

ABANDONMENT

(Last update - July 2002)

PERMANENT ABANDONMENT

(Last update - July 2002)

A-100

IS ISOLATION OF ZONES IN OPEN HOLE ACHIEVED?

Authority: 1715(a)(1)

Enforcement Action: W

INSPECTION PROCEDURE:

Verify that cement plugs were placed to extend from a minimum of 100 feet below the bottom to 100 feet above the top of any oil, gas, or freshwater zones.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if the cement plugs were not placed as required.

A-101

IS ISOLATION OF THE OPEN HOLE BELOW THE CASING ACHIEVED?

Authority: 1715(a)(2)

Enforcement Action: W

INSPECTION PROCEDURE:

Verify that isolation of open hole below the casing has been achieved by one of the following methods:

1. A cement plug set by the displacement method placed at least 100 feet above and 100 feet below the deepest casing shoe;
2. A cement retainer with effective back-pressure control set 50 to 100 feet above the casing shoe and a cement plug that extends at least 100 feet below the casing shoe and at least 50 feet above the retainer; or
3. For expected or known lost circulation conditions, a bridge plug set 50 to 100 feet above the casing shoe with 50 feet of cement on top of the bridge plug.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if isolation of open hole below the casing has not been achieved.

A-102

IS ISOLATION OF PERFORATED INTERVALS ACHIEVED?

Authority: 1715(a)(3)

Enforcement Action: W

INSPECTION PROCEDURE:

For a perforated zone that is currently open and not previously squeezed or isolated, verify that isolation has been achieved by one of the following methods:

1. A cement plug set by the displacement method at least 100 feet above to 100 feet below the perforated interval, or down to a casing plug, whichever is less.
2. In lieu of 1 above, the following methods are acceptable, provided the perforations are isolated from the hole below:
 - A. A cement retainer with effective back-pressure control set not 50 to 100 feet above the top of the perforated interval, and a cement plug that extends at least 100 feet below the bottom of the perforated interval with 50 feet of cement above the retainer;
 - B. A bridge plug set 50 to 100 feet above the top of the perforated interval and at least 50 feet of cement on top of the bridge plug;
 - C. A through-tubing basket plug set no more than 100 feet above the perforated interval with at least 50 feet of cement on top of the basket plug; or
 - D. A tubing plug set no more than 100 feet above the perforated interval topped with a sufficient volume of cement so as to extend at least 100 feet above the uppermost packer in the wellbore and at least 300 feet of cement in the casing annulus immediately above the packer.
3. Alternately, a method approved by the District Manager to squeeze cement to all perforations (30 CFR 150.1715(3)(i)).

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if perforated intervals have not been isolated.

A-103

IS PLUGGING OF THE STUB ACHIEVED?

Authority: 1715(a)(4)
1715(a)(5)

Enforcement Action: W

Note: For the purpose of this PINC, liner tops are not considered stubs.

INSPECTION PROCEDURE:

1. Where the casing stub is within the casing, verify that plugging is accomplished by one of the following methods:
 - A. A cement plug set at least 100 feet above and 100 feet below the stub;
 - B. A cement retainer or bridge plug set at least 50 to 100 feet above the stub with at least 50 feet of cement on top of the retainer or bridge plug; or
 - C. A cement plug at least 200 feet long with the bottom of the plug set no more than 100 feet above the stub.
2. Where the casing stub is below the casing, verify that plugging is accomplished to isolate zones in open hole or to isolate open hole below the casing, as applicable (30 CFR 250.1715(a)(1) or 30 CFR 250.1715(a)(2)).

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if the casing stub is not plugged as required.

A-104

IS ANY ANNULAR SPACE COMMUNICATING WITH OPEN HOLE AND EXTENDING TO THE MUD LINE PLUGGED AND, IF APPLICABLE, PRESSURE TESTED TO VERIFY ISOLATION?

Authority: 1715(a)(6)

Enforcement Action: W

INSPECTION PROCEDURE:

1. Verify that any annular space communicating with open hole and extending to the mud line is plugged with at least 200 feet of cement.
2. For a well completed above the ocean surface, verify that each plugged annulus is pressure tested to verify isolation.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if the annular space communicating with open hole and extending to the mud line is not plugged and pressure tested as required.

A-105

IS A CEMENT SURFACE PLUG SET IN THE SMALLEST STRING OF CASING WHICH EXTENDS TO THE MUD LINE?

Authority: 1715(a)(8)

Enforcement Action: W

INSPECTION PROCEDURE:

Verify that a cement surface plug, which is at least 150 feet long, has been set with the top of the plug within the first 150 feet below the mud line in the smallest string of casing which extends to the mud line.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if the plug is not set as required.

A-107

IS THE INTEGRITY OF APPLICABLE PLUGS VERIFIED?

Authority: 1715(b)

Enforcement Action: W

INSPECTION PROCEDURE:

Verify that the first plug below the surface plug and any plug placed across a lost circulation zone in open hole has been tested by one of the following methods:

1. A pipe weight of at least 15,000 pounds on the plug; or
2. A pump pressure of 1,000 psi with a resultant pressure drop of no more than 10 percent during a 15-minute testing period.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if the plug integrity has not been verified.

A-108

IS THE DENSITY OF THE FLUID LEFT IN THE HOLE ADEQUATE FOR THE FORMATION INTERVAL?

Authority: 1715(a)(9)

Enforcement Action: W

Note: If applicable, the formation pressure encountered during the drilling of the well should be noted in the driller's report.

INSPECTION PROCEDURE:

Verify that each interval of the hole between the plugs has been filled with a fluid that exerts a hydrostatic pressure that is greater than the formation pressure in the interval.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if records indicate that the intervals between the plugs have not been filled with a fluid of sufficient hydrostatic pressure.

A-109

ARE WELLHEADS AND CASINGS REMOVED AS REQUIRED?

Authority: 1716

Enforcement Action: W

Note: Not applicable of water depth is greater than 800 meters (2,624 feet) or as otherwise approved by the District Manager.

INSPECTION PROCEDURE:

Verify (witness or from records) that wellheads and casings are removed to a depth of at least 15 feet below the mud line.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if the wellheads and casings are not removed as required.

A-110

ARE PERMAFROST AREAS WITHIN THE WELL ABANDONED AS REQUIRED?

Authority: 1715(a)(10)

Enforcement Action: W

INSPECTION PROCEDURE:

1. Verify (from APD, driller's report, cementing plan, logs, etc.) that permafrost areas within the well are identified.
2. Verify that the fluid left in the hole adjacent to permafrost areas has a freezing point below the temperature of the permafrost and is treated to inhibit corrosion.
3. Verify that cement plugs are designed to set before freezing and have a low heat of hydration.

Note: Information on type of fluid, inhibitor, and cement can be verified from operator's Plugging and Abandonment Plan (required by 30 CFR 250.1712).

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if permafrost areas within the well are not abandoned as required.

TEMPORARY ABANDONMENT

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A-114

DOES THE WELL MEET THE PLUGGING AND TESTING REQUIREMENTS FOR PERMANENT ABANDONMENT EXCEPT FOR A SURFACE PLUG, WELLHEAD REMOVAL, AND SITE CLEARANCE?

Authority: 1721

Enforcement Action: W

INSPECTION PROCEDURE:

Verify that temporary abandonment consists of the following:

1. A bridge plug or a cement plug at least 100 feet in length set at the base of the deepest casing string, unless the casing has been cemented and has not been drilled out. If a cement plug is set, it is not necessary for the cement plug to extend below the casing shoe into open hole.
2. One of the following types of plugs set in the casing with the top of the plug no more than 1,000 feet below the mud line:
 - A. A retrievable bridge plug;
 - B. A permanent-type bridge plug; or
 - C. A cement plug at least 100 feet in length.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if the well is not temporary abandoned as required.

A-117

IS THE SUBSEA PROTECTIVE DEVICE INSTALLED AS REQUIRED?

Authority: 1722

Enforcement Action: W

Note: Not applicable in water depths greater than 300 feet.

INSPECTION PROCEDURE:

1. Verify that the subsea protective device is installed in a manner that allows fishing gear to pass over the obstruction without damage to the obstruction, the protective device, or the fisheries gear.
2. Verify that the protective device does not extend more than 10 feet above the seafloor (unless approved otherwise).
3. Verify that trawling over the protective device has been completed and the results reported to the District Manager.

IF NONCOMPLIANCE EXISTS:

Issue a warning (W) INC if the subsea protective device is not installed and trawl tested as required.
