

Surface BOP task force to set guidelines for use

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IADC'S SURFACE BOP Task Force has set the ambitious goal of producing a set of guidelines for working with the emerging technology within six months, and is well on its way to achieving that goal.

The Task Force, co-chaired by **Earl Shanks of Transocean** and **Graham Brander of Shell**, originated from a workshop held late last year that attracted more than 250 participants. Those present included oil companies, drilling contractors, service companies, and regulatory bodies. The **US Minerals Management Service (MMS)** sponsored the workshop.

The participants viewed presentations by industry experts discussing the benefits, possibilities and potential hazards of utilizing surface blowout preventer equipment from floating MODUs in lieu of traditional subsea BOP units.

Those present then divided into groups to discuss areas of concern in three key areas: well design, vessel considerations, and health, safety and the environment.

The Task Force will operate similarly to the group that was set up in the late 1990s to develop the IADC Deepwater Well Control Guidelines. The Surface BOP group has been organized in similar fashion to the task force that completed that project in the space of one year.

The surface BOP concept was first used by Shell in the Borneo area using the semisubmersible Sedco 135A beginning in the mid-1960s in water depths to about 250 ft. Recent deepwater applications were pioneered by **Unocal** and **Transocean** in Southeast Asia beginning in about 1996.

Surface BOP drilling operations from semisubmersible rigs used a land or jackup type surface BOP suspended above the waterline in the moonpool area.

The BOP is connected to a high pressure

riser, typically a continuous length of 13 3/8-in. casing, from a casing shoe to the surface wellhead. This serves as the conduit to the ocean floor. More recent designs include a seabed disconnect system.

Since first developed in 1996, the new technique has attracted the interest of other operators due to its significant economic benefits in benign deepwater



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environments. Recent work has focused on development of surface BOP and high-pressure riser systems suitable for floating drilling operations in deeper water and more moderate operating environments, such as the Gulf of Mexico, West Africa, Brazil and the Mediterranean.

There has also been interest in utilizing the technology for development operations as well as exploration drilling, for which it has been primarily utilized and on which the initial efforts of the Task Force will focus.

TASK FORCE

A "kickoff" meeting for the newly formed Task Force was held at Global-SantaFe in Houston in early February. At that time, the group established a six-month development timeline. This calls for a completed draft version to be available by August 2003, with a final review version completed in November.

This will allow the group to present the guidelines to the IADC Executive Committee and Board of Directors for approval at the association's Spring Membership Conference early next year.

At the meeting, the group elected officers for each of the three subcommittees that will work on the project. **Ken Dupal** of Shell will chair the **Well Construction Subcommittee**, with **Mike Berckenhoff** of **Hydril** as vice-chairman.

Bill Hunter is chairman of the **Drilling Vessel Equipment Subcommittee**, with **Bryan Sanchez** of **Transocean** as vice-chairman.

The **Health, Safety & Environment Subcommittee** is chaired by **Walter Cabucio** of **Transocean**, with **Tom Shackelford** of **Global-SantaFe** as vice-chairman.

MISSION STATEMENT

The Mission Statement for the task force is to "design a guide to aid the drilling industry in planning and conducting Surface BOP Operations on floating MODUs using existing best practices. It should be based on the experience and study of the contributors who work on this project. The manual is intended to give the drilling industry a basis on which to build future deepwater Surface BOP operations. It is intended that this document will cover any Surface BOP operation around the world, and that it will be a continually developing document".

STEERING COMMITTEE

The Steering Committee consists of **Mr. Shanks** and **Mr. Brander**, **Mark Childers** of **Atwood Oceanics**, **Gary Bush** of **Unocal**, **Ralph Linenburger**

and **Jim Brekke** of **GlobalSantaFe**, **Brett Borland** of **ConocoPhillips**, **Moe Plaisance** of **Diamond Offshore**, **Don Howard** and **Bill Hauser** of **MMS**, and **Steve Kropla** of **IADC**.

The primary role of the Steering Committee is to define the overall scope of the project, to allocate topics to each of the three workgroups, and to identify overlaps between workgroups so they can be addressed without duplication of effort or conflicting information.

Once overall topics areas had been assigned in the kickoff meeting, one of the group's key decisions was to limit the initial guidelines document to address drilling issues only.

Drill stem testing and other development and production issues using Surface BOPs from floating rigs might be addressed in later stages.

While design and vessel considerations might not vary much for these types of operations, the Steering Committee felt that there would be the need for many additional HSE considerations.

To identify and coordinate potential areas of overlap, members of the Steering Committee have been assigned to work directly with specific workgroups.

For example, Mr. Brekke is the liaison with the Well Construction group, while Mr. Childers and Mr. Linenburger are members of the Drilling Vessel Equipment workgroup and Mr. Howard is assigned to the HSE workgroup.

This method of organization helped contribute to the success of the original Deepwater Well Control Task Force.

WORK SCOPE

The Well Construction and Planning Group has set as their scope the design philosophy, existing standards, and acceptance criteria for subsea hardware from the slip joint to the mudline, including the S-BOP, riser, BOP Control System, subsea isolation/disconnect device, wellhead, ROV intervention, and acoustics.

The scope of the Drilling Vessel Equipment workgroup is to provide considerations for modifications to accommodate S-BOP, tensioners, re-coil system, control systems, mooring analysis and mooring systems, station keeping and dynamic positioning, and hull and BOP handling.

The Health Safety & Environment workgroup will address safety, rules & regulations, operating procedures, emergency response and procedures, environmental issues, training, verification, HAZID/HAZOP/QRA, and classification as they apply to nearly all aspects of the operation.

As was the case with the Deepwater Well Control Guidelines, the Task Force seeks to streamline the development process through document sharing and review using a section of IADC's internet web site.

A private, password-protected area has been reserved for the group to exchange draft documents.

PROJECT SCHEDULE

The project schedule calls for each workgroup to have completed a draft of its respective section by mid-June. The Steering Committee will meet together

with the chairmen of the three workgroups later in the month to discuss preliminary comments.

The individual sections will then be submitted **Terri Smith**, a technical writer well known to the drilling industry who edited the Deepwater Well Control Guidelines and the 2000 Supplement.

Her task will be to integrate the three sections into a unified document and to edit for consistency of style and technical information.

When a working draft of the document is complete, it will be circulated openly throughout the industry for comment. Comments received will then be used to shape the final version of the document.

It is anticipated the Surface BOP Guidelines will be available in both print and CD-ROM versions. The original Deepwater Guidelines were originally released in print form, with a CD-ROM version released in 2002.

The Deepwater Well Control Task force, chaired by Mr. Plaisance, was originally formed in 1997 as a joint effort of IADC and the Offshore Operators Committee (OOC). The original version of the guidelines was released in 1998.

In 2000, the task force was reassembled at the request of the MMS to study the issue of unplanned disconnects of the lower marine riser package on floating rigs.

The group issued a supplement to the original guidelines, which has been incorporated into the current version available from IADC Publications. ■

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