WELL-COMPLETIONS
LAST UPDATE MAY, 2008
WELL-COMPLETION OPERATIONS

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: 502 **Enforcement Action: W/C**

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 component shut-in (**C**) 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: 502 **Enforcement Action: W/C**

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 component shut-in (**C**) 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: 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: 511 **Enforcement Action: C**

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 component shut-in (**C**) 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.
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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: 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-107 **HAS THE LESSEE RECEIVED WRITTEN APPROVAL FROM THE DISTRICT MANAGER PRIOR TO CONDUCTING WELL-COMPLETION OPERATIONS?**

Authority: 505 **Enforcement Action: C**
513(a)

INSPECTION PROCEDURE:

Request proof of written approval from the operator, as follows:

1. Form MMS 123, Application for Permit to Drill, or
2. Form MMS 124, Deepening and Plugging Back of Wells, Sundry Notices and Reports on Wells, signed by the District Manager.

IF NONCOMPLIANCE EXISTS:

Issue a component shut-in (**C**) 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.
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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: 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: 514(b)(1) **Enforcement Action: C**

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 component (**C**) 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 inspection.

C-110 **HAS A RECORDING MUD-PIT LEVEL INDICATOR WITH BOTH A VISUAL AND AN AUDIBLE WARNING DEVICE BEEN INSTALLED, MAINTAINED, AND UTILIZED?**

Authority: 514(b)(3) **Enforcement Action: C**

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 component shut-in (**C**) 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 inspection.

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: 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 are pulled and the hole is 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: 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: 514(b)(2) **Enforcement Action: C**
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 component shut-in (**C**) 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

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: 515(b)(1) **Enforcement Action: C**

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-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 component shut-in (**C**) INC for the completion rig if the BOP system is not as required.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each BOP system 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: 515(b)(2) **Enforcement Action: C**

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-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 component shut-in (**C**) INC for the completion rig if the BOP system is not as required.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each BOP system 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: 515(b)(3) **Enforcement Action: C**

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 component shut-in (**C**) 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 for each BOP system 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: 515(b)(4) **Enforcement Action: C**

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-shear rams.

IF NONCOMPLIANCE EXISTS:

Issue a component shut-in (**C**) 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 for each BOP system inspected.

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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: 515(b)(4) **Enforcement Action: C**

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-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 component shut-in (**C**) 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 for each BOP system inspected.

C-119 **DOES THE ACCUMULATOR SYSTEM PROVIDE SUFFICIENT CAPACITY TO SUPPLY 1.5 TIMES THE VOLUME NECESSARY TO CLOSE AND HOLD CLOSED ALL BOP EQUIPMENT UNITS WITH A MINIMUM PRESSURE OF 200 PSI ABOVE THE PRECHARGE PRESSURE, WITHOUT ASSISTANCE FROM A CHARGING SYSTEM?**

Authority: 515(c)(1) **Enforcement Action: C**

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 component shut-in (**C**) 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 for each 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: 515(c)(2) **Enforcement Action: C**

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 component shut-in (**C**) 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 for each BOP system inspected.

C-121 **DOES THE BOP SYSTEM FOR WELL-COMPLETION OPERATIONS CONTAIN LOCKING DEVICES FOR THE RAM TYPE PREVENTERS?**

Authority: 515(c)(3) **Enforcement Action: C**

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 (**C**) INC for the completion rig if operable locking devices are not provided.

INSPECTION COUNT/ INC COUNT:

Enter one item checked/ issue one INC for each 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: 515(c)(4) **Enforcement Action: C**

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 component shut-in (**C**) 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: 515(c)(5) **Enforcement Action: C**

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 component shut-in (**C**) 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: 515(c)(5) **Enforcement Action: C**

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 component shut-in (**C**) 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: 515(c)(5) **Enforcement Action: C**

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 component shut-in (**C**) 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: 515(d) **Enforcement Action: C**

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 component shut-in (**C**) 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: 515(d) **Enforcement Action: C**

INSPECTION PROCEDURE:

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

IF NONCOMPLIANCE EXISTS:

Issue a component shut-in (**C**) 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: 515(d) **Enforcement Action: C**

INSPECTION PROCEDURE:

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

IF NONCOMPLIANCE EXISTS:

Issue a component shut-in (**C**) 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

C-129 **PRIOR TO CONDUCTING HIGH-PRESSURE TESTS, ARE ALL BOP SYSTEMS TESTED TO A LOW PRESSURE OF 200 PSI TO 300 PSI?**

Authority: 516(b)(1) **Enforcement Action: W/C**

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 component shut-in (**C**) 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: 515(c)(5) **Enforcement Action: W/C**
515(b)(2)
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 component shut-in (**C**) 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: 516(d)(6) **Enforcement Action: W/C**

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 component shut-in (**C**) 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.
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C-132 **HAVE SURFACE BOP SYSTEMS BEEN PRESSURE TESTED WITH WATER?**

Authority: 516(d)(1) **Enforcement Action: W/C**

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 component shut-in (**C**) 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

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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: 516(b)(3) **Enforcement Action: W/C**

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 component shut-in (**C**) 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.

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C-134 **HAS EACH VALVE IN THE CHOKE AND KILL MANIFOLDS BEEN SUCCESSFULLY, PRESSURE TESTED TO THE RAM-TYPE BOP TEST PRESSURE?**

Authority: 516 **Enforcement Action: W/C**

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 component shut-in (**C**) 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.

C-135 **HAVE THE BOP SYSTEMS BEEN TESTED WHEN INSTALLED?**

Authority: 516(a)(1) **Enforcement Action: W/C**

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 (**C**) 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: 516(a)(2) **Enforcement Action: W/C**

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 component shut-in (**C**) 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-SHEAR RAMS BEEN PRESSURE TESTED AT LEAST ONCE EVERY 30 DAYS?**

Authority: 516(d)(4) **Enforcement Action: W/C**

INSPECTION PROCEDURE:

1. Inspect operator's log to verify that the blind-shear rams have been tested at least once every 30 days.
2. If inspection is being performed during testing of the 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 component shut-in (**C**) 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: 516(d)(7) **Enforcement Action: W/C**

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 component shut-in (**C**) 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: 516(d)(3) 516(f) **Enforcement Action: W/C**

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 component shut-in (**C**) 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: 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: 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: 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-143 **ARE BOP TEST PRESSURES RECORDED ON A PRESSURE CHART?**

Authority: 516(i)(1) **Enforcement Action: W**
516(j)

INSPECTION PROCEDURE:

1. Verify that the BOP test pressures have been recorded on a pressure chart by requesting to view the actual chart.
2. Prior to inspection, check office records to determine if the District Manager has approved an alternate method of recording BOP test pressures.

IF NONCOMPLIANCE EXISTS:

Issue a warning (**W**) INC if the BOP test pressures have not been recorded on a pressure chart or alternative method approved by the District Manager.

INSPECTION COUNT/ INC COUNT:

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

C-144 **IS THE TEST INTERVAL FOR EACH BOP COMPONENT TESTED FOR A MINIMUM OF 5 MINUTES TO DEMONSTRATE THAT THE COMPONENT IS EFFECTIVELY HOLDING PRESSURE?**

Authority: 516(c) **Enforcement Action: W**
516(c)(1)

INSPECTION PROCEDURE:

Verify that each BOP component held pressure for at least five minutes or other time period approved by the District Manager by checking the pressure charts or alternative documentation as approved by the District Manager.

IF NONCOMPLIANCE EXISTS:

Issue a warning (**W**) INC if the pressure charts or other documentation indicate that each BOP component did not hold pressure for at least five minutes or other time period approved by the District Manager.

INSPECTION COUNT/ INC COUNT:

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

C-145 **ARE BOP TEST PRESSURE CHARTS CERTIFIED AS CORRECT BY THE OPERAT0R'S REPRESENTATIVE AT THE FACILITY?**

Authority: 516(i)(2) **Enforcement Action: W**

INSPECTION PROCEDURE:

Verify that each pressure chart contains a written certification (signature and date) by the operator's representative at the facility.

IF NONCOMPLIANCE EXISTS:

Issue a warning (**W**) INC if any pressure chart does not contain a written certification by the operator's representative at the facility.

INSPECTION COUNT/ INC COUNT:

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

C-146 **DOES THE DOCUMENTATION INDICATE THE SEQUENTIAL ORDER OF BOP AND AUXILIARY EQUIPMENT TESTING AND THE PRESSURE AND DURATION OF EACH TEST?**

Authority: 516(i)(3) **Enforcement Action: W**

INSPECTION PROCEDURE:

Check the operations log or referenced document to verify that the sequential order of BOP and auxiliary equipment testing and the pressure and duration of each test is recorded.

IF NONCOMPLIANCE EXISTS:

Issue a warning (**W**) INC if the documentation does not indicate the sequential order of BOP and auxiliary equipment testing and the pressure and duration of each test.

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: 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: 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: 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: 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-151 **ARE ALL SUCH RECORDS RETAINED FOR A PERIOD OF TWO YEARS AT THE FACILITY, AT THE LESSEE'S FIELD OFFICE NEAREST THE FACILITY, OR AT ANOTHER LOCATION CONVENIENTLY AVAILABLE TO THE DISTRICT MANAGER?**

Authority: 516(i)(7) **Enforcement Action: W**

INSPECTION PROCEDURE:

Verify that all such records are available by asking the operator's representative for them.

IF NONCOMPLIANCE EXISTS:

Issue a warning (**W**) INC if the records are not conveniently available.

INSPECTION COUNT/ INC COUNT:

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

C-152 **ARE ACCUMULATOR REGULATORS SUPPLIED BY RIG AIR, AND WITHOUT A SECONDARY SOURCE OF PNEUMATIC SUPPLY, EQUIPPED WITH MANUAL OVERRIDES, OR ALTERNATELY, ARE OTHER DEVICES PROVIDED TO ENSURE CAPABILITY OF HYDRAULIC OPERATIONS IF RIG AIR IS LOST?**

Authority: 515(c)(1) **Enforcement Action: C**

INSPECTION PROCEDURE:

Visually check to see if the accumulator unit is equipped with a fail safe pneumatically operated regulator or a manually operated regulator to ensure uninterrupted functional capability.

IF NONCOMPLIANCE EXISTS:

Issue a component shut-in (**C**) INC for the completion rig if:

1. A manual override is not installed on the air operated regulator, or
2. The regulator is not equipped with a secondary source of air.

INSPECTION COUNT/ INC COUNT:

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

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) **Enforcement Action: W/S**
30CFR 250.516(d)(5)

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

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: 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.

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.