Managing potential risk in Wells

Bernard Looney
Executive Vice President - Developments
Cautionary Statement

This presentation and the associated slides and discussion contain certain forward-looking statements concerning the businesses, operations and strategy of BP. By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that will or may occur in the future. Actual results may differ from those expressed in such statements depending on a variety of factors, including changes in regulatory standards and operational requirements; the availability of personnel and other resources; the successful engagement with BP's external stakeholders, including industry-wide bodies and contractors; the requirements of BP's existing contractual and legal obligations; the timing and successful implementation of Bly Report governance, including BP's centralised wells organisation and the Safety & Operational Risk Organisation; the timing and successful implementation of the Bly Report recommendations; and other factors discussed elsewhere in this presentation, the associated slides or under “Risk factors” in our Annual Report and Form 20-F 2010 as filed with the US Securities and Exchange Commission (SEC).
### Our approach to managing potential risk in Wells

<table>
<thead>
<tr>
<th><strong>Global Wells Organization</strong></th>
<th>Consistency</th>
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<tr>
<td>– launched in the fourth quarter of 2010</td>
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<tr>
<th><strong>Framework to reduce risk in Wells</strong></th>
<th>Focus</th>
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<td>– outlined further the group in the first quarter of 2011</td>
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<tr>
<th><strong>BP investigation (Bly Report) recommendations</strong></th>
<th>Prevention</th>
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<td>– work began in fourth quarter of 2010</td>
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<th><strong>Verification and audit</strong></th>
<th>Assurance</th>
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<td>– site and group-level changes rolling out now</td>
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Global Wells Organization, with S&OR assurance

Group CEO
Bob Dudley

EVP Production
Bob Fryar

EVP Developments
Bernard Looney

EVP Exploration
Mike Daly

EVP Strat. & Integration
Andy Hopwood

EVP Safety & Operational Risk
Mark Bly

VP Global Wells

SVP Global Projects

4 VPs - Areas

VP – Engineering

Managing:
- Delivery in compliance with regulations
- Conformance with BP standards and practices

Managing:
- Developing & embedding standards
- Discipline leadership teams
- Building capability
- Knowledge management

Managing:
- Delivery of the Bly Report recommendations

Managing:
- Setting standards
- Providing assurance of compliance and conformance

VP S&OR Dev’ts

VP S&OR Wells
Our strategic framework works to further reduce risk in Wells

Further reducing the **frequency** of an event through:

1. Prevention

Reducing the **consequences** if one occurs by focusing on:

2. Containment and isolation
3. Spill response
4. Relief wells
5. Crisis management

Enhanced BP standards are being developed or updated in each of these areas.
Prevention

Prevention is managed via:

- A new **centralised wells organization** under a single Head of Global Wells

- A **7-point multi-year agenda:**
  1. Standards including OMS
  2. Compliance
  3. Capability
  4. Risk
  5. Redefine performance
  6. Contractor management
  7. Technology

- Prioritized implementation of the **Bly Report recommendations**

However these activities take time to deliver with quality down to the front line, across our global operations. As such, in parallel we are also:

- Issuing **interim guidance** and **standards**

- Increasing our **oversight** of our operations
Immediate actions, interim guidance & standards

These actions started in September 2010 and have been rolled out in the regions.

- Blow-out preventers
- Cementing
- Risk management reviews
- Negative pressure testing
- Assessment
- Verification
- Process safety performance management
- Contractor and service provider oversight

These actions started in September 2010 and have been rolled out in the regions.
BP’s investigation into the Deepwater Horizon accident drew upon the expertise of more than 50 technical and other specialists from within BP and the industry.

The Bly Report concluded that there were multiple causes involving multiple parties.

Eight key findings:
1. The annulus cement barrier did not isolate the hydrocarbons
2. The shoe track barriers did not isolate the hydrocarbons
3. Negative pressure test accepted - well integrity not established
4. Influx not recognised until hydrocarbons were in the riser
5. Well control response actions failed to regain control of the well
6. Diversion to the mud gas separator – gas vented onto rig
7. Fire and gas system did not prevent ignition
8. BOP emergency mode did not seal the well

26 recommendations impacting people, process and plant.
Bly Report

- Requires implementation with quality and integrity properly balanced alongside pace to ensure embedment at the front line in a sustainable way.
- Covers BP-owned and contractor-operated operations
  - Around a dozen countries
  - 60+ offshore and onshore rigs
  - 20+ cementing facilities located across the globe
  - 16 rig contractors
- Requires engagement with internal and external stakeholders
  - With some involving actions by industry-wide bodies and contractors
- Must take into account multiple regulatory bodies
- Allows for changes as we learn from industry efforts and other investigations
- Interdependencies within the program and with other functions and activities within BP
SEEAC, chaired by non-executive director William Castell, monitors BP’s global implementation of the measures recommended in the Bly report through ongoing updates.

Quarterly updates to the group operations risk committee, which includes Bob Dudley and Mark Bly.

Executive steering committee, includes Bernard Looney (EVP - Developments), Mark Bly (EVP – Safety & Operational Risk), the Group Head of Operations Audit and the General Auditor, provides a bi-weekly report to the executive team.

This dedicated team is developing the standards and requisite training, and coordinating the implementation across BP and with contractors.

The GWO is ultimately responsible for embedding the recommendations in each of BP’s operational regions.

Independently confirm that the deliverables are verifiable and actions closed. Perform audits to establish that the program is delivered.
Programme organization

Project Team – c. 40 people assigned to date
Key steps taken to assure successful delivery

Knowledge management

- Employ past learnings, i.e. Texas City

Organization

- Program vs project structure
- Internal and service supplier experts

Terms of references (ToRs)

- Alignment of recommendations with planned activities and deliverables

Action tracker

- Accountability drives performance

Verification tracker

- Upfront alignment of deliverables with verification closeout requirements

Performance reporting

- Actual versus planned performance
The process for implementing the Bly Recommendations is firmly in place. The timelines are estimates based on existing facts, circumstances and planning status. While these estimates reflect the team’s best judgment, they can change depending on circumstantial factors such as complexity, resource availability and evolving regulatory requirements.
## Contractor and service provider oversight and assurance

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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<tr>
<td>16 Assess cementing service provider capabilities</td>
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<td>17 Confirm well control and monitoring practices are defined and applied</td>
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<td>18 Require hazard and operability reviews for surface gas/drilling fluid</td>
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<td>19 Include study of all surface system hydrocarbon vents in all HAZOPs</td>
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<td>20 Establish minimum levels of redundancy &amp; reliability for BOP systems</td>
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<td>21 Strengthen BP’s requirements for BOP testing by drilling contractors</td>
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<tr>
<td>22 Strengthen BP’s requirements for BOP maintenance by drilling contractors</td>
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<tr>
<td>23 Set minimum requirements for drilling contractors’ MOC for subsea BOPs</td>
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<td>24 Develop a clear plan for RCV intervention for each of BP’s operating</td>
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<td>25 Require contractors to verify BSR shearing performance capability</td>
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<tr>
<td>26 Include testing &amp; verification of revised BOP standards in rig audit</td>
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Verification and audit

Self-verification
- Site visits by Executive Vice President to provide additional assurance
- Stage gate verification processes
- Enhanced rig start up checklist, including safety critical equipment, emergency drills and personal competency

S&OR assurance – by deployed teams
- Approve rig start-up checklist
- Approve rig audit action item completion
- Approve any deviations and associated risk assessments
- Approve personnel in critical roles – with several rejected to date
- Verify Bly Report recommendation action closure
- Approve all enduring risk action plans ongoing

S&OR audit
- S&OR Audit remit will include Wells activities
- Rig audit will move into S&OR bringing independent assurance
- S&OR will verify the closure of all 26 Bly report recommendations

Group audit
- Group Audit will audit the S&OR assurance process
- They will conduct 3 audits in 2011
Keeping you informed

- We’ll be providing periodic updates, indicating closure or progress of each the Bly Report recommendations

- Available at bp.com/safety

- First update will be in July 2011 – until all actions are closed