

**UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO OCS REGION**

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NOTICE TO LESSEES AND OPERATORS OF FEDERAL OIL AND GAS LEASES IN THE
OUTER CONTINENTAL SHELF, GULF OF MEXICO OCS REGION

Casing Pressure

This Notice to Lessees and Operators (NTL) provides guidance on evaluating and managing wells that have casing pressure and supersedes the Letter to Lessees and Operators (LTL) titled Policy Concerning Sustained Casing Pressure, dated January 13, 1994, and NTL No. 2005-G09, Static Casing Pressure Less than 100 psig, effective June 1, 2005. The policy changes set forth in this NTL significantly reduce the paperwork burden concerning the reporting of casing pressure conditions, the number of departure requests, and the frequency of casing pressure diagnostic testing.

Background

The regulation at 30 CFR 250.517(a) requires that each tubing string in a well has the necessary strength and pressure integrity and is otherwise suitable for its intended use. The regulation at 30 CFR 250.517(d) requires that wellhead, tree, and related equipment be designed, installed, used, maintained, and tested so as to achieve and maintain pressure control. Since casing pressure may be a symptom of a mechanical failure, it is incumbent on the Minerals Management Service (MMS) Gulf of Mexico OCS Region (GOMR) to determine whether this failure warrants remedial action to ensure pressure integrity and control. The MMS GOMR has determined that, for certain types of casing pressure, you must submit a departure request pursuant to 30 CFR 250.142 and receive approval from the MMS GOMR for you to continue to have casing pressure on a well without taking remedial action.

The American Petroleum Institute Recommended Practice 90, Annular Casing Pressure Management, First Edition (API RP 90) provides the best available technology for the evaluation and management of wells with casing pressure. The MMS GOMR encourages you to use this document for guidance on recognizing and evaluating casing pressure on all well types and on testing methods and data collection.

Definition

Maximum Allowable Wellhead Operating Pressure (MAWOP) is a concept taken from API RP 90. The MAWOP is a measure of how much pressure can be safely applied to an annulus and is

applicable to all types of annular pressure, including thermal casing pressure, sustained casing pressure, and operator-imposed pressure.

The MAWOP for the annulus being evaluated is the lesser of the following:

- 50 percent of the minimum internal yield pressure (MIYP) of the pipe body for the casing or production riser string being evaluated; or
- 80 percent of the MIYP of the pipe body of the next outer casing or production riser string; or
- 75 percent of the minimum collapse pressure (MCP) of the inner tubular pipe body.

For the last outer casing or production riser string in the well, the MAWOP is the lesser of the following:

- 30 percent of the MIYP of the pipe body for the casing or production riser string being evaluated; or
- 75 percent of the MCP of the inner tubular pipe body.

Monitoring, Evaluating, and Reporting Casing Pressure

1. Pursuant to 30 CFR 250.517(c), monitor your wells for casing pressure and record the pressures you observe (including zero pressure present) as follows:

- a. Fixed platform wells – Monitor monthly, with at least one pressure data point recorded per month for each casing.
- b. Hybrid wells and subsea wells – Monitor continuously, with at least one pressure data point recorded per day for each riser and/or the production casing.
- c. Wells operating under a casing pressure departure – Manned fixed platforms, monitor daily and unmanned fixed platforms, monitor weekly, with at least one pressure data point recorded for each casing.

2. Within 30 days after you first observe or impose casing pressure on a well, perform a casing diagnostic test (see API RP 90 for descriptions of commonly used diagnostic test methods) if the following occurs:

- a. On a fixed platform well, the casing pressure is greater than 100 pounds per square inch gauge (psig).
- b. On a hybrid well, any riser pressure or the production casing pressure is greater than 100 psig measured at the surface.
- c. On a subsea well, the measurable casing pressure is greater than the external hydrostatic pressure plus 100 psig measured at the subsea wellhead.

3. The following exemptions are applicable to Item No. 2 above:

- a. A newly completed or recompleted well often has thermal casing pressure during initial startup. Bleeding casing pressure and casing fluids during the startup process is considered a normal and necessary operation to manage casing pressure. Therefore, you do not need to evaluate these operations as casing diagnostic tests. However, after you complete startup operations and if you observe casing pressure, then the provisions of Item No. 2 above do apply.
- b. You are exempt from performing a diagnostic pressure test for the production casing on a well operating under active gas lift.

4. Perform subsequent casing diagnostic tests as follows:

- a. At least every 5 years for all fixed platform wells with an outer casing (B, C, D, etc. annuli) pressure exceeding 20 percent of the MIYP.
- b. At least annually, not to exceed 12 months between tests, for all fixed platform well production casings (A annulus) with a pressure exceeding 10 percent of the MIYP, except for producing wells on active gas lift.
- c. When a casing pressure departure has expired or becomes invalid.
- d. When any casing or riser has a pressure that has increased by more than 200 psig over the previous casing diagnostic test.
- e. The production casing (A annulus) of wells on active gas lift are exempt from diagnostic testing. However, if any well previously on gas lift has been shut-in or flowing without gas lift for more than 180 days, perform a casing evaluation test on the production casing (A annulus).
- f. After you take corrective action as a result of a casing pressure departure request denial.

5. Until you decommission a well, maintain the records of each casing pressure and casing diagnostic test for a minimum of 2 years and make them available to MMS personnel during field inspections. Maintain the records of the last casing diagnostic test for each casing or riser regardless of when you performed it.

6. In accordance with 30 CFR 250.142, the MMS GOMR hereby grants a blanket departure from the requirement in 30 CFR 250.517(c) that you notify the appropriate MMS GOMR District Manager if you observe casing pressure on a well. In lieu of these notifications, the MMS GOMR has established procedures (see Items Nos. 7 through 14 below) for granting departures, taking corrective action, and performing subsequent diagnostic tests only for those wells that meet one or more of the conditions listed in Item No. 7 below.

7. If you observe casing pressure on your well, **and** if any one of the following scenarios apply, submit a casing pressure departure request pursuant to 30 CFR 250.142 to the MMS GOMR for approval.

- a. A fixed platform well with a casing pressure that exceeds its MAWOP;
- b. A fixed platform well with a casing pressure that is greater than 100 psig and cannot be bled to 0 psig through a ½-inch needle valve within 24 hours or is not bled to 0 psig during a casing diagnostic test;
- c. A well that has demonstrated tubing/casing, tubing/riser, casing/casing, riser/casing, or riser/riser communication;
- d. A well that has increasing casing pressure that is bled down to prevent it from exceeding its MAWOP, except during initial startup operations as described in Item No. 3.a above;
- e. A hybrid well with a casing or riser pressure greater than 100 psig; or
- f. A subsea well with a casing pressure that is at least 100 psig greater than the external hydrostatic pressure measured at the subsea wellhead.

8. Submit the casing pressure departure request to the MMS GOMR for approval within 14 calendar days after you perform a casing diagnostic test that shows that one or more of the conditions in Item No. 7 above has been met. Include the following information in your casing pressure departure request:

- a. Company name and mailing address;

- b. Area name, OCS block number, and lease number;
- c. Whether the structure on which the well is located is manned or unmanned;
- d. Water depth;
- e. Well name and API number;
- f. Well schematic;
- g. Well status (SI, TA, Prod., Inj., or GL);
- h. Well type (dry tree, hybrid, or subsea);
- i. All casing/riser sizes, weights, grades, and MIYP's;
- j. All casing/riser calculated MAWOP's;
- k. All casing/riser pre-bleed down pressures;
- l. Shut-in and flowing tubing pressures;
- m. Volumes and types of fluid bled from each casing or riser evaluated;
- n. Last well test (date and flow rate (BOPD, MMCFD, or BWPD));
- o. Date and description of casing diagnostic test performed;
- p. For all casing pressures exceeding 100 psig, the casing diagnostic test data; and
- q. Concentration of any H₂S that may be present.

9. The MMS GOMR approves a casing pressure departure request for a term determined on a case-by-case basis. Also, the approval of a casing pressure departure request may be subject to you fulfilling certain conditions.

10. Should the MMS GOMR deny your casing pressure departure request, contact the respective MMS GOMR District Office within 72 hours after receiving the departure denial. Submit plans for corrective action to the respective MMS GOMR District Manager within 30 days after receiving the denial. The MMS GOMR District Manager may establish a specific time period for you to accomplish this corrective action.

11. If you recognize that you have a well with annular casing pressure that requires corrective action, you may submit an Application for Permit to Modify (APM) (Form MMS-124) or a plan for corrective action to the respective MMS GOMR District Manager for approval without requesting a departure. Submit the APM or plan for corrective action within 30 days after you perform a casing diagnostic test that shows that one or more of the conditions in Item No. 7 above has been met. In that case, provide a copy of the APM or plan for corrective action to the MMS GOMR Regional Supervisor along with the information listed in Item No. 8 above.

12. Perform a casing diagnostic test within 30 days after you take corrective action to address casing pressure and submit the results to the MMS GOMR. Include a new casing pressure departure request if one or more of the conditions in Item No. 7 above still apply.

13. Perform a casing diagnostic test when you determine that a well operating under an approved casing pressure departure no longer requires that departure because the casing pressure has decreased or other conditions have changed. Submit the results to the MMS GOMR and request that the status of the well be changed.

14. A casing pressure departure approval becomes invalid when:

- a. The casing or riser pressure increases by more than 200 psig over the granted departure pressure;
- b. It expires;

- c. The well is worked over, side-tracked, re-drilled, re-completed, or acid stimulated;
- d. A different casing or riser on the same well requires a casing pressure departure; or
- e. A well has more than one casing operating under a casing pressure departure and one of the casing pressure departure approvals becomes invalid then all casing pressure departures for that well become invalid.

Guidance Document Statement

The MMS issues NTL's as guidance documents in accordance with 30 CFR 250.103 to clarify, supplement, and provide more detail about certain MMS regulatory requirements and to outline the information you provide in your various submittals. Under that authority, this NTL sets forth a policy on and an interpretation of a regulatory requirement that provides a clear and consistent approach to complying with that requirement. However, if you wish to use an alternate approach for compliance, you may do so, after you receive approval from the appropriate MMS office under 30 CFR 250.141.

Paperwork Reduction Act of 1995 Statement

The information collection referred to in this NTL is intended to provide clarification, description, or interpretation of requirements contained in 30 CFR 250, Subpart E, Oil and Gas Well-Completion Operations. The Office of Management and Budget (OMB) has approved the information collection requirements in these regulations under OMB Control Number 1010-0067. This NTL does not impose additional information collection requirements subject to the Paperwork Reduction Act of 1995.

Contact

Please contact Mr. Russell Hoshman by e-mail at russell.hoshman@mms.gov or by telephone at (504) 736-2627, with any questions regarding this NTL. Send your casing pressure departure requests to

Minerals Management Service
Gulf of Mexico OCS Region
Technical Assessment and Operations Support Section (MS 5220)
1201 Elmwood Park Blvd.
New Orleans, Louisiana 70123

Please do not submit casing pressure departure requests by e-mail or fax.

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Lars T. Herbst
Regional Director