



To:

Oil & Gas Companies operating on the Norwegian Continental Shelf

Drilling Contractors operating on the Norwegian Continental Shelf

POST MACONDO RECOMMENDATION LETTER No. 1

Deepwater Horizon Follow-Up OLF Joint Industry Project

Letter No. 1 - Drilling and wells related recommendations to Norwegian Continental Shelf (NCS) Operators and Drilling Contractors stemming from the *Deepwater Horizon* Accident and Macondo Well Blowout.

In this letter, the first set of recommendations developed from assessing key findings from the BP “Deepwater Horizon Accident Investigation Report” and their relevance for NCS activities are presented. These recommendations are primarily drilling and wells related. More recommendations will follow throughout 2011, with all recommendations summarized in a separate report upon completion of the project.

1. Introduction

Background

In August 2010, OLF established a project group to follow-up the *Deepwater Horizon* accident and Macondo well blowout which occurred in the U.S. Gulf of Mexico on 20-April-2010. The project group reports to the OLF Operations Executive Committee (OEC), and is comprised of representatives from OLF, NOFO, and member companies. The mandate set for the project group was to “*Collect the available information from the accident and evaluate their relevance to the Norwegian petroleum industry. This will serve as a basis for necessary actions*”.

Project Scope

In conjunction with the mandate, the project group was asked to assess the need for developing new methods, standards, and equipment with the main objective to “*Prevent similar accidents and to stop and limit the consequences of discharges from subsea blowouts*”.

Process and Approach

For the remainder of 2010, the project group analyzed facts and material findings primarily from the BP “*Deepwater Horizon Accident Investigation Report*” and developed a number of recommendations relevant to Norwegian petroleum activities. These recommendations were presented to the OEC on 08-December-2010. After a thorough review and additional follow-up, the recommendations and proposed actions were approved by the OEC on 28-January-2011. Some of the recommendations will follow international initiatives being led by globally recognized entities such as API and ISO. Other will be reflected locally in revisions to current Norwegian standards.

2. Recommendations

The project group has identified potential improvements to operator’s and drilling contractor’s internal management system steering documentation. Whereas these improvements fall outside the framework of regulations, their relevance has been established for ensuring continued integrity and safety in well operations. These recommended improvements include:

Recommendation No: I - Management of Change Process for Operators

A Management of Change (MOC) procedure covering the well life cycle should be included in operator's management system steering documentation. The MOC procedure should describe the processes used to assess risk, mitigate, authorize, and document material changes to previously approved information or procedures. Material changes subject to a MOC process include, but are not limited to, the following:

- Changes in surface and down hole well control equipment;
- Changes that impact well barriers;
- Change in well type (e.g. producer to injector);
- Changes in procedures;
- Changes in rig or contractor's well control equipment while on hire to an operator; and,
- Changes of key personnel.

Recommendation No: II - Management of Change Process for Drilling Contractors

A Management of Change procedure covering the following elements of rig systems and key personnel should be included in drilling contractor's management system steering documentation. The MOC procedure should describe the processes used to manage, maintain, modify, risk analyze, authorize, and document material changes to rig systems and procedures. The following elements subject to a MOC process include, but are not limited to, the following:

- Safety critical systems;
- Changes of key personnel;
- Changes in procedures; and,
- Changes in contractor's well control equipment while on hire to an operator.

Recommendation No: III - Well Control Bridging Documents

A Well Control Bridging Document implemented between the operator and drilling contractor describing the chain of command and procedures for well control operations should be included in operator's management system steering documentation. Such bridging documents should ensure conformance with both party's well control procedures and technical requirements, and address any identified gaps or conflicts between the two procedures. Well Control Bridging Documents should be prepared for all future drilling operations.

Requested Actions

These recommended improvements are a result of the work performed by the OLF project group where variations in practices, procedures, and application of these management system elements were noted. The Operations Executive Committee supports and promotes sharing and use of 'good oilfield practices' with operators and drilling contractors across the Norwegian Continental Shelf. It is in that regard that the OEC considers it the responsibility of each individual operator and drilling contractor to review, evaluate, and if necessary, revise their internal management system steering documentation relative to the recommendations above.

Your consideration and internal follow-up of these recommended improvements outlined in section two is greatly appreciated.

References:

Date of First Issue:	2011-3-14	Project:	DWH Follow-Up 2010/11
Recommendation Letter No.:	1	Area of Interest:	- Wells Management Systems
Revision:	0	Recommendations Subject:	- Management of Change Process - Well Control Bridging Documents
<p>Lessons learned from the Deepwater Horizon/Macondo accident.</p> <p>The OLF project to follow-up the Deepwater Horizon/Macondo accident is gathering relevant information from investigation reports and other sources, and evaluating key findings and lessons learned for Norway's oil industry. It is also assessing the need to develop new methods, standards and technology to prevent or limit the impact of subsea blowouts, and following up international initiatives. The various sets of recommendations will be made available at the DWH project's web site:</p> <p>http://www.olf.no/en/Activities/HSE-and-operation/Lessons-learned-for-the-Deepwater-HorizonMacondo-accident/</p>			

Prepared by:	Name and Position: <u>Project Team</u> Olav Skotheim- Statoil, Project Leader Rune Alterås-Shell, John Burgess-ConocoPhillips, Hans Konrad Johnsen-Det Norske, Eldar Larsen-BP, Fredrik Sønstabø- ExxonMobil, Stein Olausen- Halliburton, Lars Petter Lundahl-Statoil, Sjur Knudsen, Oddbjørg Varhaug Greiner-NOFO, Jan Krokeide, Egil Dragsund, Karin Øvstebø, Kjetil Hjertvik, Bodil S. Krohn-OLF	Signature:
Endorsed by:	Name and Position: Knut Thorvaldsen Director, OLF HSE & Operations	Signature:
Approved by:	Name and Position: Torstein Hole Chairman, OLF Operations Executive Committee	Signature: