

WELL-COMPLETION OPERATIONS

(Last update – 2012)

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 facility 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 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 operator did not receive approval from 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 rig 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 rig-floor 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 rig 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

(Last update - 2012)

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 250.515(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 rig 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 250.515(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 rig if the BOP system is not as required.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per facility inspected

C-116

DOES THE BOP SYSTEM FOR WELL-COMPLETION OPERATIONS INCLUDE DUAL PIPE RAMS INSTALLED ON ONE OF THE PIPE-RAM PREVENTERS WHEN DUAL TUBING STRINGS ARE BEING HANDLED SIMULTANEOUSLY?

Authority: 30 CFR 250.515(b)(2)

Enforcement Action: S

INSPECTION PROCEDURE:

For completion operations when dual tubing strings are being handled simultaneously, visually inspect the BOP system to verify that dual pipe rams are installed in one of the pipe ram preventers.

IF NONCOMPLIANCE EXISTS:

Issue a facility shut-in (S) INC for the completion rig if dual pipe rams are not installed in one of the pipe ram preventers when dual tubing strings are being handled simultaneously.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per facility inspected

C-117

WHEN TAPERED DRILL STRING IS USED, DOES THE BOP SYSTEM INCLUDE AT LEAST FOUR PREVENTERS WHEN THE EXPECTED SURFACE PRESSURE IS LESS THAN 5,000 PSI?

Authority: 30 CFR 250.515(b)(3)(i)

Enforcement Action: S

INSPECTION PROCEDURE:

For completion operations using tapered drill string where the anticipated surface pressure is less than 5,000 psi, visually inspect the BOP system to verify the installation of at least four preventers as follows:

1. One annular preventer.
2. Two sets of pipe rams as follows:
 - A. One set capable of sealing around the larger size drill string, and
 - B. One set capable of sealing around the smaller size drill string.
- Note:** One set of variable bore rams may be substituted for the two sets of pipe rams.
3. One set of blind or blind-shear rams.

IF NONCOMPLIANCE EXISTS:

Issue a facility shut-in (S) INC for the completion rig if the BOP system is not configured as described above.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per facility inspected

C-118

WHEN TAPERED DRILL STRING IS USED, DOES THE BOP SYSTEM INCLUDE AT LEAST FIVE PREVENTERS, WHEN THE EXPECTED SURFACE PRESSURE IS 5,000 PSI OR GREATER?

Authority: 30 CFR 250.515(b)(4)

Enforcement Action: S

INSPECTION PROCEDURE:

For completion operations using tapered drill string where the anticipated surface pressure is equal to or greater than 5,000 psi, visually inspect the BOP system to verify the installation of at least five preventers as follows:

1. One annular preventer.
2. Two sets of pipe rams capable of sealing around the larger size drill string.
3. One set of pipe rams capable of sealing around the smaller size drill string.
4. One set of blind or blind-shear rams.

Note: One set of variable bore pipe rams may be substituted for one set of pipe rams for the larger size drill string and one set of pipe rams for the smaller size drill string.

IF NONCOMPLIANCE EXISTS:

Issue a facility shut-in (S) INC for the completion rig if the BOP system is not configured as described above.

INSPECTION COUNT/ INC COUNT:

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

C-119

DOES THE ACCUMULATOR SYSTEM PROVIDE SUFFICIENT CAPACITY TO SUPPLY 1.5 TIMES THE VOLUME NECESSARY TO CLOSE ALL BOP EQUIPMENT UNITS WITH A MINIMUM PRESSURE OF 200 PSI ABOVE THE PRECHARGE PRESSURE, WITHOUT ASSISTANCE FROM A CHARGING SYSTEM?

Authority: 30 CFR 250.515(c)(1)

Enforcement Action: S

INSPECTION PROCEDURE:

1. Verify that the BOP actuating system is installed as approved.
2. Verify that the complete system is free of leaks and that all components are in service (not bypassed).
3. Witness automatic operation of the charging system.

Note: Refer to Appendix 23 for typical surface stack accumulator size calculations.

IF NONCOMPLIANCE EXISTS:

Issue a facility shut-in (S) INC for the completion rig if the hydraulic BOP actuating system does not provide sufficient capacity to supply 1.5 times the volume necessary to close all BOP components with a minimum pressure of 200 psi above the precharge pressure.

INSPECTION COUNT/ INC COUNT:

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

C-120

DOES THE BOP SYSTEM FOR WELL-COMPLETION OPERATIONS CONTAIN A SECONDARY POWER SOURCE, INDEPENDENT FROM THE PRIMARY POWER SOURCE, WITH SUFFICIENT CAPACITY TO CLOSE ALL BOP SYSTEM COMPONENTS AND HOLD THEM CLOSED?

Authority: 30 CFR 250.515(c)(2)

Enforcement Action: S

INSPECTION PROCEDURE:

1. Verify that the backup power source is independent from the primary power source.
2. Witness operation of the accumulator backup system and verify that the backup system automatically charges the accumulators sufficiently to close and hold closed all BOP system components.

IF NONCOMPLIANCE EXISTS:

Issue a facility shut-in (S) INC for the workover rig if:

1. The backup power system is not independent from the primary power source.
2. The accumulator backup does not automatically charge the accumulator system sufficiently to close and hold closed all system components.

INSPECTION COUNT/ INC COUNT:

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

C-121

DOES THE BOP SYSTEM FOR WELL-COMPLETION OPERATIONS CONTAIN LOCKING DEVICES FOR THE RAM TYPE PREVENTERS?

Authority: 30 CFR 250.515(c)(3)

Enforcement Action: S

DEFINITION:

Locking devices - Surface BOP systems shall have dogs provided on the ram-type preventers. Subsurface BOP systems shall have ram lock-out indicator lights or other indication method as approved.

INSPECTION PROCEDURE:

1. Visually inspect surface BOP systems and subsea BOP panels to verify that locking devices have been provided on ram-type preventers.
2. If conditions permit, witness operation of locking devices.

IF NONCOMPLIANCE EXISTS:

Issue a component shut-in (S) INC for the completion rig if operable locking devices are not provided.

INSPECTION COUNT/ INC COUNT:

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

C-122

DOES THE BOP SYSTEM FOR WELL-COMPLETION OPERATIONS CONTAIN AT LEAST ONE REMOTE BOP CONTROL STATION AND ONE BOP CONTROL STATION ON THE RIG FLOOR?

Authority: 30 CFR 250.515(c)(4)

Enforcement Action: S

DEFINITION:

Remote BOP control station - A control panel located such that the operation of each preventer and control valve can be controlled from a readily accessible point at a safe distance from the rig floor.

INSPECTION PROCEDURE:

1. Verify that a readily accessible remote BOP control station exists at the rig site.
2. Verify that a BOP control station exists on the rig floor.
3. Witness the operation of both control stations or inspect the control panel gauge for presence of operating control pressure.

IF NONCOMPLIANCE EXISTS:

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

1. An operable remote BOP control station is not installed.
2. An operable BOP control station is not installed on the rig floor.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each control station inspected.

C-123

DOES THE BOP SYSTEM FOR WELL-COMPLETION OPERATIONS CONTAIN A CHOKE LINE AND A KILL LINE EACH EQUIPPED WITH TWO FULL OPENING VALVES AND A CHOKE MANIFOLD?

Authority: 30 CFR 250.515(c)(5)

Enforcement Action: S

INSPECTION PROCEDURE:

1. Visually verify that each choke and kill line is equipped with two full-opening valves and a choke manifold.
2. Conditions permitting, witness the operation of the valves.

IF NONCOMPLIANCE EXISTS:

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

1. The choke and kill lines are not equipped with two operable full opening valves.
2. There is no manifold.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each line inspected.

C-124

DOES THE BOP SYSTEM FOR WELL-COMPLETION OPERATIONS CONTAIN AT LEAST ONE REMOTELY-CONTROLLED VALVE EACH ON THE CHOKE LINE AND ON THE KILL LINE?

Authority: 30 CFR 250.515(c)(5)

Enforcement Action: S

INSPECTION PROCEDURE:

Visually inspect the choke and kill lines to determine if they are each equipped with at least one remotely-controlled valve.

Note: For the kill line (surface systems only), a check valve may be installed on the kill line in lieu of the remotely-controlled valve provided two readily accessible manual valves are in place, and the check valve is placed between the manual valves and the pump.

IF NONCOMPLIANCE EXISTS:

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

1. The choke line is not equipped with at least one remotely-controlled valve.
2. The kill line is not equipped with at least one remotely-controlled valve.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each line inspected.

C-125

IS THE PRESSURE RATING OF THE CHOKE AND KILL LINE AND ASSOCIATED EQUIPMENT AT LEAST EQUIVALENT TO THE PRESSURE RATING OF THE RAM PREVENTERS?

Authority: 30 CFR 250.515(c)(5)

Enforcement Action: S

INSPECTION PROCEDURE:

Visually verify that all equipment has a rated working pressure at least equal to the rated working pressure of the ram preventers by examining the rating tags.

IF NONCOMPLIANCE EXISTS:

Issue a facility shut-in (S) INC for the completion rig if any equipment does not have a rated working pressure at least equal to the rated working pressure of the ram type preventers.

INSPECTION COUNT/ INC COUNT:

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

C-126

IS AN INSIDE BOP OR SPRING-LOADED, BACK-PRESSURE SAFETY VALVE AND AN ESSENTIALLY FULL-OPENING, WORK-STRING SAFETY VALVE IN THE OPEN POSITION BEING MAINTAINED ON THE RIG FLOOR AT ALL TIMES DURING WELL-COMPLETION OPERATIONS?

Authority: 30 CFR 250.515(d)

Enforcement Action: S

INSPECTION PROCEDURE:

1. Verify that the inside BOP and drill-string safety valves fitting all sizes of pipe in the drill-string are available on the rig floor and are operable.
2. Verify that the inside BOP and drill-string safety valves have a rated working pressure equal to or greater than the rated working pressure of the BOP stack in use.
3. Visually confirm that the inside BOP and drill-string safety valves are in the open position.

IF NONCOMPLIANCE EXISTS:

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

1. The required inside BOP and drill-string safety valve are not available on the rig floor.
2. The valves are not maintained in the open position.
3. The valves do not have a rated working pressure equal to or greater than the rated working pressure of the BOP stack in use.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each valve inspected.

C-127

IS A WRENCH FITTING THE WORK-STRING SAFETY VALVE(S) READILY AVAILABLE?

Authority: 30 CFR 250.515(d)

Enforcement Action: S

INSPECTION PROCEDURE:

Verify that wrenches to fit each valve in use are available in the rig floor area.

IF NONCOMPLIANCE EXISTS:

Issue a facility shut-in (S) INC for the completion rig if the wrenches are not readily available.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each valve inspected.

C-128

ARE CONNECTIONS READILY AVAILABLE FOR INSERTING VALVES IN THE WORK STRING?

Authority: 30 CFR 250.515(d)

Enforcement Action: S

INSPECTION PROCEDURE:

Verify that connections are readily available for inserting valves in the work string.

IF NONCOMPLIANCE EXISTS:

Issue a facility shut-in (S) INC for the completion rig if connections are not readily available for inserting valves in the work string.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each valve inspected.

BOP TESTS, ACTUATORS, INSPECTIONS, AND MAINTENANCE

(Last update - February 2001)

C-129

PRIOR TO CONDUCTING HIGH-PRESSURE TESTS, ARE ALL BOP SYSTEMS TESTED TO A LOW PRESSURE OF 200 PSI TO 300 PSI?

Authority: 30 CFR 250.516(b)(1)

Enforcement Action: W/S

INSPECTION PROCEDURE:

1. Verify that a low-pressure test on BOP equipment was conducted prior to a high-pressure test and that the test was conducted in accordance with the specified requirements. (see Appendix 23).
2. If inspection is being performed during commencement of testing of BOP system, confirm operator's compliance with low-pressure testing requirements.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if a low-pressure test was missed, but subsequently performed.

Issue a facility shut-in (S) INC for drilling operations on a production platform when records indicate a low-pressure test was not performed prior to a high-pressure test and/or the test was not performed as required (see Appendix 23).

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each BOP system inspected.

C-130

HAVE THE RAM-TYPE BOPS, CHOKE MANIFOLD, AND OTHER BOP EQUIPMENT BEEN TESTED TO A PRESSURE EQUAL TO THE RATED WORKING PRESSURE OF THE EQUIPMENT (OR AS OTHERWISE APPROVED BY THE DISTRICT MANAGER)?

Authority: 30 CFR 250.515(c)(5)

Enforcement Action: W/S

30 CFR 250.516(b)

30 CFR 250.516(j)

INSPECTION PROCEDURE:

1. Inspect operator's log to verify that pressure tests have been performed on rams and related equipment.
2. Verify that tests have been performed to the rated working pressure of the BOP equipment or as otherwise approved by the District Manager.
3. Witness tests if performed during the inspection.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if rams and related control equipment have been tested, to less than minimum requirements, but were later met by a subsequent test.

Issue a facility shut-in (S) INC for the completion rig if the rams and related control equipment have not been tested as required.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each BOP system inspected.

C-131

HAVE VARIABLE BORE RAMS BEEN PRESSURE TESTED AGAINST ALL SIZES OF PIPE IN THE WELL EXCLUDING DRILL COLLARS?

Authority: 30 CFR 250.516(d)(6)

Enforcement Action: W/S

INSPECTION PROCEDURE:

1. Inspect operator's log to verify that tests have been conducted.
2. Witness the test if it is performed during the inspection.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if records indicate that the rams were not tested against all sizes of pipe in the well, but a subsequent test included all sizes of pipe.

Issue a facility shut-in (S) INC for the completion rig if the tests have not been conducted as required.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each BOP system inspected.

C-132

HAVE SURFACE BOP SYSTEMS BEEN PRESSURE TESTED WITH WATER?

Authority: 30 CFR 250.516(d)(1)

Enforcement Action: W/S

INSPECTION PROCEDURE:

1. Inspect operator's log to verify that pressure tests on surface BOP systems were conducted with water.
2. Witness the test if it is conducted during inspection.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if records indicate that the surface BOP system was not pressure tested with water in the past, but subsequent test was conducted with water.

Issue a facility shut-in (S) INC for the completion rig if the surface BOP system has not been tested with water.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each BOP system inspected

C-133

HAS THE ANNULAR-TYPE BOP BEEN SUCCESSFULLY TESTED AT 70 PERCENT OF ITS RATED WORKING PRESSURE (OR AS OTHERWISE APPROVED BY THE DISTRICT MANAGER)?

Authority: 30 CFR 250.516(b)(3)

Enforcement Action: W/S

INSPECTION PROCEDURE:

1. Determine the rated working pressure of the annular-type BOP by visually inspecting the body of the preventer for a rating stamping or tag.
2. Inspect the operator's log to verify that the annular-type preventers were pressure tested to 70 percent of the rated working pressure, or as otherwise approved by the District Manager.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if records indicate that pressure test was not performed to 70 percent of the rated working pressure of the annular-type preventer, but subsequent test was performed to 70 percent of the rated working pressure.

Issue a facility shut-in (S) INC for the completion rig if the annular-type preventers were not tested to 70 percent of the rated working pressure.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each BOP system inspected.

C-134

HAS EACH VALVE IN THE CHOKE AND KILL MANIFOLDS BEEN SUCCESSFULLY, SEQUENTIALLY PRESSURE TESTED TO THE RAM-TYPE BOP TEST PRESSURE?

Authority: 30 CFR 250.515(c)(5)

Enforcement Action: W/S

INSPECTION PROCEDURE:

1. Inspect operator's log to verify that each valve in the choke and kill manifolds has been sequentially tested to the ram-type BOP test pressure.
2. Witness actual tests if being performed during inspection.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if the valves have been tested to less than the BOP test pressure, but were later tested to the BOP test pressure.

Issue a facility shut-in (S) INC for the completion rig if the valves have not been tested to the ram-type test pressure.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each BOP system inspected.

**HAVE THE BOP SYSTEMS BEEN TESTED WHEN INSTALLED AND VERIFY THAT ON
SUBSEA STACK THEY ARE TESTED WITHIN 30 DAYS OF THE STUMP TEST ?**

Authority: 30 CFR 250.516(a)(1)

Enforcement Action: W/S

30 CFR 250.517(d)(2)

INSPECTION PROCEDURE:

1. Inspect operator's log to verify that tests were performed when the BOP system was initially installed.
2. Witness the tests if they are being performed during the inspection.

IF NONCOMPLIANCE EXISTS:

Issue a warning (**W**) INC if operations have commenced without the initial tests but subsequent tests have been performed.

Issue a component shut-in (**S**) INC for the completion rig if installation has been accomplished and no tests have been performed.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each BOP system inspected.

C-136

HAVE THE BOP SYSTEMS BEEN TESTED BEFORE 14 DAYS HAD ELAPSED SINCE THE LAST BOP PRESSURE TEST?

Authority: 30 CFR 250.516(a)(2)

Enforcement Action: W/S

INSPECTION PROCEDURE:

Inspect operations log to verify that tests were performed at least every 14 days.

Note:

1. More than 14 days between tests is allowed when:
 - A. Well operations prevent testing due to problems such as:
 - 1 Stuck pipe.
 2. Pressure control operations.
 3. Remedial well efforts.
 - B. The tests shall be conducted as soon as possible after the problem is solved but before normal operations resume.
2. The reason for postponing testing shall be entered into the operations log.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if records indicate that tests other than most recent test exceeded the 14-day interval required without acceptable explanation in the operator's log.

Issue a facility shut-in (S) INC for the completion rig if the date of most recent test exceeds the 14 days and acceptable explanation is not entered in the operator's log.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each BOP system inspected.

C-137

HAVE THE BLIND/BLIND-SHEAR RAMS BEEN PRESSURE TESTED AT LEAST ONCE EVERY 30 DAYS?

Authority: 30 CFR 250.516(d)(4)

Enforcement Action: W/S

INSPECTION PROCEDURE:

1. Inspect operator's log to verify that the blind or blind-shear rams have been tested at least once every 30 days.
2. If inspection is being performed during testing of the blind or blind-shear rams, witness the test.

Note: A longer period between blowout preventer tests is allowed when there is a stuck pipe or pressure-control operation and remedial efforts are being performed. The tests shall be conducted as soon as possible and before normal operations resume. The reason for postponing testing shall be entered into the operations log.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if records indicate that tests other than most recent test exceeded the 30-day requirement.

Issue a facility shut-in (S) INC for the completion rig if a test has not been conducted in the last 30 days.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each BOP system inspected.

C-138

HAVE THE BOP SYSTEMS BEEN TESTED FOLLOWING REPAIRS THAT REQUIRE DISCONNECTING A PRESSURE SEAL IN THE ASSEMBLY?

Authority: 30 CFR 250.516(d)(7)

Enforcement Action: W/S

Note: Only the affected seal need be pressure tested.

INSPECTION PROCEDURE:

Inspect operator's log to verify that, where repairs required disconnection of pressure seals, tests on affected seals were conducted.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if records indicate that operations commenced without tests being conducted on the seals, but subsequent BOP tests were conducted.

Issue a facility shut-in (S) INC for the completion rig if no tests were conducted on the seals following repairs.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each BOP system inspected.

- C-139 DO THE TESTS ALTERNATE BETWEEN CONTROL STATIONS AND AT STAGGERED INTERVALS TO ALLOW EACH CREW TO OPERATE THE EQUIPMENT?**
Authority: 30 CFR 250.516(d)(3) Enforcement Action: W/S
INSPECTION PROCEDURE:
1. Inspect operator's log to verify that each crew has been allowed to operate the equipment during tests.
2. Verify that all control stations are functional.
3. 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 BOP DRILL TO FAMILIARIZE CREW MEMBERS WITH APPROPRIATE SAFETY MEASURES?**
Authority: 30 CFR 250.516(f) Enforcement Action: W
INSPECTION PROCEDURE:
Inspect operator's log to verify that all personnel are participating in weekly well-control drills and that they have been recorded.
Note: The operator may be instructed to conduct a BOP 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 BOP 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 250.516(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 is 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?**
Authority: 30 CFR 250.517(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.

- C-147** **IS THE CONTROL STATION USED DURING THE TEST IDENTIFIED IN THE OPERATIONS LOG OR REFERENCED DOCUMENTS?**
Authority: 30 CFR 250.516(i)(4) **Enforcement Action: W**
INSPECTION PROCEDURE:
Check the operations log or referenced document to verify that the control station used during the test is identified.
IF NONCOMPLIANCE EXISTS:
Issue a warning (W) INC if the control station used during the test is not identified in the operations log or referenced document.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.
- C-148** **FOR SUBSEA SYSTEMS, IS THE POD USED DURING THE TEST IDENTIFIED IN THE OPERATIONS LOG OR REFERENCED DOCUMENTS?**
Authority: 30 CFR 250.516(i)(4) **Enforcement Action: W**
INSPECTION PROCEDURE:
Check the operations log or referenced documents to verify that the pod used during the test is identified.
IF NONCOMPLIANCE EXISTS:
Issue a warning (W) INC if the pod used during the test is not identified in the operations log or referenced documents.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.
- C-149** **ARE ANY PROBLEMS OR IRREGULARITIES OBSERVED DURING BOP AND AUXILIARY EQUIPMENT TESTING AND ANY ACTIONS TAKEN TO REMEDY SUCH PROBLEMS OR IRREGULARITIES RECORDED IN THE OPERATIONS LOG OR REFERENCED DOCUMENT?**
Authority: 30 CFR 250.516(i)(5) **Enforcement Action: W**
INSPECTION PROCEDURE:
Check the operations log or referenced document to verify that problems or irregularities observed during BOP and auxiliary equipment testing and actions taken to remedy such problems or irregularities are recorded.
IF NONCOMPLIANCE EXISTS:
Issue a warning (W) INC if problems or irregularities observed during the testing of BOP and auxiliary equipment and actions taken to remedy such problems or irregularities are not recorded in the operations log or referenced documents.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.
- C-150** **ARE ALL RECORDS INCLUDING PRESSURE CHARTS, OPERATIONS LOG, AND REFERENCED DOCUMENTS OF BOP TESTS, ACTUATIONS, AND INSPECTIONS AVAILABLE AT THE FACILITY FOR THE DURATION OF THE WELL-COMPLETION ACTIVITY?**
Authority: 30 CFR 250.516(i)(6) **Enforcement Action: W**
INSPECTION PROCEDURE:
Verify that all records including pressure charts, operations logs, and referenced documents of BOP tests, actuations, and inspections are available at the facility for the duration of the well-completion activity by asking the operator's representative to see them.
IF NONCOMPLIANCE EXISTS:
Issue a warning (W) INC if all records of BOP tests, actuations, and inspections including pressure charts, operations logs, and referenced documents are not available at the facility for the duration of the well-completion activity.
INSPECTION COUNT/ INC COUNT:
Enter one item checked/ issue one INC per facility inspected.

C-155

DID OPERATOR PROVIDE BSEE REPRESENTATIVE THE REQUIRED PRIOR NOTICE TO ALLOW FOR THE WITNESSING AND/OR TESTING OR INSPECTIONS PRIOR TO THE STUMP TEST AND INITIAL TEST ON THE SEAFLOOR?

**Authority: 30 CFR 250.515(d)(2)(ii)
30 CFR 250.517(d)(8)(ii)**

Enforcement Action: S

Check records to verify operator notified District Manager 72 hours in advance and provided access to the testing and inspection location.

IF NONCOMPLIANCE EXISTS:

Issue a facility shut-in (S) INC if operators did not notify BSEE District Manager and provide access to the location to witness testing and inspection.

INSPECTION COUNT/INC COUNT:

Enter one item checked/ issue one INC per testing or inspection.

C-156

ARE ANNULAR AND RAM BOP'S FUNCTION TESTED EVERY 7 DAYS BETWEEN 14 DAY BOP PRESSURE TESTS?

**Authority: 30CFR 250.516(a) (2)
30CFR 250.516(d) (5)**

Enforcement Action: W/S

INSPECTION PROCEDURE:

1. Verify that annular and ram BOP's have been function tested between pressure tests.
2. Witness function test if performed during the inspection.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if function test was not conducted, but subsequent function test was conducted. Issue a rig shut-in (S) INC if annular and ram have not been function tested in the past 7 days.

INSPECTION COUNT/ INC COUNT:

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

ESD SYSTEM

(Last update - August 2009)

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: C

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 component shut-in (C) 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/ACTUATION/INSPECTION AND MAINTENANCE

(Last update - 2012)

C-170

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

Authority: 30 CFR 250.515(b) (5)

Enforcement Action: S

30 CFR 250.442(a)

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 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-171

DOES THE BOP SYSTEM FOR WELL COMPLETION OPERATIONS INCLUDE OPERABLE DUAL-POD CONTROL SYSTEMS TO ENSURE PROPER AND INDEPENDENT OPERATION?

Authority: 30 CFR 250.515(e)

Enforcement Action: S

30 CFR 250.442(b)

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 250.515(e)

Enforcement Action: S

30 CFR 250.442(c)

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 250.515(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 1,225psi.

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 ACCULUMATOR 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 250.515(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 250.515(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. the ROV intervention functions on the subsea BOP stack during the stump test.
 - b. the testing at least one set of rams during the initial test on the seafloor.
 - c. the 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 250.515(e)

Enforcement Action: S

30 CFR 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

1. Operator provided an autoshear and deadman systems for dynamically positioned rigs when drilling.

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 drilling.

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 250.515(e)

Enforcement Action: W

30 CFR 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.

C-178

DID THE OPERATOR CLEARLY LABEL ALL CONTROL PANELS FOR THE SUBSEA BOP SYSTEM FOR WELL COMPLETION OPERATIONS?

Authority: 30 CFR 250.515(e)

Enforcement Action: W

30 CFR 250.442(h)

INSPECTION PROCEDURE:

Verify that operator clearly label all control panels for the subsea BOP system.

Note: Depress test lights by depressing pushbutton on control panel to verify that the lights on the control panel are working properly to identify potential problems.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if operator did not clearly label all control panels for the subsea BOP system.

INSPECTION COUNT/ INC COUNT

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

C-179 **DID THE OPERATOR DEVELOP AND USE A MANAGEMENT SYSTEM FOR OPERATING THE SUBSEA BOP SYSTEM, WHICH INCLUDES PROCEDURES FOR PREVENTION OF ACCIDENTAL OR UNPLANNED DISCONNECTS OF SYSTEM FOR WELL COMPLETION OPERATIONS?**

Authority: 30 CFR 250.515(e)
30 CFR 250.442(i)

Enforcement Action: S

INSPECTION PROCEDURE:

1. Verify that management has written procedures for operating BOP stack and LMRP (including techniques to prevent accidental disconnections of these components).
2. Check all remote BOP control stations for by-pass to ensure all BOP functions work as designed.

IF NONCOMPLIANCE EXISTS:

Issue a rig shut-in (S) if

1. Operator does not have written procedures for operating BOP stack and LMRP (including techniques to prevent accidental disconnections of these components).
2. If any BOP control stations functions are in by-pass.

INSPECTION COUNT/ INC COUNT

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

C-180 **DO THE RECORDS INDICATE THAT THE WELL-CELLAR IS AT THE APPROVED DEPTH TO ENSURE THAT THE TOP OF THE STACK IS BELOW THE DEEPEST PROBABLE ICE-SCOUR DEPTH FOR WELL COMPLETION OPERATIONS?**

Authority: 30 CFR 250.515(e)
30 CFR 250.442(l)

Enforcement Action: S

INSPECTION PROCEDURE:

Check records to ensure that the well-cellar is at the approved depth.

IF NONCOMPLIANCE EXISTS:

Issue a rig shut-in (S) INC if the well-cellar has not been excavated to the approved depth.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each well inspected.

C-181 **IS THE MARINE RISER DISPLACED WITH SEA WATER PRIOR TO REMOVAL FOR WELL COMPLETION OPERATIONS?**

Authority: 30 CFR 250.515(e)
30 CFR 250.442(k)

Enforcement Action: W

Note: Sufficient hydrostatic pressure must be maintained or other suitable precautions must be taken to compensate for the reduction in pressure and to maintain a safe and controlled well condition.

INSPECTION PROCEDURE:

Verify that the riser was properly displaced before removal.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if records indicate the riser was not displaced with seawater.

INSPECTION COUNT/ INC COUNT:

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

BLOWOUT PREVENTER SYSTEM TESTS, INSPECTIONS, AND MAINTENANCE
LAST UPDATE - 2012

- 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. 516 (d)(6) **Enforcement Action: W/S**
INSPECTION PROCEDURE:
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 OPERATOR TEST AT LEAST ONE SET OF RAMS ON THE SUBSEA BOP STACK 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 pipe 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 AND THE INITIAL TEST ON THE SEA FLOOR?**
Authority: 30 CFR 250.517(d) (9) **Enforcement Action: C**
INSPECTION PROCEDURE:
1. Verify that the function test on autoshear and deadman systems during stump test.
2. Verify 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 (C) 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 250.516(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, CHOKES, 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 SECTION 17.10 AND 18.10?**
Authority: 30 CFR 250. 30 CFR 250.516(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 manufacturer's 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 manufacturer's
Note: Records must be maintained on the rig for two years or from the date of your 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.

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)
30 CFR 250.517(h)(i)**

Enforcement Action: W

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.

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 250.516(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 250.516(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 250.516(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 BOEMRE 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 BOEMRE upon request.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC per inspection.