

lssue

# Responsible investor Briefing

Monday, 15<sup>th</sup> October 2012

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 quarterly updates on progress towards the implementation of these 26 recommendations.

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## Update on completed recommendations

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

- **Recommendation 4:** to review and update Engineering Technical Practice (ETP) on Working with Pressure to include negative-pressure testing. BP has reviewed our existing ETP GP10-45 and built in new requirements for negative-pressure testing. This revised ETP has been incorporated into a Well Control Training program, along with other relevant documents, which is being rolled out across BP's operating regions by the end of the year. The program is designed to enrol and train over 500 people.
- **Recommendation 10:** to develop an advanced deepwater well control training program that supplements current industry and regulatory training. BP has developed a well control training program which will be mandatory going forward for applicable BP and drilling contractor staff involved in deepwater operations and embeds the lessons learned from the Deepwater Horizon accident. A well control simulator has been purchased (~\$2MM) to provide actual hands on training for attendees. As of end August 2012, 15 individuals had gone through this training. This program is now being sustained through BP's Global Wells Institute (GWI) with three courses scheduled for Q4 2012, accommodating 12 to 14 participants each.
- Recommendation 16: to conduct an immediate review of the quality of the services provided by all cementing service providers. BP has now completed capability assessments at 35 different locations around the world where cementing service companies are currently working with the company. These assessments focussed on conformance with applicable service provider, BP and industry standards; the competency of the service provider's engineering and supervisory personnel; and effective identification, communication and mitigation of risk associated with provider's services. In conjunction with these assessments, BP has developed contractual provisions to assure adherence to the necessary standards and competencies required by BP and is working with our cementing service providers to put these new provisions in place. BP has also enhanced the cementing capability assessment process.

### Progress update

We continue to make progress on all of the remaining recommendations largely in line with our planned schedule. The following is a summary of the work completed towards each of the remaining recommendations<sup>1</sup>.

#### BP's drilling operating practices and management systems

- 1. Update and clarify cementing practice and guidelines **Complete**
- 2. Update requirements for subsea blow out preventer (BOP) configuration
  - Requirements for subsea BOP configurations have been defined and documented
  - BP's Engineering Technical Practice GP10-10 Well Control which incorporates Subsea BOP Configuration has been revised and issued, alongside which a three day training course on the practice has been developed. Roll out of the training is expected to start by the end of the year.

<sup>&</sup>lt;sup>1</sup> You can find a more detailed description of each of the recommendations at <u>www.bp.com/26recommendations</u>

- Two sets of blind shear rams are now required on all subsea BOP's used on dynamically positioned rigs
- The revised estimated delivery date for this recommendation is due to a management decision to align with the Bly program team's 7 step implementation process
- 3. Update requirements for negative pressure tests and lock-down rings Complete
- 4. Update practice on working with pressure, including contingency and testing procedures **Complete**
- 5. Strengthen incident reporting standards for well control and well integrity
  - A document to assure appropriate reporting of well control, well integrity and other process safety incidents has been developed and issued
  - This document has been incorporated into a training program for key regional drilling personnel which is scheduled to be implemented by the beginning of 2013.
- 6. Proposal of recommended practice for design and testing of foamed cement slurries to API **Complete**
- 7. Assess risk management and Management of Change (MoC) processes for life cycle of global wells activities
  - Documents for MoC and risk management practices have been developed for global drilling operations and issued to the Global Wells Organization, covering temporary and permanent changes as well as conformance with the new risk management practice
  - A training program on management of change has been developed, with 301 attendees to date (74% of total identified audience)
- Strengthen the technical authority's role in cementing and zonal isolation.
  Complete
- 9. Enhance drilling and completions competency programs for key operational and leadership positions
  - A proposal for the key roles to be included in the enhanced competency programs in BP's global drilling operations has been approved
  - A well control competency assurance program has been instituted for well site leaders (WSLs), with the 374 active WSLs assessed (238 drilling WSLs and 136 intervention/completion WSLs)
  - Drilling WSL assessments have been conducted in all 14 Regions while assessments on intervention/completion WSLs have now commenced in 4 Regions. Both drilling and the new intervention/completion assessments will continue in unison throughout 2012.
- 10. Develop advanced deepwater well control training **Complete**
- 11. Establish BP in-house expertise for subsea BOP & BOP control systems
  - A documented set of authorities and accountabilities for the BP subsea and BOP engineering technical authority role has been completed
  - BP's BOP team is now staffed with a team leader and 11 technical specialists.
  - The Segment Engineering Technical Authority (SETA) role has been broken into two roles:

- A BOP Controls SETA has been hired and has now started with BP
- A BOP Equipment SETA has accepted an offer and is expected to begin in September 2012.
- Once these two individuals are in position, this recommendation will be complete.
- Request the International Association of Drilling Contractors (IADC) to develop subsea engineering certification – Complete
- 13. Strengthen our rig audit process to improve closure and verification of audit findings across the rigs we own and contract. **Complete**
- 14. Establish key performance indicators (KPI) for well integrity, well control, and rig safety-critical equipment. Complete.
- 15. Require drilling contractors to implement auditable integrity monitoring system
  - For phase one (subsea) of three phases (subsea, offshore, onshore), leading and lagging indicators for integrity performance monitoring of well control equipment on floating rigs with subsea BOP systems have been documented
  - To validate these leading and lagging indicators, a pilot is being undertaken in the Gulf of Mexico. Post pilot, the information gathered will be used to develop a global standard to define the requirements for reliability, maintenance and integrity monitoring.
  - For phase two (offshore rigs), the pilot results from phase one (subsea) will be used to formulate the requirements of this phase.
  - The final delivery date for this recommendation has been removed pending the results from the pilot

#### Contractor and service provider oversight and assurance

- 16. Assess cementing service provider capabilities **Complete**
- 17. Confirm well control and monitoring practices are defined and applied
  - Requirements for well control and well control monitoring have been defined and BP's well control manual has been updated to include practices for well control and well monitoring. A proposal has been developed to provide verification and assurance that well control and well monitoring practices are rigorously applied
  - BP's Engineering Technical Practice GP10-10 Well Control has been reviewed and revised, and now issued, with a three day workshop developed in order to train key personnel on the updated requirements. Training is expected to commence by the end of 2012.
- 18. Require hazard and operability reviews for surface gas and drilling fluid systems
  - A practice for assessing surface gas handling systems on rigs has been developed, and 27 of 45 hazard and operability studies (HAZOPS) have been completed as of August 2012.
  - Rigs without relevant HAZOPS or with non-conformant HAZOPS have been identified and a performance schedule established to address these issues.
- 19. Include study of all drilling rig surface system hydrocarbon vents in all HAZOPS
  - A document for HAZOP reviews to address a study of all applicable surface system hydrocarbon vents has been developed, and central planning and material development has been completed

- A rig site visual inspection of surface system hydrocarbon vents on offshore operating BP-owned and BP-contracted rigs has been conducted
- 20. Establish minimum levels of redundancy and reliability for BOP systems
  - For phase one (subsea) of three phases (subsea, offshore, onshore), a proposal document identifying BP redundancy and reliability requirements for subsea BOP control systems has been completed
  - To validate these requirements, a pilot is being undertaken in the Gulf of Mexico. Post pilot, the information gathered will be used to develop a global standard to define the requirements for reliability, maintenance and integrity monitoring.
  - For phase two (offshore) the pilot results from phase one (subsea) will be used to formulate the requirements for this phase.
  - The final delivery date for this recommendation has been removed pending the results from the pilot.
- 21. Strengthen BP's requirements for BOP testing by drilling contractors, including emergency systems
  - For phase one of three phases, a proposal identifying requirements for subsea BOP testing including emergency systems has been completed and is going through the final approvals process
- 22. Strengthen BP's requirements for BOP maintenance management systems by drilling contractors
  - For phase one of three phases, a proposal identifying requirements for drilling contractors' subsea BOP maintenance management systems has been completed
  - To validate these requirements, a pilot is being undertaken in the Gulf of Mexico. Post pilot, the information gathered will be used to develop a global standard to define the requirements for reliability, maintenance and integrity monitoring.
  - For phase two, the pilot results from phase one (subsea) will be used to formulate the requirements for this phase
  - The final delivery date for this recommendation has been removed pending the results from the pilot.
- 23. Set minimum requirements for drilling contractors' MoC for subsea BOPs
  - A proposal identifying requirements for drilling contractors' subsea BOP MoC systems has been completed and is going through the final approvals process
- 24. Develop a clear plan for remotely operated vehicle (ROV) intervention for each subsea BOP
  - ROV and other intervention methods for subsea BOP emergency operations have been evaluated, and a proposal defined including emergency options for shearing pipe and sealing the wellbore
  - An Operating Practice on ROV Intervention for Subsea BOPs has been revised and issued to the organisation. A 2 hour work-shop was developed in order to train key personnel, with 106 (80% of identified audience) going through the training by end July 2012.
- 25. Require contractors to verify blind shear ram performance capability
  - For phase one of three phases, a proposal document identifying requirements for contractor qualification processes for subsea BOP blind sheer ram pipe shearing performance and management of drill pipe inventory has been completed and is going through the final approval process

- For phase two a similar document has been developed as well as a draft Offshore Surface BOP Practice and will be published following the pilot being conducted in the Gulf of Mexico
- 26. Include testing and verification of revised BOP standards in rig audit
  - Upon completion of recommendations 20-25 a testing and verification effort will be conducted

# Updated project timeline<sup>2</sup>

#### 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, well 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 a 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





Subsea

Legend – Recommendation Level

🔶 Document issue date



Recommendation completion (Est.)



<sup>2</sup> These timelines are estimated and based on existing facts and circumstances. They can shift due to complexity, resource availability and evolving regulatory requirements.