

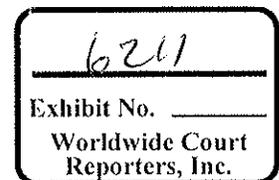
From: Tooms, Paul J  
Sent: Mon Nov 22 16:37:35 2010  
To: Birrell, Gordon Y  
Subject: Tooms Perf Reviw Material  
Importance: Normal  
Attachments: 4Q10 Engineering IPC Scorecard v0 22Nov10.ZIP; P Tooms - End of Year Review 2010.ZIP

Here are e-versions of Documents that we discussed this morning.

Paul

Paul Tooms  
VP Engineering  
Mobile phone number: +44 (0) 778 597 3421

Address: BP Exploration Operating Company Ltd Building H Chertsey Road Sunbury-on-Thames Middlesex TW16 7LN  
Company Details: BP Exploration Operating Company Ltd  
Registered Office: Chertsey Road Sunbury-on-Thames Middlesex TW16 7BP  
Registered in England and Wales Number 305943



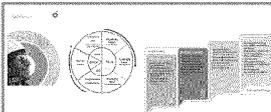


**Engineering**  
Paul Tooms

**Program Scorecard**  
4Q 2010



Program Deliverables & Progress	Things to be proud of.....	Meetings/Events
<p><b>S&amp;O:</b></p> <ul style="list-style-type: none"> <li>• Personal safety - OBE RIV, ERF XRF ★</li> <li>• Contribute to EOP LOPV reduction ★</li> </ul> <p><b>Capability</b></p> <ul style="list-style-type: none"> <li>• Analyse Discipline Health ✓</li> <li>• Strengthen Discipline Health ✓</li> <li>• Work with V, HSE &amp; Eng and EIS on development and support travel ✓</li> <li>• Work Org Cap. develop 10 year road map for core engineering disciplines ★</li> </ul> <p><b>Efficiency</b></p> <ul style="list-style-type: none"> <li>• Contribute to EOP planned loss reduction ★</li> <li>• Contribute to EOP unplanned loss reduction ★</li> </ul> <p><b>Activity</b></p> <ul style="list-style-type: none"> <li>• Priorities plan for coming months including refreshing 25 ETPs with Cap ★</li> <li>• Deliver Annual Engineering Plan ✓</li> <li>• Create plan for document management common process ✓</li> <li>• Smooth transition to IIB, involving Gate/SEIAs with EDR process &amp; EPMs contracts ★</li> <li>• Deliver CI projects:               <ul style="list-style-type: none"> <li>• Reduce engineering complexity by CE SEIAs working with IIB ★</li> <li>• Strengthen role of BP as informed buyer (defining market) ★</li> <li>• Roll out process and training materials for EPI doc management and GA / QC content ★</li> <li>• Develop leadership capability for incident recovery ★</li> </ul> </li> </ul> <p><b>Issues</b></p> <ul style="list-style-type: none"> <li>• Total Gross Costs - Engineering</li> </ul>	<p><b>Discipline Health</b></p> <ul style="list-style-type: none"> <li>- Analysis of discipline health completed. Working closely with Org Cap.</li> <li>- Limited progress on strengthening disciplines</li> <li>- Training and Development. Excellent courses available and under development (Pipeline, Structural integrity, FA, Prod Chem, Process eng, CI for engineers...), Manchester, ADP - 1<sup>st</sup> Cadre complete</li> <li>- Excellence programmes during development</li> </ul> <p><b>Discipline Essentials</b></p> <ul style="list-style-type: none"> <li>- Completed new e-learning course on Valves, Storage Tanks, CUJ, in-service inspection...pressure vessels in process. structure course delivered</li> <li>- Marine ETPs completed jointly with Shipping</li> <li>- hpMS structural integrity risk management tool has been fully developed. Pull from business to deploy (imminent)</li> <li>- Creation and update of 92 ETPs planned for 2010, will deliver 85% of work scope.</li> </ul> <p><b>Risk assessment and reduction</b></p> <ul style="list-style-type: none"> <li>- ICE CI Projects (SIS Lifecycle, Alarm Management, Production Measurement) - following strong engagement of front-line discipline engineers through SPU TAs.)</li> <li>- Corrosion Inhibitor availability CI focussing on subsea...SPUs engaged in Improvement Plan</li> <li>- Pipeline Risk and Information Management CI project execution strategy (bpPRIM)</li> <li>- Relief Systems CoE: SPU communications, training, and tech support (many assets and MPs supported) ongoing; participating in API 520/521 Committee</li> <li>- 4 Critical Valve GA's signed...kick off meetings held</li> </ul> <p><b>SPU Support - extensive support in monthly progress reports</b></p> <p><b>Challenges that we are managing...</b></p> <ul style="list-style-type: none"> <li>- Extensive support to Deepwater horizon response, investigation and follow up</li> <li>- Linking up processes around Learning, serious SIS, eclips, ETPs, IIB and PDI</li> <li>- Budget issues associated with third party and T&amp;E</li> </ul> <p><b>Issues beyond our control or that need Senior support</b></p> <ul style="list-style-type: none"> <li>- Lack of clarity on coordination of managed moves and external recruitment strategy. CDO defaulting to agency staff when discipline health declining.</li> </ul> <p style="font-size: small; text-align: center;">       ✓ Believed    ★ On-track    ⚠ At-Risk    ⊗ Not Started     </p>	 <p>December VP telecom</p> <hr/> <p><b>Upcoming "mini" Milestones</b></p> <p>CDO engagement follow-up sessions for:</p> <ul style="list-style-type: none"> <li>• Engineering recruitment</li> <li>• SLS management &amp; use</li> <li>• PDI engineering data ownership</li> </ul>



# Process & Process Safety Engineering

Cheryl Grounds

Scorecard  
7 November 2010



**Program Deliverables & Progress**

**People**

- Analyze and Strengthen Baseline Health
- Work with VP PSE & Eng and EAs on development and managed move
- Develop 10 Year road maps for core engineering disciplines
- Develop Issue The P&SE BP Way

**Process**

- Efficient, tested, issue solved EHS
- Build Group Segment Defined EHS
- Improve standardization through CHIEF/SEHS working with ORO
- Create and execute a written communication and engagement plan

**Performance**

- Maximize early project involvement of Chiefs/SEHS through P&SE/HSSEPs
- Work with ORO to improve relationships with OMS contractors and key suppliers in support of standardization, CI, and career development opportunities
- Reduce production losses through improved incident and upset recovery process and personnel
- Develop execution plans and deliver CI projects: Relief Systems and Quality HAZOPs

**Learning**

- Identify selected opportunities and develop Distance Learning offers to provide increases access to learning offers to engineers worldwide
- Deliver 3P course on Pressure Relief & Flare
- Continue to build Network communications to support business delivery
  - On Track, progress made
  - Effort started
  - Not yet started

**Things to be proud of----**

- DW Horizon Response and Investigation
- Continuous Improvement - Relief and Disposal CoE: SPU communications, training, and tech support (Shah Deniz, Angela, Aurora, Andrew Area Development, Clair Ridge, In Anonas Gas Compression, Quad 204, West Nile Delta, In Saiah Gas Southern Fields, Juniper) ongoing; participating in API 520/521 Committee
- Continuous Improvement - Quality HAZOP Project: training and support ongoing including support in bpIT
- Building the way we do engineering through drafting P&SE The BP Way (now with NLT/CoP for review/input) and participation in Engineering Conference roll outs.
- Guidance issued on gas treating, coal bed methane, and LNG commissioning to NLT for comment
- LNG engineering support to Tangguh, Browse, Isle of Grain, Cyprus LNG terminal bid
- LoSal engineering support on Clair Ridge, Endicott, Angela, Mad Dog, and Kaskida
- Supporting MAR analyses in Alaska, Vietnam, Quad 204 Project

**Challenges that we are managing---**

- Align process owners of business units to the Engineering Center as the CDO.
- Need to fill outstanding Engineering Center SME needs being delayed by restructuring efforts.
- Budget issues associated with third party and T&E

**Issues beyond our control or that need Senior support**

- Understanding impacts of restructuring on engineering

**Learning Offers**



**Completed**

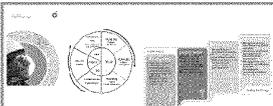
Pressure Relief: *Alaska, Houston*  
 HAZOP: *Aberdeen, Baku, NG, Angola, Alaska*  
 Process Safety Fundamentals: *Aberdeen, Houston*  
 Consequence Modelling: *Aberdeen, Carson (RAM)*  
 Hazard Evaluation & Risk Assessment Modules: *Houston*  
 Best Exchanger: *Sanbury, Houston*  
 LOPA - *reel based*  
 Surface Sand Management: *Aberdeen*  
 FlareNet: *Sanbury, Houston, Aberdeen*  
 MAR - *Sanbury*

**Upcoming**

Pressure Relief: *Houston, Sanbury*  
 HAZOP: *NG, Sanbury, Alaska, Canada, Egypt, Pakistan, Trinidad*  
 Process Safety Fundamentals: *Indonesia (2 locations)*  
 LOPA - *Trinidad*  
 FlareNet: *Houston*  
 Consequence Modelling: *Houston*  
 Surface Sand Management: *Sanbury, Houston, Aberdeen*

**Hitting the Numbers**

- Budget: on-track (excepting CI T&E)
- Discipline Health: concerns with SPU/MP TA and EPT staffing and succession



# Subsea & Floating Systems

Dave Brookes

### Program Deliverables & Progress

- People**
- Analyse and Strengthen Discipline Results
  - Work with VP HSE & Eng and Ops on development and manager review
  - Develop 10 year road maps for core engineering disciplines
  - Develop Issue the SSPs for Key Elements
  - Prioritize, review, issue selected ETPs
  - Rated Group Segment Defined ETPs
  - Improve standardization through OLEFs/VEPs working with CDO
  - Create and execute a written communication and engagement plan
- Performance**
- Enable early project involvement of ETPs/NTAs through ERS/PSR/RS
  - Work with ETC to improve relationship with EWS contractors and key suppliers in support of standardization, CL and career development opportunities
  - Reduce production losses through improved incident and upset recovery process and personnel
  - Develop execution plans and deliver 21 projects: Relief Systems and Quality HAZOPs
- Training**
- Identify selected opportunities and develop Distance Learning offers to provide increased access to learning offers to engineers worldwide
  - Continuing to build Network communications to support of business delivery
- Delivered  
 On Track, progress made  
 Effort started  
 Not yet started

### Things to be proud of.....

- Multi-discipline support to DWH recovery May – Aug, ongoing on Flowrate task group
- First draft of revised Subsea Reliability Strategy circulated to CDO, revised failure data collection ETP
- Marine ETPs completed jointly with Shipping
- Championing HVL's from analysis of PEI data set on larger losses.
- Ops and projects support including,
  - WNE EDR, Devenick & Kinnoull Subsea Peer Assists,
  - Drilling riser analysis for Egypt, Libya, Flip trial on Schiehallion flowline
  - Production Chemistry support to North Sea, Q204, ADCO, Libya
  - Flow Assurance support to Alaska, Devenick, Kinnoull, Amethyst, Browse
  - Riser analysis support to Angola B31, B18 conductors, Shah Deniz Ops, JIP
- Significant industry recognition for Structures/Metoccean staff inc Chair ISO TC67
- Candidates selected for second cadre of Subsea ADP, 1<sup>st</sup> cadre progressing well
- Regional network mtg held in Aberdeen, 90 attendees
- External Reputation building – Petrobras TCA, OTC, OLF, DOT

### Challenges that we are managing...

- Acute shortage of Subsea skills, working with CDO and SPU's to integrate vacancies picture & recruitment plan.
- Role of CE SS & FS team with CDO for New Central Appraise/Select team, sharing v competition for resources
- Assist CDO in creation of new Global SS Hardware team,

### Issues beyond our control or that need Senior support

- Integration of Ops, Projects skills shortages into global recruiting campaign
- CDO involvement in local Network activities eg CDP's



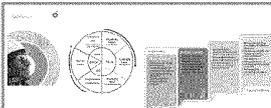
## Pipeline and Civil Engineering

Ian Neilson



### Scorecard 3Q 2010

Deliverables & Progress	Things to be proud of.....	Meetings/Events
<p><b>People</b></p> <ul style="list-style-type: none"> <li>✓ Identify priority discipline health gaps and initiate action to close. Q4</li> <li>★ Create formal methodology for characterising discipline demand and incorporate into a single process for ongoing management of discipline health. Q4</li> <li>⚠ Support MP for Org capabilities in creation of the 6m year roadmap for pipeline and civil engineering disciplines. Q4</li> </ul> <p><b>Process</b></p> <ul style="list-style-type: none"> <li>★ Close remaining key gaps in our IPI suite</li> <li>★ Re-focus all Network external engagements</li> <li>★ Create Pipeline and Civil Engineering Best Practice Practices Q4</li> </ul> <p><b>Performance</b></p> <ul style="list-style-type: none"> <li>★ Provide support to key SPU's to deliver priority actions including final pipeline risk strategy work. Q2</li> <li>★ Progress at least one segment side CI project in each C&amp;I through to operate stage during the year Q4</li> <li>★ Roll out DRAS detailed pipeline risk assessment tool to at least 2 more SPU's Q4</li> <li>★ Roll out bpWIS to remaining SPU's with major structures Q4</li> <li>✓ Provide transparent tracking of ILLI global agreement performance KPI's Q4</li> <li>✓ Prepare a strategy to increase proportion of pipeline and civil activity managed under category management</li> </ul> <p><b>Learning</b></p> <ul style="list-style-type: none"> <li>★ Deliver at least one training offer in each discipline at a level beyond "awareness" Q4</li> <li>★ Deliver 2 sessions of the Introductions to Pipeline Intro, 2 sessions of geotech Intro and 2 sessions of Structures Intro courses. Q4</li> </ul>	<ul style="list-style-type: none"> <li>• bpPRIN is finally resonating outside of the discipline in SPU's: North Sea and Alaska created specific pipeline validation teams, 60M not far behind</li> <li>• P-C response to Serrette boat impact incident...silent running!</li> <li>• 5 BP Papers and key note address at ASME International Pipeline Conference</li> <li>• 4 BP Papers and key note at ISFPG (Geotech Olympics!)</li> <li>• Pipeline repair/ intervention work identified safety critical supply chain weaknesses; control in place</li> <li>• Global contract for pipeline legacy data conversion in place</li> <li>• ILLI first run success CI project delivered guidance document and training course supported by strategic supply agreement vendors.</li> <li>• Structures training course delivered in Trinidad</li> <li>• CRA material selection/ validation CI project initiated after pressure from several SPU's</li> </ul> <p style="background-color: #333; color: white; padding: 2px;"><b>Challenges that we are managing...</b></p> <ul style="list-style-type: none"> <li>• EPT Pipeline and Civil team fully stretched and reliant on agency staff to deliver workload.</li> <li>• Failed to recruit pipeline engineering challenger for Sunbury team</li> <li>• Constraints in L&amp;D resource to support training offers</li> <li>• Lack of resource to deliver excellence programme, delayed to end Q1 2011</li> <li>• Cross discipline collaboration needs more work, too much work in silos</li> <li>• CDO interface not working</li> </ul> <p style="background-color: #333; color: white; padding: 2px;"><b>Issues beyond our control or that need Senior support</b></p> <ul style="list-style-type: none"> <li>• Discipline health still declining; SETA retiring, further pipeline challenger resigned, level 1's want to leave discipline...all while CEO/ SPU demand increasing and pipelines/ structures viewed as source of high consequence events</li> <li>• CDO defaulting to agency staff when discipline health declining.</li> </ul> <p style="font-size: small;">             ✓ Delivered    ★ On-track    ⚠ At-Risk    ⊗ Not Started         </p>	<p style="background-color: #333; color: white; padding: 2px;"><b>Meetings/Events</b></p> <div style="text-align: center; font-size: x-small;">Sept</div>  <ul style="list-style-type: none"> <li>• ASME International Pipeline Conference</li> <li style="text-align: center;">Oct</li> <li>• Cross SPU Pipeline validation workshop</li> <li>• North Sea validation prioritisation workshop</li> <li>• ISFPG geotech conference</li> </ul>
		<p style="background-color: #333; color: white; padding: 2px;"><b>Hitting the Numbers</b></p> <ul style="list-style-type: none"> <li>▪ Constrained T&amp;E and TF activity to fit the constrained budget</li> <li>▪ No control over man power cost</li> </ul>
		<p>Rev 0.</p>



## Mechanical & Materials Engineering

Mark Nichols

Scorecard  
3Q 2010



### Program Deliverables & Progress

**People**

- Analyze & reorganize discipline health
- Publish O&M processes and development model
- Develop 10 year road map for Mechanical Engineering
- Analyze & re-structure of discipline composition and organization

**Process**

- Enriched RE for E&I and section RE for Mechanical & Materials disciplines
- Prioritize, review and re-configure EIPs
- Improve standards for working with O&M and E&I contractors
- Test national E&I across engineering disciplines

**Performance**

- Analyze early project involvement through E&I/PHSSRs
- Work with O&M to improve relationships with E&I contractors, key suppliers to support standardization, CI and career development
- Reduce production losses working with Operations
- Improve RE project delivery through strategic integrated approach
- Complete critical valve GAs and RoC

**Learning**

- Complete CI projects: Critical Valves, SBRP, DEK, Corrosion Inhibitor, etc.
- Develop e-Learning courses: piping, tanks & heat exchangers (2011)

- ✓ Delivered
- In Track, progress made
- Effort started
- Not yet started

### Things to be proud of

- Progressed significantly in understanding of discipline health in MCW (95%), RE (95%) and SM (80%) working with DOC/SDBN on managed moves
- Developing centralized engineering core discipline models with CDO-MCW and RE
- cXcellence program scoped in Static Mech-MCW & RE following closely
- RP for Mechanical & Materials Engineering rev3 drafted but more details needs to be embedded rigor
- Good progress on EIP refresher program-prioritized on 21 EIPs
  - o GP36-20: draft to EDS, reviewed by subsea engineering, SPU TAs and key suppliers (Cameron, P&C, Vector)
- Maintained SETA/SME participation in EDR/PHSSRs for WND, Juniper, Devenick, Kimmoull, Q204
- Developed an integrated strategy for RE & GBRs
- 2 Cadres of Mechanical Challengers thru e-immersion program
- Published e-learnings for valves, storage tanks, CUI, In-service Inspection & Testing, Fit for Service
- SPU support-ALNG, Tangguh, North Sea, Witch Farm, Alaska, Trinidad, Thunder Horse, PSVM, Scarv, GUP, SE2

### Challenges that we are managing

- Working across SPUs to reduce RE production losses
- E&I contractor engagement and standardization approach with CDO
- SPU CI engagement-Corrosion Inhibitor availability focussing on subsea-SPUs engaged in RCAs but low priority to build and execute

### Issues beyond our control or that need Senior support

- Managed moves process and recruitment plan approval
- Integration with CDO




## Instrument, Control & Electrical Engineering

Donald Campbell-Brown

### Scorecard 3Q 2010



Deliverables & Progress	Things to be proud of.....	Meetings/Events
<p><b>People</b></p> <ul style="list-style-type: none"> <li>★ Develop a thorough understanding of ICE discipline health. Agree priority actions (24)</li> <li>▲ Think with the relevant EEs in strengthened ICE discipline health (44)</li> <li>★ Support creation of the integrated 10 year development plan for core ICE positions (40)</li> </ul> <p><b>Process</b></p> <ul style="list-style-type: none"> <li>✓ Roll out and build engagement with the Segway 30 for Engineering Mgmt. (30)</li> <li>★ Develop the discipline Recommended Practice for ICE (44)</li> <li>★ Strengthen application of ETPs through engagement, training and the front line (40)</li> <li>★ Prioritise (40) and deliver top 5 ETPs (44)</li> <li>★ Ensure continued EPC/PA Advice involvement with the EDE/PMSER process in support of project delivery (40)</li> </ul> <p><b>Performance</b></p> <ul style="list-style-type: none"> <li>★ Deliver three CI projects to the approved execution stage gate (20) and closure of the Execution phase for UPS (44)</li> <li>⊗ Ensure effective implementation of agreed CI recommendations (Relief Systems) (40)</li> <li>★ Establish strong relationships with EPM Contractors (40)</li> <li>★ Establish strong relationships with automation GA holders (40)</li> <li>▲ Implement the strategy for a common ICE applications toolset (40)</li> <li>▲ Strengthen delivery of production efficiency (eg) from control loop monitoring and HART/Fieldbus systems (40)</li> </ul> <p><b>Learning</b></p> <ul style="list-style-type: none"> <li>✓ Course (20) and roll out (40) a communications map / strategy</li> <li>✓ Hold virtual NLT meeting (22)</li> <li>★ Strengthen the suite of Specialised</li> </ul>	<p><b>Things to be proud of.....</b></p> <ul style="list-style-type: none"> <li>• ETP Category 30 'SME Team of the year'</li> <li>• ICE Network Leadership Team virtual meeting in Q3 agreed resource (including SPM) requirements for CI projects and input to creation of 'ICE the BP Way'. Engaged NLT on ICE engineering post Macondo.</li> <li>• NLT and Gatekeeper reviews held for two CI Projects (Alarm Management and SIS Lifecycle Integrity) - now in Execute. CRs completed and reviewed by NLT. Measurement CI project recycled at A-E stagegate with focus redirected on to creation of related ETP.</li> <li>• ETP 30-47 on Alarm Management published (plus balancing revision of 30-45) with significant input (and commitment) from Process Safety.</li> <li>• Monthly 'hot topic' global telecons running for each CoP with active participation from all SPMs. Recent topics have varied from digital security firewall issues to early output from UPS CI Project (in Execute).</li> <li>• Re-accreditation by the IET of ICE Challenge in the UK - conditional on fixing support in years between Challenge graduation and Chartered Status (60PS)</li> <li>• Completed PCN Digital Security eLearning module, to support implementation of GP 30-60 and address concerns raised by S&amp;O1 audit (Downstream - but equally applicable to E&amp;P).</li> <li>• Progress of NSca reliability initiative leveraged by support from EPT, with</li> </ul> <p><b>Challenges that we are managing..</b></p> <ul style="list-style-type: none"> <li>• Prioritisation of EPT resources to deliver against performance contract - balance between (in particular) CI, ETP updates and high priority TSM.</li> <li>• Driving quality into PEI data by closing the loop and encouraging quality</li> </ul> <p><b>Issues beyond our control or that need Senior support</b></p> <ul style="list-style-type: none"> <li>• Campaign of external recruitment to resolve severe gaps in ICE Engineering capability, plus support from SFUs on 'more chains' for pull-through of expertise.</li> </ul> <p style="text-align: center;"> <span>✓ Delivered</span>            <span>★ On-track</span>            <span>▲ At-Risk</span>            <span>⊗ Not Started</span> </p>	<p style="text-align: center;"><b>Meetings/Events</b></p> <div style="text-align: center;">  <p>3Q</p> </div> <ul style="list-style-type: none"> <li>• ICE NLT meeting</li> <li>• Upstream Process Control class (Baku)</li> <li>• Advanced Topics in SIS Workshop</li> <li>• Automation GA Business Review meetings (with CEO and PSCM)</li> </ul> <p style="text-align: center;"><b>Hitting the Numbers:</b></p> <ul style="list-style-type: none"> <li>• Delivery of activities constrained by numbers: recruitment success is critical</li> <li>• Within the Headcount central number</li> </ul>

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## Instrument, Control & Electrical

Deliverables & Progress	
<b>People</b>	
• Support analysis and strengthening of ICE discipline health.	*
• Support creation of 10 yr development plan (BP excellence programme).	★
• Recruit to bring ICE team to full strength, with Discipline Leads.	★
<b>Process</b>	
• Develop the discipline Recommended Practice for ICE.	★
• Prioritise, revise and issue selected [5] ETPs.	★
<b>Performance</b>	
• Deliver 3 CI projects to Appraise/Execute stagegate, closure of UPS Execute phase.	★
• Support effective implementation of agreed CI recommendations (Relief Systems).	★
• Support strong relationships with automation general arrangement holders.	★
• Support the strategy for a common ICE applications toolset (and the tools).	★
• Strengthen delivery of production efficiency (e.g.) from control loop monitoring and HART/Fieldbus systems.	★
• Target work split TSW 35%; TS 15%; DEss 25%; CI 25%, follow prioritisation matrix.	★
Learning delivered <input checked="" type="checkbox"/> not started <input type="checkbox"/>	
• Support strengthening of the suite of Risk	

### Achievements and Successes

- Intern Chinachi Onwuchekwa agreed to join ICE team as PhD Electrical Challenge Engineer in 2011.
- TSW: Completed SIS Stage 3 FSA on Aurora Project for Sullom Voe.
- TSW: Completed delivery of prototype Na Kika subsea health monitoring system.
- TECH: Recruited IC contractor assistance for Angola Block 31 sub sea heating work.
- TECH: Completed shallow water testing for Subsea Switchgear JIP in Oslo.
- DEss: Delivered ICE recruitment event at Imperial College London and completed technical interviews for UK BP Tier 3 ICE scholarship candidates.
- DEss: Completed 22 off ICE Activity 1 Pagers for ICE the BP Way.
- DEss: GP 30-45 / 47 published (HMI and Alarm Management).
- DEss: Completed 2010 DP in-kind contribution for Abnormal Situation Management Consortium.
- DEss: Completed draft of sections of API chapter 20.6 draft document on measurement process flow diagrams and allocation logic.
- CI: Completed GIS 12 354 UPS Batteries revision.
- CI: Scheduled Alarm Management Execute Stage project meetings and steering group meetings.
- SETA: Reviewed PSVM FAT. Delivered simulation module on EM Course at Manchester University. Completed Stage 2 FSA for Egypt Ha' py project. Completed Electrical excellence areas of performance material (10 year plan).
- CE: Delivered ICE contribution to Common Tools List.

### Look Ahead

- Upcoming events: Introduction to SIS (UK SE 3<sup>rd</sup> November), TRAC Training (UK SE 4<sup>th</sup> November), ICE USA Team Building Event (9<sup>th</sup> November), Emerson Technology Information Exchange (UK 18<sup>th</sup> November), UK SE Upstream Process Control Course (w/c 22<sup>nd</sup> November), ICE UK SE Regional Meeting (30<sup>th</sup> November).

TECH = technology support, TSW = technical service work, CI = continuous improvement  
 DEss = discipline essentials, SETA = segment engineering technical authority, CE = chief engineer

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## Mechanical & Materials

Deliverables & Progress	Achievements and Successes
<b>People</b> * Analyse and strengthen discipline health ★ * Develop 10 year road map ☒	<ul style="list-style-type: none"> <li>• TSW: Pressure vessel course delivery in Houston. Provide mechanical input to G. Plutonia RCFA</li> <li>• TSW: Roll out of Valve Task Force in GOM. Valve assurance testing for North Sea, Cruden Bay hot tap job</li> <li>• TSW: Support for Howden Compressor for NAG Florida River</li> <li>• TSW: Quad 204 support with compressor bid evaluation</li> <li>• TSW: Reliability and maintenance review at Ras Shukeir</li> <li>• TSW: Establishing H2S limits for West of Shetland, following extensive review of subsea materials</li> <li>• DEss: GP35-20 Draft completed, reviewed with Senior leadership and submitted for technical editing</li> <li>• DEss: Integrate North Sea lessons learned into insulation specifications for QUAD 204 and Clair Ridge</li> <li>• SETA: RE Strategy Development and review with Sr. Management</li> <li>• SETA: Annual REI Global Business Review meetings between BP and OEM's</li> <li>• SETA: Condition Monitoring Review meetings</li> <li>• SETA: Mad Dog South Major Project reviews</li> <li>• SETA: Audit of potential Flow Induced Vibration mechanics for Thunder Horse</li> <li>• SETA: Embedding of Skarv low temperature toughness lesson with Quad 204 turret design contractor</li> </ul>
<b>Process</b> * Implement recommended practice (RP) for eng. man. and develop RP for disciplines ★ * Prioritise, revise and issue selected ETPs ★ * Improve standardisation working with CDO and EPMS contractors ☒	
<b>Performance</b> * Work with CDO to improve relationships with EPMS contractors, key suppliers to support standardisation, CI and career development ★ * Reduce production losses working with Operations. ★ * Complete critical valve general arrangements and MoC. ★ * Complete CI projects: Critical valves, Small bore piping & tubing, DLE, Corrosion Inhibitor etc. ★	
<b>Learning</b> * Develop e-Learning courses: Piping, Tanks & Heat Exchangers. ★	
delivered ✓ not started ☒ on track ★ at risk	
<b>Look Ahead</b> <ul style="list-style-type: none"> <li>• Corrosion Management Strategy review</li> <li>• SETA: Update MoC discipline by status, vacancies and gaps</li> <li>• SETA: Update discipline expertise and support developments (CDO)</li> <li>• Corrosion Risk Assessment Workshop</li> <li>• Recruiting</li> </ul>	
<small>TECH = technology support, TSW = technical service work, CI = continuous improvement                      DEss = discipline essentials, SETA = segment engineering technical authority, CE = chief engineer</small>	

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## Pipeline & Civil

Engineering	
<b>People</b>	
• ISG South Fields – Setting up Lessons Learnt activity.	★
<b>Process</b>	
• SCPX – Developed scoping of future work activities with Design Team.	★
• Azerbaijan – Developing a transition plan for the SPU Offshore Structures Technical Authority from an LPT(remote) to an in-country role	★
<b>Performance</b>	
• Pipeline risk and validation review of the North Sea pipeline assets	★
<b>Learning</b>	
• ILI training course in Houston	✓
• Pipeline Engineering the Bp Way course in Port of Spain, Trinidad	✓
• Pipeline Validation Workshop in Houston	✓
• Geotechnics Bp Way Training Course	☒
delivered ✓ on track ★	not started ☒ at risk

### Achievements and Successes

- SETA: Conducted a review of North Sea SPU pipelines in Aberdeen October 19-22
- TSW: Report delivered re slope stability assessment for Block 18 PCC with particular reference to pipelines laid close to peckmarks.
- TSW: Brazil – Initial structural assessment of Polvo platform acquired from Devon Energy (joint effort by Houston & Sunbury)
- TSW: Completed Summary report on SCR fatigue in touchdown point based on BP centrifuge test.
- TSW: WREP rivers – Delivered consultant team Field Reports and initial Risk Assessment.
- TSW: GOM: Kaskida geohazard coring campaign Phase 1 completed; No HSSE incidents.
- TECH: Angola – Completion of the laboratory and soil parameters reporting for Block 18 Platina Chumbo and Cesio project.
- DESS: Presentation on Pipe Soil Interaction to SUT, Newcastle and Lunch and Learn in Sunbury.
- DESS: ETP's – Commenced work on updating ETP's GP 32 46, GN 32 011, GN 32 012 & the new GP for Marine Structures. Agreed scope & price from Atkins to support this work.
- CI: Developed analytical approach to justify high levels soil damping used in PSVM mid-line spool design for fatigue.

### Look Ahead

- 2nd ISFOG Geotechnical conference, Perth, Australia, 08-11 November.

TECH = technology support, TSW = technical service work, CI = continuous improvement  
 DESS = discipline essentials, SETA = segment engineering technical authority, CE = chief engineer

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## Process and Process Safety

Deliverables & Progress	Achievements and Successes
<b>People</b> * Analyse and strengthen discipline health <input type="checkbox"/> ★ * Develop 10 year road map <input type="checkbox"/> ★ * Develop and issue P&PS BP Way <input checked="" type="checkbox"/> ✓	<ul style="list-style-type: none"> <li>• People: SME in Energy Efficiency has accepted offer</li> <li>• People: SME in Simulation - closing in on candidate</li> </ul>
<b>Process</b> * Prioritise, revise and issue selected ETPs <input checked="" type="checkbox"/> ★ * Improve standardisation working with CDO <input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>• CI: Relief and Disposal - Independent review of incident investigation on Greater Plutonic, Set up Skarv project relief review, Issued Technical Note on ice/hydrates in relief systems, Independent review of Valhall Redevelopment Project relief systems design</li> <li>• CI: HAZOP - training for Egypt &amp; MEP &amp; Undertook 5 HAZOP engagement sessions for the contractors under the bp Global Agreements</li> <li>• DEss: The BP Way of P&amp;SE launch version made to the Network</li> <li>• TSW: Leading the GoM ETP 44-70/44-80 Gap Analysis</li> </ul>
<b>Performance</b> * Work with CDO to improve relationships with EPMS contractors, key suppliers to support standardisation, CI and career development <input type="checkbox"/> ★ * Reduce production losses through improved incident and upset recovery process and personnel. <input checked="" type="checkbox"/> * Develop execution plans and deliver CI projects: Relief Systems, Quality HAZOPs. <input type="checkbox"/> ★	<ul style="list-style-type: none"> <li>• TSW: Q204 MAR review, North Sea Bruce, North Africa New Developments</li> <li>• TSW: Multiple heat transfer consultancy including Kinneil TWP reduction project</li> <li>• TSW: Delivered heat transfer training in Houston and delivered presentation on the subject of "Feedback from Operations to Improve Heat Transfer Designs" to the UK's Heat Transfer Society</li> <li>• TSW: Multiple water systems consultancy including Egypt, and progressing codification of know-how</li> <li>• TSW: P&amp;SM and Q204 explosion modelling support</li> <li>• TSW: Expert LNG assistance for Tangguh, including separator CFD study, air cooler modification study</li> </ul>
<b>Learning</b> * Identify selected opportunities and develop Distance Learning offers to provide increased access to engineers worldwide. <input checked="" type="checkbox"/> ★ * Deliver BP course: Pressure Relief & Flare. <input type="checkbox"/>	<b>Look Ahead</b> <ul style="list-style-type: none"> <li>• 1<sup>st</sup> deployment "webinar" for the P&amp;PS Way</li> <li>• Multiple expert relief and disposal define and execute reviews</li> <li>• Continue focus on process engineering codification in separation, sand, produced water</li> <li>• Complete recruitment of simulation SME and Level H Process engineer role, and Level G Process Safety Engineer.</li> </ul>
delivered <input checked="" type="checkbox"/> on track ✓    not started <input checked="" type="checkbox"/> at risk <input checked="" type="checkbox"/> ★	TECH = technology support, TSW = technical service work, CI = continuous improvement DEss = discipline essentials, SETA = segment engineering technical authority, CE = chief engineer

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## Subsea & Floating Systems

Deliverables & Progress	Achievements and Successes
<b>People</b>	
• Analyse and Strengthen Discipline Health ★	• DESS Floating Systems Phil Snedley formally appointed as ISO Chairman for offshore structures standards
• Work on development and managed moves ★	• DESS: Subsea TRAP 2 Review of the Expro Metre WEPS 100 Subsea Sensor for SH Applications (Shah Deniz Project).
• Develop 10 year road maps ★	• DESS: Subsea Attended Subsea Instrumentation Interface Standardisation (SUIS) Event & IMECHE Reliability Seminar
• Develop/issue The SSFS BP Way <input checked="" type="checkbox"/>	
<b>Process</b>	
• Prioritize, revise, issue selected ETPs ★	• DESS: PC/FA Flow Assurance and Production Chemistry training courses (Houston) completed
• Embed Group/Segment Defined ETPs ★	• DESS: PC/FA Production Chemistry Technology exchange with Baker Hughes completed.
• Improve standardization through Chiefs/SETAs working with CDO ★	• TSW: Subsea Subsea Controls Rep onboard the Constellation II investigating the Hydril BOP Control System Failure
• Create and execute a written communication and engagement plan <input checked="" type="checkbox"/>	• TSW: PC/FA Attended Browse SDR to highlight Flow Assurance risks to sub surface community
<b>Performance</b>	• TSW: PC/FA Completed thermodynamic modelling study in support of the West of Shetland Gas Sweetening Project.
• Maintain early project involvement of Chiefs/SETAs through EDRs/PISSERS ★	• TSW: Arctic Participated in joint industry workshop to define ice studies for NE Greenland
• Work with CDO to improve relationship with EPMS contractors and key suppliers in support of standardization, CI, and career development opportunities.	• TSW: Metocean BP is joining the "DOMOS" hindcast JIP for wind and wave data offshore Brazil
• Reduce production losses through improved incident, upset recovery and personnel ★	• TSW: Risers Egypt HP drilling riser fatigue testing of tension joint load shoulders complete
• Develop execution plans and deliver CI projects: Relief Systems & Quality HAZOPs ★	• TSW: Risers Participated in Discoverer Luanda drilling riser connector galling root cause analysis
	• TECH: Risers Final SCR soil interaction fatigue test carried out at C-Core successfully
	• SETA: Metocean organised and participated in a week of OCP and JIP meetings on metocean issues, held in <del>London</del>
<b>Learning</b>	<b>Look Ahead</b>
• Identify selected opportunities and develop Distance Learning offers to provide increased access to learning offers to engineers worldwide. ★	• SETA: Risers: Represented BP at Well Integrity & Clad Pipe JIP meetings.
• Continuing to build Network of communications in support of business delivery. <input checked="" type="checkbox"/>	• DESS: Floating Systems Growth in our Kataria Raintour gained an ISc with Honours from Delft University and confirmed that she will join BP Challenge (EPT S&FS) in January 2011.
	• DESS: Subsea Chair Nexan TRAP 2 for Devenick Project: Attend DEH Technical Seminar: Attend DuV HIPPS JIP meeting
	• TSW: Arctic: Provision of development concept and cost information to AXA to support review of arctic commerciality.
	• TSW: Subsea Supporting Devenick and Kinnoull Projects – Control System/Umbilical design
	• TSW: Risers: Continued riser support to Egypt, Libya, Angola, North Sea and Azerbaijan
	• TSW: FA/TC Rollout of Scale Management Strategy to ADCO
	• TECH: FA/TC Hydrate Inhibitor Workshop 16/17th November
	• TECH: Risers: Close out of 2010 Technology programme and refresh 2011 plan
	• SETAs: Shah Deniz Phase 2 and BP technology support, TSW technical service work, CI – continuous Improvement
	• SETAs: Shah Deniz Phase 2 and BP technology support, TSW technical service work, CI – continuous Improvement

## Annual Individual Performance Assessment

Name: Paul Tooms	Line Manager: Gordon Birrell		
Job title: VP Engineering E&P	Level/Band: D	SPU/Function: EPT	
Employee number: 139343	New joiner: N	Period reviewed: 2010	

### Delivery against objectives

1.

Deliver against Engineering Performance Contract as attached.

#### Year end assessment

Despite the dominance of the MC252 response, a lot has still been achieved in Engineering this year. Score card demonstrates activities, successes and items that could not be achieved. Some notable efforts are highlighted below.

2.

Engineering Capability. Analyse and improve discipline health, work with DOC to manage critical moves, Develop the Discipline Excellence plans (formerly known as 10yr development plans)

#### Year end assessment

Engineering capability has not improved through the year. However, our understanding of the shortages is much clearer and efforts are underway to recruit aggressively. The Discipline Excellence plans have progressed well - the first Cadre of Subsea ADP's have almost completed their initial curriculum

Through the continued efforts of Bill Hewitt and the support of the Chief Engineers, the Manchester Engineering programme is flourishing..

3.

Support the recovery efforts on the MC 252 incident

#### Year end assessment

An enormous amount of personal effort was spent on this from April 20 through September and into October. I still have some responsibilities for Flow Evaluation.

4.

Build Discipline Excellence

#### Year end assessment

A number of efforts are delivering in this area. Apart from the Discipline Health noted above, there has been great progress in developing QMS for EPT – Document Control, Document Quality Management, Training Offers, ETP refresh and additions, CI Projects in all disciplines etc.

### Behaviours in support of delivery

Draw on the attributes of the Leadership Framework, Code of Conduct and other applicable Group Standards in assessing behaviour.

Review the key behavioural attributes (± two) which strongly contributed to this delivery and how these might be used to further enhance performance:

#### Year end assessment

I believe I fit the attributes described in the Leadership model well. I value expertise and foster true diversity in my teams. I am recognised for building and energizing high performing teams. I will always speak out (perhaps sometimes to my detriment) and do the right thing. I find myself very much aligned with the leadership model in how this should be achieved.

*This form expands automatically when used in Microsoft Word. You are not limited by the size of the boxes.*

This year has broadly been split into 3 parts,

- a) Reorganisation for Sector Leadership,
- b) MC252 Recovery
- c) Reorganisation post Macondo

For the reorganisation at the start of the year, I felt that I put in a deal of effort and that we were just about to get the new organisation embedded when the Horizon disaster struck. Indeed we had just laid out the Biases for Engineering which would have enabled us to build a much stronger discipline, more focussed on understanding, rigor and risk management.

For the MC252 incident, this was one of the most challenging parts of my career – at times the most frustrating and also at times the most rewarding. I found myself challenged by the decision making processes both in BP and the US Administration and ultimately had to use guile and political skill to the full in order to enable the well to be capped, shut in and permanently killed. I was supported in this by the world class quality of the engineers in BP (from all disciplines). I have stayed engaged to some extent as leader of the technical flow assessment team.

Despite the incident, I am proud that the Engineering team has continued to deliver on many aspects of the performance contract and we have made good progress throughout the year – this is due in no small part to the leadership of the John Leitch and the Chief Engineers. We have addressed significant risks in several disciplines and SPU's, and as a result have been a force for good overall.

We end the year in another re-organisation conundrum which is necessary and inevitable, but it does distract from pursuing and assisting the SPU's to manage and reduce risks. Despite this we are still making progress in a number of SPU's and will hopefully have the organisation structure settled shortly so that we can enter 2011 on a firm footing.

Review the key behavioural attributes ( $\pm$  two) that, had they been stronger, would have resulted in a higher level of delivery; discuss actions needed to develop these attributes:

Year end assessment

**Where behaviour has had an impact on performance, what is the action plan to address any issues?**

**Overall performance**

**Line manager**

Year end assessment

*This form expands automatically when used in Microsoft Word. You are not limited by the size of the boxes.*

**Annual individual performance rating [BE, ME, EE, E]**

Record the individual performance rating once calibrated and finalised.  
At a minimum, compliance with the Code of Conduct, Leadership Framework (for FLLs and above) and other applicable Group Standards is required to be rated at ME or above.

**Dates:**

**Objectives set: Feb 20th**

**Mid-year conversation:**

**Year-end assessment: Nov 22, 2010**

**E-Signature** ..... **E-Signature**.....  
(Individual) (Line manager)

Once you have completed the form please save a copy to your computer, and at the end of the year:  
**UK** – Your Line Manager should email this form to the myHR Service Centre, Glasgow at [hrsupport.eur@exult.net](mailto:hrsupport.eur@exult.net), copying you on the email. This form will then be recorded as complete on PeopleSoft (the HR system of record)  
**US** – Contact your HR Manager to confirm where the form should be directed  
**MOW** – Refer to your Line Manager and / or HR manager to confirm your country specific practice

**Appendix A - Development**

**Use this space to record in-year development plans and actions to support the achievement of the objectives listed above**

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**Note:** Where applicable the PDP form should be used to record development plans and career aspirations for the future. The PDP form can be downloaded from:  
[http://onehr.bpweb.bp.com/CYP/en/onehr\\_learning\\_global\\_Personal\\_development\\_planning.aspx](http://onehr.bpweb.bp.com/CYP/en/onehr_learning_global_Personal_development_planning.aspx)

*This form expands automatically when used in Microsoft Word. You are not limited by the size of the boxes.*