THE INSTITUTE OF PETROLEUM

Guidelines for 'Routine' and 'Non-Routine' Subsea Operations from Floating Vessels

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August 1995

Published by
THE INSTITUTE OF PETROLEUM, LONDON
A charitable company limited by guarantee

ISBN 0 85293 156 5

Printed by Eyre & Spottiswoode Ltd, London and Margate

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FOREWORD

This Guideline document has been prepared as a guide to safe practice for those concerned with drilling, completion or workover operations from floating vessels. It provides information and guidance on those issues which affect the structural strength and integrity of the subsea system; issues which primarily affect operability are not addressed directly. In this context, the subsea system includes:

- risers;
- subsea Blowout Preventers (BOPs), including flanges (for drilling operations);
- subsea xmas trees, including flanges (for completion/workover operations);
- hydraulic wellhead connectors;
- subsea wellhead systems;
- subsea conductors (i.e. those located below subsea wellheads).

All of these items are primary structural components; the integrity of the system is dependent upon their suitability for a particular application.

This Guideline has been produced in a United Kingdom Continental Shelf (UKCS) context, but the principles and recommendations have general relevance to similar operations elsewhere in the world. It is intended that this Guideline should be considered as a starting point, and general reference source for subsea operations. Definite recommendations are offered, but these should be applied according to each Operator's policies and experiences in the particular area of operation.

It is essential that Codes of Practice, Specifications, Recommended Practices and Standards, which are referred to throughout this Guideline, are studied and applied as appropriate. Additionally, account should be taken of any Codes of Practice, Specifications, Standards, Recommended Practices, National Statutory Requirements and Regulations which have been issued since this Guideline was published.

Research work is being continuously undertaken, to improve the level of understanding of many of the issues which are addressed in this Guideline. Users of this document should ensure that they are aware of the results of such research, and apply any relevant findings in an appropriate manner.

It is stressed that the successful application of this, or any similar, Guideline depends largely upon the awareness and competence of the user. The intention is that a fully auditable trail of information should be produced. Although the adoption of the Guideline should help to promote safe drilling and completion/workover operations, the Institute of Petroleum and their agents involved in its development cannot accept responsibility in any way for injury to personnel or damage to equipment, installations or property which may occur when this Guideline has been applied. The IP's Technical Department will endeavour to answer any queries relating to this Guideline.

For the purposes of this Guideline, it should be noted that a variety of terms are employed which are in common usage in the oil and gas industry. Definitions for such terms are presented in Appendix 2; these definitions apply irrespective of any other meaning which the words may have in other connection.

ACKNOWLEDGEMENTS

The contents of this Guideline document were developed from the results of a comprehensive Joint Industry Project (JIP), which was managed by the Institute of Petroleum on behalf of the industry. Relevant industry bodies were represented on the Task Group which managed the work, these being:

— The Institute of Petroleum (IP):

Mr Graham Ferguson, Chairman (BP Exploration);
Mr Gregory W King, Alternate Chairman (Mobil North Sea Ltd);
Mr Sjoerd Schuyleman (IP).

— United Kingdom Offshore Operators Association—Drilling Practices Committee (UKOOA-DPC):

Mr Rod Roberts (Marathon Oil);
Mr Robert Sears (Hamilton Oil);
Mr Mike Ollis (Hamilton Oil).

— International Association of Drilling Contractors (IADC):

Mr Lyndol Dew (Diamond Offshore);
Mr Joe Spencer (Sedco Forex);
Mr Paul Tranter (Sedco Forex).

— Association of Wellhead Equipment Manufacturers (AWHEM):

Mr John G A Munro (ABB Vetco Gray);
Mr Don Allan (formerly National Oilwell);
Mr John Cullion (Kvaerner National).

The analysis work was performed by W S Atkins—Scotland; the following were the key team members:

Mr Kevin Burton—Project Manager (formerly W S Atkins—Scotland);
Dr J Anderson Foster (formerly W S Atkins—Scotland);
Mr Stewart D Maxwell.
Mr Keith Darby—Project Director

Contact address: W S Atkins Consultants Limited, 6 Golden Square, Aberdeen AB1 1RD

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USE OF THIS GUIDELINE DOCUMENT

The anticipated method for applying this Guideline is that, for each particular operation, the user should:

- apply the screening procedure detailed in Section 2.0, to establish if the proposed operation falls within the 'routine' case definition;
- if the proposed operation is identified as being 'routine', then reference should be made to Section 3.0. Operations in the field should be conducted within appropriate operating envelopes, as identified in Section 3.0. Further analysis should not be necessary;
- if the proposed operation is identified as being 'non-routine', then the guidance presented in Section 4.0 should be applied. Relevant 'non-routine' analysis should be performed, and appropriate operating envelopes and constraints should be developed.

It should be noted that, within the 'routine' case, this document only deals with "normal" operating conditions, including floating vessel static offsets of up to 4% water depth. The issue of operating envelopes for vessel mooring line failure is not addressed within the 'routine' case, unless the vessel excursion (from the mean position directly above the well) is less than 4% of water depth.