

GUIDE FOR

WELL TEST SYSTEMS MARCH 2010

Guide to Color Coding Used in Online Version of the Guide

The following summarizes the colors corresponding to Rule Changes, Corrigenda items and editorial changes in the Guide files which are available for download.

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WELL TEST SYSTEMS

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- January 2012 version plus Corrigenda/Editorials

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- March 2010 version plus Corrigenda/Editorials

Foreword

This Guide contains the technical requirements and criteria employed by ABS in the review and survey of well test systems that are being considered for Classification and for maintenance of Classification. It is applicable to well test systems that are installed on board vessels and mobile offshore drilling units.

Well test systems designed, constructed, and installed in accordance with the requirements of this Guide on an ABS classed vessel or mobile offshore drilling unit, under ABS review and survey, will be classed and identified in the *Record* by an appropriate classification notation as defined herein.

ABS acknowledges that well test systems are usually installed on board when the vessel or unit is going to be engaged in well testing operations (short-term or extended well testing) and removed when the well testing campaign is finalized. The Guide has been written to account for the different scenarios during the life of the vessel or unit with adequate flexibility to cover the safety aspects during the different phases of operation as well as the preparation of the vessel or unit before the well test system is installed onboard.

The Guide has an effective date of 1 March 2010. The application of this Guide and referred Rules and Guides is, in general, based on the contract date for construction between the shipbuilder and the prospective Owner (e.g., Rules which became effective on 1 March 2010 are not applicable to a vessel or unit for which the contract for construction was signed on 28 February 2010). At the Owner's request and upon agreement by ABS, this Guide may be applied to existing vessels or units or to those projects for which the contract date of construction has been signed before 1 March 2010. See also 1-1-4/3 of the *ABS Rules for Conditions of Classification – Offshore Units and Structures (Part 1)*.

GUIDE FOR WELL TEST SYSTEMS

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SECTION 1 General

1 Application

This Guide has been developed to provide requirements for the design, construction, installation and survey of well test systems on board vessels and mobile offshore drilling units classed with ABS. The requirements as specified in this Guide are additional to all other relevant requirements of ABS Rules and Guides.

3 Scope

This Guide addresses the safety aspects related to well test systems either temporarily or permanently installed on board vessels and mobile offshore drilling units classed with ABS. The scope of the Guide is limited to surface systems and equipment and does not cover subsea components used during well testing operations.

5 Definitions

5.1 Well Test Systems

Well test systems are the facilities installed on vessels or mobile offshore drilling units (MODUs) for the purpose of evaluating the quality and/or quantity of the well fluid to determine whether the well should be completed for production or plugged and abandoned. Well test systems may include well control equipment, process pressure vessels, piping and electrical components, control systems, burners and gas flares and burner/flare booms.

5.3 Permanent Well Test Systems

Well test systems installed on board a vessel or MODU for at least 30 months are considered permanent, notwithstanding if the system is or is not in operation.

5.5 Temporary Well Test Systems

Well test systems installed on board a vessel or MODU for less than 30 months are considered temporary.

5.7 Well Test Ready

Vessels or MODUs that have been designed for well test operations, but the well test system has not been installed on board, are considered “well test ready”.

7 Class Notations

7.1 Well Test Ready

Vessels or MODUs designed to be “well test ready” that comply with Section 2 of this Guide will be assigned the notation **WT-READY**, upon Owner’s request.

7.3 Temporary Well Test Systems

Vessels or MODUs with temporary well test systems that comply with the requirements of Section 3 of this Guide will be assigned the notation **WT-TEMP**, upon Owner’s request.

Vessels or MODUs with temporary well test systems installed on board and not assigned with notation **WT-TEMP** are to comply with the minimum mandatory requirements of Subsection 3/19 of this Guide. In this case, no class notation related to well testing systems will be assigned to the vessel or MODU.

7.5 Permanent Well Test Systems

Vessels or MODUs fitted with permanent well test systems that comply with Section 4 of this Guide will be assigned the notation **Well Test Service**. This notation is mandatory.

7.7 Change of Class Notations

The installation or removal of the well test systems on board vessels and MODUs is to be notified to ABS in order to re-assess the compliance with the requirements of this Guide. The class notations will be modified as necessary to reflect the new status of the vessel or MODU, as shown in Section 1, Figure 1.

9 Plans and Data to be Submitted

Plans should generally be submitted electronically to ABS. However, hard copies will also be accepted.

9.1 Systems

The detailed, dimensioned drawings listed below are to be submitted and are to include material specifications, welding specifications and dimensions, and strength calculations, as applicable:

- Project Specification
- Process Flow Sheets
- General Arrangement Plan
- Equipment Layout Drawings
- Area Classification Drawings
- Deck Structural Drawings
- Burner/Flare Boom Structural Drawings
- Piping and Instrument Diagrams (P & ID's)
- Pressure Relief and Depressurization Systems
- Flare and Vent System
- Gas Dispersion and Radiant Heat Study
- Spill Containment and Drain Systems
- Equipment Documentation
- Piping Specification
- Electrical One-line Diagrams
- Instrumentation and Control Systems
- Firewater System
- Water Spray (Deluge) Systems for Well Test Equipment
- Foam Systems for Crude Storage Tanks
- Emergency Control Stations
- Portable and Semi-Portable Extinguishers
- Fire and Gas Detection and Alarm Systems
- Fire and Gas Cause and Effect Chart
- Arrangements for Storage Tank Venting and Inerting
- Operating Manual

For details, reference is made to Chapter 3, Section 2 of the ABS *Rules for Building and Classing Facilities on Offshore Installations (Facilities Rules)*.