

**WELL-COMPLETION
OPERATIONS
LAST UPDATE 2015**

C-100

HAVE ALL WELLS IN THE SAME WELLBAY WHICH ARE CAPABLE OF PRODUCING HYDROCARBONS BEEN SHUT-IN BELOW THE SURFACE WITH A PUMP-THROUGH-TYPE TUBING PLUG OR SCSSV AND AT THE SURFACE WITH A CLOSED MASTER VALVE PRIOR TO MOVING WELL-COMPLETION RIGS AND RELATED EQUIPMENT (OR AS OTHERWISE APPROVED BY THE DISTRICT MANAGER)?

Authority: 30 CFR 250.502

Enforcement Action: W/S

INSPECTION PROCEDURE:

1. Check the facility/operator's records to verify that the wells capable of producing hydrocarbons were shut-in as follows prior to moving well-completion equipment:
 - A. Below the surface with a pump-through-type tubing plug or SSSV.
 - B. At the surface with a closed master valve.
 - C. As otherwise approved by the District Manager.
2. A closed SCSSV of the pump-through-type may be used in lieu of the pump-through-type tubing plug, provided that the surface control has been locked out of operation.
3. If the inspection is conducted while well-completion equipment is being moved, inspect each well capable of producing hydrocarbons to verify that it is shut-in as described above.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if records indicate that wells capable of producing hydrocarbons in the same wellbay have not been shut-in below the surface and at the surface.

Issue a facility shut-in (S) INC for the moving operation if moving operations are in progress and wells capable of producing hydrocarbons in the same wellbay have not been shut-in below the surface and at the surface.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per facility inspected.

C-101

IS THE WELL, FROM WHICH THE RIG OR RELATED EQUIPMENT IS TO BE MOVED, EQUIPPED WITH A SHUT-IN BACK PRESSURE VALVE PRIOR TO REMOVING THE BOP SYSTEM AND INSTALLING THE TREE?

Authority: 30 CFR 250.502

Enforcement Action: W/S

INSPECTION PROCEDURE:

1. Check the operator's records to verify that the well from which the well-completion equipment was moved was equipped with a back-pressure valve prior to removing the BOP and installing the tree.
2. If moving operations are in progress during the inspection, verify that the back-pressure valve is in place.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if records indicate that a back-pressure valve was not installed in the well prior to moving the completion equipment.

Issue a facility shut-in (S) INC for the moving operation if moving operations are in progress and a back-pressure valve is not installed in the well prior to moving the completion equipment.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per facility inspected.

C-102

HAVE CREW MEMBERS BEEN INSTRUCTED IN THE SAFETY REQUIREMENTS OF THE OPERATIONS TO BE PERFORMED, POSSIBLE HAZARDS TO BE ENCOUNTERED, AND GENERAL SAFETY CONSIDERATIONS TO PROTECT PERSONNEL, EQUIPMENT, AND THE ENVIRONMENT PRIOR TO ENGAGING IN WELL-COMPLETION OPERATIONS; AND HAVE THE DATE AND TIME OF THE SAFETY MEETINGS BEEN RECORDED?

Authority: 30 CFR 250.506

Enforcement Action: W

INSPECTION PROCEDURE:

Verify that all crew members have received instruction at safety meetings in the following prior to commencing well-completion operations and that the date and time of the meetings have been recorded:

1. Safety requirements of the operation to be performed.
2. Possible hazards to be encountered.
3. General safety considerations to protect:
 - A. Personnel.
 - B. Equipment.
 - C. Environment.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if:

1. The safety meeting was not held prior to commencing well-completion operations.
2. The time and date of the safety meetings were not recorded.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per facility inspected.

C-104

HAVE ALL UNITS BEING USED FOR WELL-COMPLETION OPERATIONS WHICH HAVE BOTH A TRAVELING BLOCK AND A CROWN BLOCK BEEN EQUIPPED WITH A SAFETY DEVICE WHICH IS DESIGNED TO PREVENT THE TRAVELING BLOCK FROM STRIKING THE CROWN BLOCK?

Authority: 30 CFR 250.511

Enforcement Action: S

DEFINITION:

Traveling block safety device - Normally a device (toggle) installed above the cable drum which, when struck, disengages the drum clutch and sets the brake (also known as a "Crown-o-matic").

INSPECTION PROCEDURE:

1. Visually inspect the completion unit to verify the presence of a traveling block safety device.
2. Visually inspect the position of the toggle above the cable drum to verify the distance for cable shut-down.
3. If completion operations are in progress, verify that the device is in service and witness the proper operation of the device.

Note: The traveling block safety device is not to be actuation tested when the traveling block is loaded with drill pipe or work string.

IF NONCOMPLIANCE EXISTS:

Issue a shut-in (S) INC for the completion unit if:

1. The traveling block safety device is not installed.
2. The toggle is not installed above the cable drum a sufficient distance for cable shut-down.
3. The device does not operate properly.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per facility inspected.

C-105

HAS THE TRAVELING-BLOCK SAFETY DEVICE BEEN CHECKED FOR PROPER OPERATION WEEKLY AND AFTER EACH DRILL-LINE SLIPPING OPERATION, AND HAVE THE RESULTS OF THE OPERATIONAL CHECK BEEN RECORDED IN THE OPERATIONS LOG?

Authority: 30 CFR 250.511

Enforcement Action: W

INSPECTION PROCEDURE:

1. Verify that the traveling-block safety device has been checked for proper operation:
 - A. Weekly; and
 - B. After each drill-line slipping operation.
2. Verify that the toggle has been reset after each drill line slipping operation.
3. Verify that the results of the operational checks have been recorded in the operations log.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if:

1. The safety device has not been checked for proper operation as required.
2. The results were not recorded in the operations log.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per facility inspected.

C-106

BEFORE DISPLACING KILL-WEIGHT FLUID FROM THE WELLBORE, DID THE OPERATOR OBTAIN APPROVAL FROM THE DISTRICT MANAGER?

Authority: 30 CFR 250.514(d)

Enforcement Action: S

INSPECTION PROCEDURE:

Check records to verify that -

1. Approval from District Manager included the reasons for displacing kill-weight fluid and had a detailed step by step procedure for conducting the displacement.
2. Step by step displacement procedures address the following:
 - A. Number and type of independent barriers that are in place for each flow path;
 - B. Tests you will conduct to ensure integrity of independent barriers;
 - C. BOP procedures you will use while displacing kill-weight fluids; and,
 - D. Procedures you will use to monitor fluids entering and leaving the wellbore.

Note: Records must be made available during inspection.

IF NONCOMPLIANCE EXISTS:

Issue a rig shut-in (S) if the operator did not receive approval from the District Manager before displacing kill-weight fluid from the wellbore.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per surface and subsea BOP system inspected.

- C-107 HAS THE LESSEE RECEIVED WRITTEN APPROVAL FROM THE DISTRICT MANAGER PRIOR TO CONDUCTING WELL-COMPLETION OPERATIONS?**
Authority: 30 CFR 250.505 Enforcement Action: S
30 CFR 250.513
INSPECTION PROCEDURE:
Request proof of written approval from the operator, as follows:
1. Form BSEE-0123, Application for Permit to Drill, or
2. Form BSEE-0124, Deepening and Plugging Back of Wells, Sundry Notices and Reports on Wells, signed by the District Manager.
IF NONCOMPLIANCE EXISTS:
Issue a facility shut-in (S) INC for the completion operation if the operator does not have written approval for the operation.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.
- C-108 IS THE WELL BEING CONTINUOUSLY MONITORED DURING WELL-COMPLETION OPERATIONS AND NOT LEFT UNATTENDED AT ANY TIME UNLESS THE WELL IS SHUT-IN AND SECURED?**
Authority: 30 CFR 250.514(a) Enforcement Action: W
DEFINITION:
Continuously monitored - From the time operations are initiated until operations are completed, a member of the crew shall maintain surveillance continuously unless the well is secured with BOP's, bridge plugs, storm packers, cement plugs, or SSSV's.
INSPECTION PROCEDURE:
Verify that the well is continuously monitored.
IF NONCOMPLIANCE EXISTS:
Issue a warning (W) INC if the well is not continuously monitored.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.
- C-109 HAS A FILL-UP LINE ABOVE THE UPPERMOST BOP BEEN INSTALLED, MAINTAINED, AND UTILIZED?**
Authority: 30 CFR 250.514(b)(1) Enforcement Action: S
INSPECTION PROCEDURE:
Verify that the fill-up line is connected above the uppermost preventer.
Note: Kill lines are not acceptable as fill-up lines.
IF NONCOMPLIANCE EXISTS:
Issue a facility (S) INC shut-in for the completion rig if an operable fill-up line has not been installed above the uppermost preventer.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.
- C-110 HAS A RECORDING MUD-PIT LEVEL INDICATOR WITH BOTH A VISUAL AND AN AUDIBLE WARNING DEVICE BEEN INSTALLED, MAINTAINED, AND UTILIZED?**
Authority: 30 CFR 250.514(b)(3) Enforcement Action: S
INSPECTION PROCEDURE:
1. Verify the installation of a recording mud-pit level indicator.
2. Witness the operation of the system, including visual and audible alarms, by actuating the mud-pit level sensors in accordance with Appendix 25.
IF NONCOMPLIANCE EXISTS:
Issue a facility shut-in (S) INC for the completion rig when mud-pit-level indicator system is not installed and operable.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.
- C-111 WHEN COMING OUT OF THE HOLE WITH DRILL PIPE, IS THE ANNULUS BEING FILLED WITH WELL-CONTROL FLUID BEFORE THE CHANGE IN SUCH FLUID LEVEL DECREASES THE HYDROSTATIC PRESSURE 75 PSI, OR EVERY FIVE STANDS OF DRILL PIPE, WHICHEVER GIVES A LOWER DECREASE IN HYDROSTATIC PRESSURE?**
Authority: 30 CFR 250.514(c) Enforcement Action: W
INSPECTION PROCEDURE:
If pulling operations are in progress, verify that the hole is filled after pulling the posted number of stands.
IF NONCOMPLIANCE EXISTS:
Issue a warning (W) INC when more than the posted number of stands is pulled and the hole are not filled.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.

C-112 HAS 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 BEEN CALCULATED AND POSTED NEAR THE OPERATOR'S STATION? Authority: 30 CFR 250.514(c) Enforcement Action: W
INSPECTION PROCEDURE:
Verify that the fill-up volume equivalents for the drill pipe and drill collars in use are posted near the operator's station.
Note: Proper fill-up volumes are verifiable only if the hole is being filled during the inspection.
IF NONCOMPLIANCE EXISTS:
Issue a warning (W) INC when these volumes are not posted near the operator's station.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.

C-113 IS A MECHANICAL, VOLUMETRIC, OR ELECTRONIC DEVICE UTILIZED TO DETERMINE THE AMOUNT OF WELL-CONTROL FLUID REQUIRED TO FILL THE HOLE? Authority: 30 CFR 250.514(b)(2) Enforcement Action: S
30 CFR 250.514(c)
INSPECTION PROCEDURE:
1. Verify the installation of a well-control fluid volume measuring device.
2. Witness the operation of the well-control fluid volume measuring device if trip operations are in progress during the inspection.
IF NONCOMPLIANCE EXISTS:
Issue a facility shut-in (S) INC for the completion operation if the well-control fluid volume measuring device is not installed or if it is not operable.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.

BOP OPERATIONS FOR WELL-COMPLETIONS

C-114 DOES THE BOP SYSTEM FOR WELL-COMPLETION OPERATIONS INCLUDE THREE PREVENTERS WHEN THE EXPECTED SURFACE PRESSURE IS LESS THAN 5,000 PSI? Authority: 30 CFR 250.516(b)(1) Enforcement Action: S
INSPECTION PROCEDURE:
1. For completion operations, where the anticipated surface pressure is less than 5,000 psi, visually inspect the BOP system to verify the installation of the following as a minimum:
A. One annular preventer,
B. One set of pipe rams, and
C. One set of blind or blind-shear rams.
2. For subsea BOP stacks, visually check the control station for the above configuration, or if available, check via the television camera.
IF NONCOMPLIANCE EXISTS:
Issue a facility shut-in (S) INC for the completion operation if the BOP system is not as required.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.

C-115 DOES THE BOP SYSTEM FOR WELL-COMPLETION OPERATIONS INCLUDE FOUR PREVENTERS WHEN THE EXPECTED SURFACE PRESSURE IS 5,000 PSI OR GREATER? Authority: 30 CFR 250.516(b)(2) Enforcement Action: S
INSPECTION PROCEDURE:
1. For completion operations where the anticipated surface pressure is equal to or greater than 5000 psi, visually inspect the BOP system to verify the installation of the following as a minimum:
A. One annular preventer,
B. Two sets of pipe rams, and
C. One set of blind or blind-shear rams.
2. For subsea BOP stacks, visually check the control station for the above configuration or, if available, check via the television camera.
IF NONCOMPLIANCE EXISTS:
Issue a facility shut-in (S) INC for the completion operation if the BOP system is not as required.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.

- C-139 DO THE TESTS ALTERNATE BETWEEN CONTROL STATIONS AND PODS.**
Authority: 30 CFR 250.517(d)(3) **Enforcement Action: W/S**
INSPECTION PROCEDURE:
1. Verify that all control stations are functional.
2. Conditions permitting, witness operation of the BOP equipment by the crew on tour.
IF NONCOMPLIANCE EXISTS:
Issue a warning (W) INC if records indicate that each crew has not operated the BOP equipment during tests.
Issue a facility shut-in (S) INC for the completion rig if either control station is found to be inoperable.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC for each control station inspected.
- C-140 ARE ALL PERSONNEL ENGAGED IN WELL-COMPLETION OPERATIONS PARTICIPATING IN A WEEKLY DRILL TO FAMILIARIZE CREW MEMBERS WITH APPROPRIATE SAFETY MEASURES?**
Authority: 30 CFR 250.517(f) **Enforcement Action: W**
INSPECTION PROCEDURE:
Inspect operator's log to verify that all personnel are participating in weekly drills and that they have been recorded.
Note: The operator may be instructed to conduct a drill at any time during the inspection while operations are in progress after consulting with the company representative.
IF NONCOMPLIANCE EXISTS:
Issue a warning (W) INC if weekly drills have not been conducted or recorded.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.
- C-141 ARE THE TIME, DATE, AND RESULTS OF ALL PRESSURE TESTS, ACTUATION, INSPECTIONS, AND CREW DRILLS OF THE BOP SYSTEM, SYSTEM COMPONENTS, AND MARINE RISERS RECORDED IN THE DRILLERS REPORT OR REFERENCED DOCUMENT?**
Authority: 30 CFR 250.517(i) **Enforcement Action: W**
INSPECTION PROCEDURE:
1. Check the operations log to verify that the time, date, and results of all pressure tests, actuation, inspections, and crew drills of BOP systems, system components, and marine risers are recorded.
2. As an alternative, the documentation required to be entered in the operations log may be referenced there. If the time, date, and results of the pressure tests, actuation, inspections, and crew drills of BOP systems, system components, and marine risers are referenced in the operations log, check the referenced document to verify that the documentation is there.
IF NONCOMPLIANCE EXISTS:
Issue a warning (W) INC if the time, date and results of all pressure tests, actuation, inspections, and crew drills of the BOP system, system components, and marine risers are not entered in the operations log or referenced document.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.
- C-142 HAS THE CASING BEEN PRESSURE-TESTED, CALIPERED, OR OTHERWISE EVALUATED EVERY 30 DAYS DURING PROLONGED OPERATIONS AND ARE RESULTS SUBMITTED TO THE DISTRICT MANAGER?**
Authority: 30 CFR 250.518(b) **Enforcement Action: W**
Note: This PINC applies to prolonged operations that could damage the casing, such as milling, fishing, jarring, or washing over.
INSPECTION PROCEDURE:
1. Inspect the operator's log to determine if prolonged operations that could damage the casing have been conducted.
2. If such prolonged operations have been conducted, verify that the casing has been pressure tested, calipered, or otherwise evaluated every 30 days.
IF NONCOMPLIANCE EXISTS:
Issue a warning (W) INC if the operator's log indicates that the casing has not been evaluated every 30 days during prolonged operations that could damage the casing.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.

ESD SYSTEM

C-160

IS AN OPERABLE ESD STATION LOCATED NEAR THE DRILLER'S CONSOLE OR WELL- SERVICING UNIT OPERATOR'S WORK STATION ON PLATFORMS WHERE THERE ARE OTHER HYDROCARBON-PRODUCING WELLS OR OTHER HYDROCARBON FLOW.

Authority: 30 CFR 250.503

Enforcement Action: S

Note: The offshore operator and contractor should be advised that the ESD station should be tested when installed and subsequent to each rig skid. The ESD station should be tested to shut in one well during initial installation of the ESD station and for system operability after the initial test.

Furthermore, the ESD station near the Driller's console shall be rotated and tested in order when testing other ESD stations on the platform.

INSPECTION PROCEDURE:

1. Verify that there is an ESD station near the driller's console or well-servicing unit operator's work station during well- completion operations.
2. Verify operation of the ESD station by testing in accordance with Appendix 10.

IF NONCOMPLIANCE EXISTS:

Issue a shut-in (S) INC for each well-completion operation when an ESD station:

1. Does not exist at the required location.
2. Does not operate properly.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per facility inspected.

BOP TEST/ACUATION/INSPECTION AND MAINTENANCE

C-170

DOES THE SUBSEA BOP SYSTEM FOR WELL COMPLETION OPERATIONS INCLUDE AT LEAST FOUR REMOTE-CONTROLLED HYDRAULICALLY OPERATED BOPS?

**Authority: 30 CFR 250.516(b)(5)
30 CFR 250.442(a)**

Enforcement Action: S

**INSPECTION
PROCEDURE:**

1. Check records to verify that operator has:
 - A. One annular BOP.
 - B. Two BOP's equipped with pipe rams.
 - C. One BOP equipped with blind-shear rams.

Note: The blind-shear rams must be capable of shearing any drill pipe in the hole under maximum anticipated surface pressure.

2. For subsea BOP stacks, visually check the control station for the above configurations or if available check via television camera.

IF NONCOMPLIANCE EXISTS:

Issue rig shut-in (S) INC If at least four remote controlled, hydraulically operated BOP's are not installed as required.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per BOP system inspected.

C-171

DOES THE BOP SYSTEM FOR WELL COMPLETION OPERATIONS INCLUDE OPERABLE DUAL-POD CONTROL SYSTEMS TO ENSURE PROPER AND INDEPENDENT OPERATION? Authority: 30 CFR 250.516(e)

30 CFR 250.442(b)

Enforcement Action: S

**INSPECTION
PROCEDURE:**

1. Verify that a dual pod control system has been installed as follows:
 - A. Two completely redundant control pods.
 - B. Each pod contains all necessary valves and regulators to operate the BOP stack functions.
2. Conditions permitting, witness a function test of each pod to verify proper actuation.

IF NONCOMPLIANCE EXISTS:

Issue a rig shut-in (S) INC when an operable dual pod control system has not been installed.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each inspection.

C-172

DOES THE ACCUMULATOR CLOSING SYSTEM FOR WELL COMPLETION OPERATIONS, PROVIDES 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, INSTALLED IN ACCORDANCE WITH API RP 53 SECTION 13.3?

Authority: 30 CFR 250.516(e)
30 CFR 250.442(c)

Enforcement Action: S

INSPECTION PROCEDURE:

Verify that:

1. BOP stack is equipped with accumulator bottles.
 - A. BOP Rams close within 45 seconds.
 - B. Annular BOPS close within 60 seconds.
 - C. Operating response time for the choke and kill valves (either open or closed) does not exceed the minimum observed BOP Ram close response time.
 - D. Time to unlatch the lower marine riser package does not exceed 45 seconds.
2. Check closing times for pressure and function tests are in compliance.

IF NONCOMPLIANCE EXISTS:

Issue a rig shut-in (S) INC if the accumulator closing system cannot operate the specified equipment within the specified time.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per BOP system inspected.

C-173

DOES OPERATOR'S SUBSEA ACCUMULATOR PRECHARGE PRESSURE COMPENSATE FOR THE WATER DEPTH THE BOPS WILL BE OPERATING IN ACCORDANCE WITH API RP 53, SECTION 13.3.7?

Authority: 30 CFR 250.516(e)
30 CFR 250.442(c)

Enforcement Action: S

INSPECTION PROCEDURE:

Check records to verify that the subsea accumulator precharge pressure compensates for the water depth the BOPs will be operating in.

Note: For example, if the precharge pressure of the surface accumulator is 1,000 psi and the BOPs will be in 500ft water depth, the subsea accumulators must be precharged to 1,225 psi.

IF NONCOMPLIANCE EXISTS:

Issue a rig shut in (S) INC if subsea accumulator precharge pressure does not compensates for the water depth the BOPs will be operating in.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per subsea accumulator system inspected.

C-174

DID OPERATOR CALIBRATE ACCUMULATOR PRESSURE GAUGES TO ONE PERCENT OF FULL SCALE AT LEAST ONCE EVERY THREE YEARS IN ACCORDANCE WITH API RP 53, SECTION 13.3.8?

Authority: 30 CFR 250.516(e)
30 CFR 250.442(c)

Enforcement Action: W

INSPECTION PROCEDURE:

Check records to verify that operator calibrated accumulator pressure gauges every three years to one percent of full scale.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if operator did not calibrate accumulator pressure gauges every three years to one percent of full scale.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per subsea BOP system inspected.

C-175

IS THE SUBSEA BOP STACK EQUIPPED WITH A ROV INTERVENTION FOR WELL COMPLETION OPERATIONS?

**Authority: 30 CFR 250.516(e)
30 CFR 250.442(d)**

Enforcement Action: S

**INSPECTION
PROCEDURE:**

1. Check records to verify that the ROV is capable of closing one set of pipe rams and one set of blind shears and unlatching LMRP.
2. Conditions permitting, witness:
 - A. ROV intervention functions on the subsea BOP stack during the stump test.
 - B. Testing at least one set of rams during the initial test on the seafloor.
 - C. Function testing of the ROV hot stabs to determine if they are capable of actuating a minimum of one set of pipe rams and one set of blind shear rams and unlatching the LMRP during the stump test.

IF NONCOMPLIANCE EXISTS:

Issue a rig shut-in (S) INC if the ROV function testing does not meet one or more of the requirements listed above.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per ROV inspected.

C-176

DOES THE SUBSEA BOP SYSTEM HAVE AN AUTOSHEAR AND DEADMAN SYSTEM FOR DYNAMICALLY POSITIONED RIGS FOR WELL COMPLETION OPERATIONS?

**Authority: 30 CFR 250.516(e)
30 CFR**

Enforcement Action: S

250.442(f) Definitions:

1. **Autoshear system** means a safety system that is designed to automatically shut in the wellbore in the event of a disconnect of the LMRP. When the autoshear is armed, a disconnect of the LMRP closes the shear rams. This is considered a “rapid discharge” system.
2. **Deadman System** means a safety system that is designed to automatically close 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.

INSPECTION

PROCEDURE:

Verify that the operator provided an autoshear and deadman systems for dynamically positioned rigs when conducting completion operations.

Note: Operator does not have to have an acoustic system.

IF NONCOMPLIANCE EXISTS:

Issue a rig shut-in (S) if operator did not provide an autoshear and deadman systems for dynamically positioned rigs when conducting completion operations.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per subsea BOP system inspected.

C-177

DID THE OPERATOR INSTALL OPERATIONAL OR PHYSICAL BARRIER(S) ON A SUBSEA BOP CONTROL PANEL TO PREVENT ACCIDENTAL DISCONNECT FOR WELL COMPLETION OPERATIONS?

**Authority: 30 CFR 250.516(e)
30 CFR**

Enforcement Action: W

250.442(g) INSPECTION

PROCEDURE:

Verify that operator incorporated enable buttons on a subsea BOP control panel to ensure two-handed operation for all critical functions.

IF NONCOMPLIANCE

EXISTS:

Issue a warning (W) INC if operator did not incorporate enable buttons on control panels to ensure two-handed operation for all critical functions.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per subsea BOP system inspected.

BLOWOUT PREVENTER SYSTEM TESTS, INSPECTIONS, AND MAINTENANCE

- C-182** **ARE VARIABLE-BORE PIPE RAMS PRESSURE-TESTED AGAINST ALL SIZES OF PIPE IN USE, EXCLUDING DRILL COLLARS AND BOTTOM-HOLE TOOLS?**
Authority: 30 CFR 250. 517(d)(6) **Enforcement Action:** W/S
1. If inspection is performed during testing, confirm operator compliance by witnessing test.
2. Inspect records for verification that tests have been conducted.
IF NONCOMPLIANCE EXISTS:
Issue a warning (W) INC if past test has not been conducted but a subsequent test has been conducted.
Issue a rig shut-in (S) INC if test has not been conducted.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per BOP system inspected.
- C-183** **DID OPERATOR TEST ALL ROV INTERVENTION FUNCTIONS ON THE SUBSEA BOP STACK DURING THE STUMP TEST?**
Authority: 30 CFR 250.517(d)(8) **Enforcement Action:** S
INSPECTION PROCEDURE:
Check records to verify that:
1. ROV is fully compatible with the BOP stack and ROV intervention panels.
2. Operator conducted ROV intervention function test during the stump test.
3. ROV hot stab was capable of actuating at a minimum one set of pipe rams, one set of blind shear rams, and unlatching the LMRP.
Note: Check records to verify that operator tested all ROV intervention functions in accordance with test procedures in the approved APM.
IF NONCOMPLIANCE EXISTS: Issue a rig shut-in (S) if operator's did not conduct a function test during the stump test and ROV hot stab was not capable of actuating at a minimum one set of pipe rams, one set of blind shear rams, and unlatching the LMRP.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per subsea BOP system inspected.
- C-184** **DID THE OPERATOR TEST AND VERIFY CLOSURE OF AT LEAST ONE SET OF RAMS ON THE SUBSEA BOP STACK THROUGH AN ROV HOT STAB UPON ITS INITIAL INSTALLATION ON THE SEAFLOOR?**
Authority: 30 CFR 250.517(d)(8) **Enforcement Action:** S
INSPECTION PROCEDURE:
Check records to verify that:
1. ROV is fully compatible with the BOP stack and ROV intervention panels.
2. Tested at least one set of rams on the subsea BOP stack upon its installation on the seafloor in accordance with the test procedures and approved APM.
3. Submit test procedures with your APM for District Manager approval.
Note: Check records to verify that operator tested one set of rams on the subsea BOP stack upon its installation on the seafloor in accordance with the test procedures and approved APM.
IF NONCOMPLIANCE EXISTS:
Issue a rig shut-in (S) if operators did not conduct a test on at least one set of rams on the subsea BOP stack upon its initial installation on the sea floor.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per subsea BOP system inspected.
- C-185** **DID OPERATOR CONDUCT A FUNCTION TEST ON THE AUTOSHEAR AND DEADMAN SYSTEMS ON THEIR SUBSEA BOP STACKS WHILE CONDUCTING WELL-COMPLETION OPERATIONS DURING THE STUMP TEST?**
Authority: 30 CFR 250.517(d)(9) **Enforcement Action:** S
INSPECTION PROCEDURE:
1. Verify that the function test on autoshear and deadman systems during stump test.
2. Verify the test of the deadman system and the closure of at least one set of blind-shear rams during the initial test on the seafloor.
Note: Records must be made available inspection.
IF NONCOMPLIANCE EXISTS:
Issue a component shut in (S) if operator did not conduct a successful function test of autoshear and deadman systems during stump test or during the initial test of the deadman system on the seafloor.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per subsea BOP system inspected.

BOP TESTS, ACTUATORS, INSPECTIONS, AND MAINTENANCE

- C-186** **AFTER EACH WELL DRILLED, DID OPERATOR CLEAN, VISUALLY INSPECT, PERFORM PREVENTIVE MAINTENANCE, AND PRESSURE TEST EQUIPMENT BEFORE INSTALLATION ON THE NEXT WELL IN ACCORDANCE WITH API RP 53 SECTIONS 17.10 AND 18.10?**
Authority: 30 CFR 250.517(g) **Enforcement Action:** S
INSPECTION PROCEDURE:
Check records to verify that operator cleaned, visually inspect, performed preventive maintenance, and pressure test the well control equipment before installation on the next well. Note: Well control equipment applies to both surface and subsea.
IF NONCOMPLIANCE EXISTS:
Issue a rig shut in (S) INC if operator did not clean, visually inspect, performed preventive maintenance, and pressure test the well control equipment before installation on the next well.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per subsea BOP system inspected.
- C-187** **ARE ALL BOP STACKS, CHOKE MANIFOLDS, AND DIVERTER COMPONENTS USED DURING WELL COMPLETION OPERATIONS, DISASSEMBLED AND INSPECTED IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S GUIDELINES AFTER EVERY 3-5 YEARS OF SERVICE IN ACCORDANCE WITH API RP 53 SECTIONS 17.10 AND 18.10?**
Authority: 30 CFR 250. 30 CFR 250.517(g) **Enforcement Action:** W/S
INSPECTION PROCEDURE:
Verify that:
1. Elastomer components have been changed out.
2. Surface finishes have been examined for wear and corrosion.
3. Critical dimensions should be checked against the manufactures allowable wear limits.
4. A full internal and external inspection of the flexible choke and kill lines should be performed in accordance with the equipment manufacturers.
Note: Records must be maintained on the rig for two years or from the date of you last major inspection, whichever is longer.
IF NONCOMPLIANCE EXISTS:
Issue a warning (W) INC if the component (BOP stack, Choke Manifold, and Diverter) has been found to be in violation but is no longer in use.
Issue a rig shut-in (S) INC when operator has not disassembled and inspected all BOP stacks, choke manifolds, and diverter components in accordance with the equipment manufacturer's guidelines after 3-5 years of service.
Enter one item checked/issue one INC per inspection.
- C-188** **IS THE SURFACE BOP SYSTEM VISUALLY INSPECTED ONCE DAILY OR ARE THE SUBSEA BOP SYSTEM AND MARINE RISER INSPECTED ONCE EVERY 3 DAYS, WEATHER AND SEA CONDITIONS PERMITTING?**
Authority: 30 CFR 250.517(g)(2) **Enforcement Action:** W
30 CFR 250.517(h)(i)
Note:
1. Weather and sea conditions are allowable reasons for not inspecting subsea BOP systems and marine risers every 3 days.
2. You may use television cameras to inspect this equipment.
INSPECTION PROCEDURE:
Verify that the BOP systems and marine risers have been visually inspected by checking the Driller's report or reference documents.
IF NONCOMPLIANCE EXISTS:
Issue a warning (W) INC when the operator cannot verify that the BOP system is visually inspected as required.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per BOP system inspected.
- C-189** **ARE MANUFACTURER'S INSTALLATION, OPERATION, AND MAINTENANCE (IOM) MANUALS AVAILABLE ON THE RIG FOR ALL THE BOP EQUIPMENT INSTALLED ON THE RIG IN ACCORDANCE WITH API RP 53 SECTIONS 17.11 AND 18.11.**
Authority: 30 CFR 250.517(h) **Enforcement Action:** S
INSPECTION PROCEDURE:
Verify that Manufacturer's installation, operation, and maintenance (IOM) manuals available on the rig for all the BOP equipment installed on the rig.
IF NONCOMPLIANCE EXISTS:
Issue a rig shut-in (S) INC if the manufacturer's installation, operation, and maintenance (IOM) manuals are not available on the rig for all the BOP equipment installed on the rig.

INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per inspection.

C-190 **IS A PLANNED MAINTENANCE SYSTEM, WITH EQUIPMENT IDENTIFIED, TASKS SPECIFIED, AND THE TIME INTERVALS BETWEEN TASKS STATED, EMPLOYED ON EACH RIG AND ARE THEY MAINTAINED ON FILE AT THE RIG SITE OR READILY AVAILABLE FOR THE APPLICABLE BOP EQUIPMENT IN ACCORDANCE WITH API RP 53 SECTIONS 17.12 AND 18.12?**

Authority: 30 CFR 250.517(h)

Enforcement Action: S

INSPECTION PROCEDURE:

Verify that a planned maintenance system, with equipment identified, tasks specified, and the time intervals between tasks stated, employed on each rig and are they maintained on file at the rig site or readily available for the applicable BOP equipment

IF NONCOMPLIANCE EXISTS:

Issue a rig shut-in (S) INC if they are not following the planned maintenance system.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per inspection.

C-191 **DOES OPERATOR MAINTAIN COPIES OF EQUIPMENT MANUFACTURERS' PRODUCT ALERTS OR EQUIPMENT BULLETINS AT THE RIG SITE IN ACCORDANCE WITH 17.12 AND 18.12?**

Authority: 30 CFR 250.517(h)

Enforcement Action: S

INSPECTION PROCEDURE:

Verify that operator has copies of equipment manufacturers' product alerts or equipment bulletins at the rig site and readily made available to BSEE upon request.

IF NONCOMPLIANCE EXISTS:

Issue a rig shut-in (S) INC if operator does not have copies of equipment manufacturers' product alerts or equipment bulletins at the rig site and are not made available to BSEE upon request.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per inspection.