. Recommend to add language for subsea wells: "Your description must include a schematic of the primary and secondary barriers and height above mud-line. . ."
For subsea wells, this regulation requires the packer fluid to include riser margin. Packer fluid designs typically do not consider riser margin. In fact, packer fluids are often underbalanced to reservoir pressure. In some cases a special insulating fluid is used. Recommend to reword: "During well completion operations, the production packer must be set at a depth that will allow for a column of ~~weighted~~ fluids to be placed above the packer that will exert a hydrostatic force ~~greater than or equal to~~ acting against the force created by the reservoir pressure below the packer."

COMMENTS(8)
Operators do not design, install, or maintain BOP systems. Re-word: "You must ensure that the BOP system and system components are designed, installed, maintained, inspected, tested, and used properly to ensure well control."
There is no industry-accepted definition of "MASP at the mudline." However, industry has defined MAWHP, as defined in API RP 96 and API Std 53. Re-word: "Every installed ram BOP shall have, as a minimum, a rated working pressure equal to the MAWHP to be encountered."
There are no ram BOP's that are designed to be capable of closing and sealing under flowing conditions. Recommend to omit.
MASP does not apply to subsea BOP's. However, industry has defined MAWHP, as defined in API RP 96 and API Std 53. Re-word: "For surface BOPs, the pipe and variable bore rams. . .under MASP. For subsea BOPs, the pipe and variable bore rams. . .under MAWHP, "
Operators do not design, fabricate, maintain, or repair BOP systems. Re-word: "You must ensure that the design, fabrication, maintenance, and repair of your BOP system is in accordance with the requirements. . ."

COMMENTS(8)
MASP does not apply to subsea BOP's. However, industry has defined MAWHP, as defined in API RP 96 and API Std 53. Re-word: ". . .under MASP, or MAWHP if applicable,. . . "
The wording of item (3) is confusing because the "accumulator system" can be interpreted to be the same as the "charging system." Re-word: ". . .function the BOP system with the pumps inoperative." Note: This is consistent with API Std 53 wording specifying a draw-down test.
The verification organizations are not SME in the field of BOP equipment *fabrication.*   Therefore, they should not be relied upon to recommend ". . .how to improve fabrication. . ." Recommend to strike the word "fabrication" from this clause.

COMMENTS(8)
MASP does not apply to subsea BOP's. However, industry has defined MAWHP, as defined in API RP 96 and API Std 53. Change: ". . .under MASP. . ." to ". . .under MAWHP. . ." Note: Change is needed in two places in this article.
The last clause: "Any non-sealing shear rams must be installed below the sealing shear rams." is in direct conflict with API Std 53 which requires a documented risk assessment ". . . to identify ram placements and configurations. . ." There are cases where it may be preferrable to have a CSR in between two sets of BSRs.   This article would not allow this preferred configuration. Recommend to reword: "The fixed ram configuration must be established via a documented risk assessment per API Std. 53."
MASP does not apply to subsea BOP's. However, industry has defined MAWHP, as defined in API RP 96 and API Std 53. Re-word: "Perform under MASP conditions. . ." to state: "Perform under MAWHP conditions. . ."

COMMENTS(8)
MASP does not apply to subsea BOP's. However, industry has defined MAWHP, as defined in API RP 96 and API Std 53. Re-word: ". . .under MASP conditions. . ." to state: ". . .under MAWHP conditions. . ."
"MASP conditions" do not affect the LMRP disconnect. Reword to read: ". . .and all pipe rams under MAWHP conditions, as well disconnecting the LMRP."
These definitions are in conflict with API Std 53. Reword to read: "Autoshear System means a safety system as defined in API Std. 53 4th Ed." "Deadman System means a safety system as defined in API Std. 53, 4th Ed." etc.

COMMENTS(8)
MASP does not apply to subsea BOP's. However, industry has defined MAWHP, as defined in API RP 96 and API Std 53. Re-word: ". . .under MASP conditions. . ." to state: ". . .under MAWHP conditions. . ."
A rig may already have an acoustic system installed. It would be unproductive to remove. Recommend to re-word: "If you choose to install <u>and/or enable a previously installed</u> acoustic control system. . ."
All BOP control panels do not use "enable buttons." Recommend to re-word: "Incorporate enable buttons, <u>or similar feature</u>, on control panels. . ."
The example given doesn't make sense. Recommend to re-word: "Label other BOP control panels, such as <u>emergency</u> hydraulic control panel."

COMMENTS(8)
Performing the deadman test introduces risk into the operation and should be limited per API Std. 53. Recommend eliminating the reference to "deadman."
Government regulations should only prescribe what *is* required. Explanations about what *is not* required can be reserved for subsequent clarifications.
The stated requirement is inconsistent with API Std 53. The BSEE would have to provide robust evidence that their recommendations are an improvement to the state-of-the-art before it could be legally accepted by operators and rig contractors. The BSEE risks assuming liability for directing OCS operations against widely accepted best practice. For example, accumulator regulators on subsea BOP stacks are not supplied by rig air. This observation suggests that the BSEE is negligent in directing these changes against best practice.
To apply this correctly to a subsea BOP system, one should reference MAWHP, not MASP.
MASP does not apply to subsea BOP's. However, industry has defined MAWHP, as defined in API RP 96 and API Std 53. Re-word: ". . .under MASP conditions. . ." to state: ". . .under MASP conditions for surface BOPs and MAWHP conditions for subsea BOPs. . ."
Note that this requirement contradicts API 17TR12: Consideration of External Ambient Seawater Pressure in the Design and Pressure Rating of Subsea Equipment.

COMMENTS(8)
The wording of item (2) states that "You must use. . .a kelly valve installed at the bottom of the kelly. . ." Very few rigs in the OCS use a kelly. This regulation is obsolete; recommend to omit item (2).
The wording of item (3) states that ". . .if you use drill pipe instead of a kelly. . ." Almost every rig in the OCS uses drill pipe instead of a kelly. This regulation would require every operator to use a strippable kelly valve below "the joint of pipe used in place of a kelly." This regulation is obsolete; recommend to omit item (3).

COMMENTS(8)
The wording of item (8) states that you must use ". . .all required. . .valves. . ." but does not explain what is required. It is not possible to adhere to this requirement as written because it is not clear what is required.
Std. 53 requires BOP testing every 21 days, based upon worldwide industry best practice. Recommend to change the 14 day interval to 21 days, per API Std. 53.

COMMENTS(8)
The stated requirement for blind/shear ram testing every 30 days is inconsistent with API Std 53, which requires: "Pressure tested at casing points to the casing test pressure." The BSEE would have to provide robust evidence that their recommendations are an improvement to the state-of-the-art before it could be legally accepted by operators and rig contractors. The BSEE risks assuming liability for directing OCS operations against widely accepted best practice.
MASP does not apply to subsea BOP's. However, industry has defined MAWHP, as defined in API RP 96 and API Std 53. Re-word: ". . .500 psi greater than your calculated MASP. . ." to state: ". . .500 psi greater than you calculated MASP for surface BOPs and MAWHP for subsea BOPs. . ."
MASP does not apply to subsea BOP's. However, industry has defined MAWHP, as defined in API RP 96 and API Std 53. Re-word: ". . .500 psi greater than your calculated MASP. . ." to state: ". . .500 psi greater than you calculated MASP for surface BOPs and MAWHP for subsea BOPs. . ."
Using water to test a surface BOP system presents a hazard when draining the BOP of drilling mud. New rgulations should make operations *safer,* not less safe. Recommend to re-word: "Use water to test a surface BOP system on the initial test."

COMMENTS(8)
Government regulations should only prescribe what *is* required. Explanations about what is *not required* can be reserved for subsequent clarifications. Omit section that reads: "You may use drilling fluid to conduct subsequent tests. . ."
This wording requires the operator to "Test the ram bonnets. . .to the rated working pressure or MASP plus 500 psi." The ram bonnet RWP has nothing to do with MASP, which is based on the well. The wording suggests that the BSEE is not familar with ram bonnets. Recommend to re-word.