

Issue 8

Responsible investor Briefing

20th September 2013

In 2010, we accepted all 26 recommendations made by the Bly Report – our internal investigation into the Deepwater Horizon incident.

BP has committed to providing regular updates on progress towards the implementation of these 26 recommendations.

Contents	1.	Completed recommendations
	2.	Progress update - BOPs
	3.	Project timeline

Update on completed recommendations

The total number of completed¹ recommendations is now 14. Since the last progress update for Socially Responsible Investors in October 2012, a further four recommendations have been completed. These were:

- **Recommendation 11**: *To establish BP in-house expertise for subsea BOP and BOP control systems.* Subsea Blow Out Preventer (BOP) systems in the BP-owned and contracted rig fleet, and management of these systems by the drilling contractor, should be subject to appropriate understanding and interaction with BP's own subsea BOP team expertise. In order to achieve this, in-house expertise has been established with the creation of a central expert team, including a defined segment engineering technical authority (SETA) role, to provide independent assurance of the integrity of drilling contractors' BOPs and BOP control systems and allow consistent understanding of subsea BOPs and BOP control systems.
- Recommendation 18: To require hazard and operability (HAZOP) reviews for surface gas and drilling fluid systems for all BP-owned and BP-contracted drilling rigs. A standard Terms of Reference and Recommended Practice has been developed for the conduct of new HAZOP reviews. A centralized rig database for all surface gas and drilling fluid system HAZOPs has also been put in place. Rigs in the existing fleet have been reviewed to assure conformance with the new requirements, and specific HAZOP requirements have been incorporated into BP's Standard Rig Contract template for future BP owned, contracted or new build rigs.
- **Recommendation 19**: To include the study of all drilling rig surface system hydrocarbon vents in all hazard and operability studies. A Recommended Practice has been developed for engineering reviews of all applicable surface system hydrocarbon vents on drilling rigs. Training on this Practice has been carried out and a significant number of the relevant training audience have attended.
- **Recommendation 24**: *To develop a clear plan for remotely operated vehicle intervention for each subsea BOP.* Following a thorough review of ROV intervention and tooling systems, an Operating Practice aimed at standardising ROV and other intervention methods for Subsea BOP emergency operation across the BP contracted fleet has been developed and issued to all BP Regions.

The estimated delivery date for Recommendation 9 'Enhance D&C competency programs for key operational and leadership positions' has been revised following a management decision to align work to complete this recommendation with a broader BP program covering competencies for safety critical roles. We continue to make progress on all of the remaining recommendations largely in line with our planned schedule.

Progress update - BOPs

The recommendations related to BOPs make up seven of the remaining Bly Report recommendations and remain a priority for BP's Global Wells Organization. The following is a brief update on some of the progress being made in this area:

• BP is continuing to **work with rig contractors and equipment manufacturers** with respect to BOP equipment with a view to reducing risk and increasing operability.

BP Responsible investor Briefing

¹ A recommendation is defined as complete when the VP, Technical Functions GWO has concluded that the action has been completed and has submitted to S&OR Audit for verification

- As of 1st April 2013, BP has established a Subsea BOP Reliability Team of approximately 30 individuals. This team will provide global support for BOP matters within BP as well as provide specific regional support for on-going operations and engineered solutions. The team will also work to develop and implement a carefully planned approach to strengthen BP's relationships with internal and external stakeholders that impact BOP reliability. This is a key part of continued efforts to reduce operational risk and subsea BOP related nonproductive time in BP's deepwater operations.
- BP continues to strive for increased BOP reliability and is piloting techniques to better identify and understand subsea BOP failures. In order to gather actual data, BP approved a **BOP reliability pilot** to be conducted on a BP owned Subsea BOP located in the Gulf of Mexico commencing in late 2012. The pilot is anticipated to be completed in 3Q 2013. The key learnings from the pilot are being incorporated into new practices which are a fundamental step in progressing several of the remaining Bly Report recommendations.
- A number of **new or updated standards** have been developed including:
 - o An updated technical practice on Well Control
 - o A technical practice on Subsea BOP Systems
 - o An updated Well Control Manual
 - Additionally, BP played a role in developing the American Petroleum Institute (API) Standard 53 which is titled "Blowout Prevention Equipment Systems For Drilling Wells".
 - As previously reported, BP now has a **BOP configuration** requirement that each Subsea BOP on dynamically positioned (DP) rigs in deepwater drilling operations be configured with 2 blind shear rams and 1 casing shear ram. Moored rigs are required to have 2 shear rams, one of which must be a blind shear ram. Additionally, a number of requirements have been imposed to assure proper interface between the BOP and Remotely Operated Vehicle (ROV) system.
 - BP has developed a **global deepwater well-capping and tooling package** that is stored in Houston and maintained in a constant state of operational readiness so that, under ideal circumstances, it can be delivered by air freight in a matter of days.
 - BP has increased the frequency of **testing for critical emergency functions** for Subsea BOPs, and established updated testing requirements.
 - For **BOP Emergency Systems** BP has established requirements for annual and pre-deployment testing of key systems and capabilities including the Emergency Disconnect System (EDS) and ROV function.
 - For **Shearing Capability**, a more detailed and rigorous shearability assessment is now required before drilling operations can commence, and a testing protocol is in place to assure accurate and consistent data is gathered when conducting a shear test. In addition, a third party issued certificate of the blind shear ram capability to shear the drill pipe under Maximum Anticipated Wellhead Pressure or Maximum Allowable Surface Pressure is required. Finally, BP has established a global shearability database that can be accessed by BP Regions across the globe.

Estimated completion dates for those recommendations related to BOPs are now available and can be seen in the timelines below. The delivery plan for 2013 has fewer recommendations being completed compared to previous years. This is due, in part, to the process now entering a stage focussed on delivering the longer-term recommendations which are scheduled to take significantly longer to complete.

Secondly, and more importantly, along with maintaining and strengthening safe practices, BP's key priority with this work has always been to assure we achieve the highest possible quality. Part of the process for assuring quality involves a careful process of auditing and verifying what has been done, both within the Global Wells Organization and via Safety & Operational Risk (S&OR), and finally with the Independent Expert.

BP is committed to doing this right, with safety and quality delivery as the priorities.

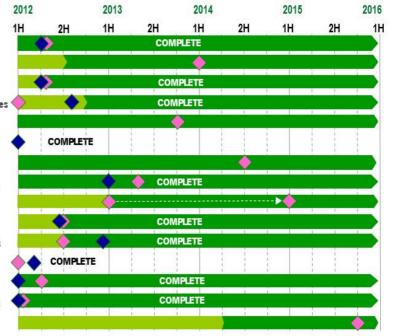
Updated project timeline²

BP's drilling operating practices and management systems

- 1 Update and clarify cementing guidelines
- 2 Update requirements for BOP configuration
- 3 Update requirements for negative pressure tests and lock-down rings
- 4 Update practice on pressure, including contingency and testing procedures
- 5 Strengthen incident reporting standards for well control and well integrity
- 6 Propose recommended practice for foam cement testing to API
- 7 Assess risk management and MOC processes for life cycle of D&C activities
- 8 Strengthen the technical authority's role in cementing and zonal isolation
- 9 Enhance D&C competency programs for key operational and leadership positions
- 10 Develop advanced deepwater well control training
- 11 Establish BP in-house expertise for subsea BOP and BOP control systems
- 12 Request IADC to develop subsea engineering certification
- 13 Strengthen BP's rig audit process to improve closure and verification
- 14 Establish KPIs for well integrity/control and rig safety-critical equipment
- 15 Require drilling contractors to implement auditable integrity monitoring system

Contractor and service provider oversight and assurance

- 16 Assess cementing service provider capabilities
- 17 Confirm well control and monitoring practices are defined and applied
- 18 Require hazard and operability reviews for surface gas/drilling fluid
- 19 Include study of all surface system hydrocarbon vents in all HAZOPs
- 20 Establish minimum levels of redundancy and reliability for BOP systems
- 21 Strengthen BP's requirements for BOP testing by drilling contractors
- 22 Strengthen BP's requirements for BOP maintenance by drilling contractors
- 23 Set minimum requirements for drilling contractors' MOC for subsea BOPs
- 24 Develop clear plan for ROV intervention for each of BP's operating regions
- 25 Require drilling contractors to verify BSR shearing performance capability
- 26 Include testing and verification of revised BOP standards in rig audit





Legend

Recommendation completed

Recommendation completion (Est.)



² These timelines are estimated and based on existing facts and circumstances. They can shift due to complexity, resource availability, and evolving regulatory requirements. Each recommendation has a distinct set of requirements and conditions for completion. In some cases, this will involve the delivery of key documents (light green bar above) whereas for others additional activity is required to further embed in OMS and/or verify implementation (dark green bar)