Status of Bly Recommendations

Implementation of IIT Report Recommendations

- September 8, 2010 BP IIT Report issued:
 - Investigation made 26 recommendations
 - Over ~180 deliverables
 - Purpose: "to enable prevention of similar accidents" by "strengthening the defensive physical or operational barriers needed to eliminate or mitigate hazards."
- Recommendations Cover 2 Broad Categories:
 - DWOP and OMS
 - Contractor oversight and assurance

Source: TREX 0001 D 4367.2

Implementation of IIT Report Recommendations

Immediate Implementation Actions:

- Immediate action taken to address all 8 Key Findings
- Interim Guidance temporary measures for safety of ongoing operations

Bly Recommendation Implementation Team:

- At its peak, ~85 personnel dedicated to implementation
- Numerous others working on implementation in the line

D 4367.3

Implementation of IIT Report Recommendations

14 recommendations already complete at the global level:

- √ 1.1 Update and clarify cementing practice and guidelines
- 1.3 Update technical practices to address (a) well design consideration of negative pressure testing and (b) casing lock-down requirements.
- 1.4 Review and update Engineering Technical Practice (ETP) on Working with Pressure to include negativepressure testing.
- √ 1.6 Propose recommended practice for foam cementing to API
- 2.1 Strengthen the technical authority's role in cementing and zonal isolation
- 2.3 Develop an advanced deepwater well control training program that supplements current industry and regulatory training.
- 2.4 Establish BP's in-house expertise in the areas of subsea BOP and BOP control systems
- 2.5 Request that IADC review and consider the need to develop a programme for formal subsea engineering certification.
- √ 3.1 Strengthen rig audit process to improve closure and verification of audit findings.
- √ 4.1 Establish key performance indicators for well integrity, well control, and rig safety-critical equipment
- √ 5.1 Conduct an immediate review of the quality of the services provided by all cementing service providers.
- 7.1 Require HAZOPs for surface gas and drilling fluid systems
- √ 7.2 Include study of all drilling rig surface system hydrocarbon vents in all HAZOPs.
- √ 8.5 Develop a clear plan for ROV intervention for each subsea BOP.

Source: TREX 48239 D 4367.4

Recommendation 1.1 - Cementing Guidelines and Associated Engineering Technical Practices (ETPs)

✓ COMPLETE

- Revised ETP 10-60 issued globally
 - Including training, gap assessment, MoC
- Developed and rolled out nine guides covering key cementing activities
- Independent third-party verification of testing results for critical wells in the Gulf of Mexico.
- Contractor personnel evaluated and assessed
- Technical cementing experts required to approve Basis of Design (BoD) and procedures

Source: TREX 48239 D 4367.5

Recommendation 1.4 - Review and Update GP 10-45 to include negative pressure testing

✓ COMPLETE

- Revised ETP GP 10-45
 - New requirements for negative-pressure testing
 - Incorporated into a Well Control Training program
- Detailed procedures:
 - Rig specific configuration
 - Contractor sign off
- Independent verification and approval of pressure integrity testing:
 - Each test requires sign-off; no tests approved on rig
 - WSL and Contractor (Toolpusher) involved in test sign-off; recommendation sent to shore for approval
- Third WSL who is "Lead": Required to sign off; liaison with contractor

Source: TREX 48239 D 4367.6

Recommendation 2.3 Advanced Deepwater Well Control Training Program

✓ COMPLETE

- Deepwater well control training program developed
- Mandatory for applicable BP and drilling contractor staff involved in deepwater operations
- Embeds lessons learned from Deepwater Horizon accident
- Includes training regarding pressures; including negative pressure testing

D 4367.7 Source: TREX 48239