Safety Indicators: Where do we go from here?

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WHAT WILL I COVER?

Background – Where are we now?

What’s going on in industry?

Where do we need to get to?

NO SHORTAGE OF GOOD IDEAS?

We have done the theoretical work – we know this stuff!

+ “Balanced Scorecard” 1997
+ UK HSE 2006
+ CCPS 2008
+ Energy Institute 2010
+ OGP 2011 – Only specific Upstream guidance
OGP : Process Safety – Recommended Practice KPIs (Report 456) 2011

The only specific upstream guidance on KPIs from an international body

Closely follows content of API 754

3 main Issues:
+ Language and concepts
+ Loss of Containment Focus
+ Upstream Major Incidents

OGP 2011 Report 456
Consequences of API heritage:

+ Language and concepts
  • Loss of Primary Containment
  • Pressure Relief Devices
  • Does this language resonate with drilling industry?
+ Upstream Major Incidents not losses of containment
  • Alexander Kielland
  • Ocean Ranger
  • Kolskaya and others
Conclusions on OGP 456

+ Commend OGP for the effort
+ But it is only a small incremental improvement on API 754
+ Too focussed on a narrow range of consequences – eg loss of containment
+ Does not resonate with Drilling
+ Insufficient focus on other types of Major Incidents

More work needs to be done!

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Abandoning the West Atlas Jack Up over the Montara WHP

Montara Blowout

+ Cemented casing shoe not tested
+ No Blow Out Preventer (BOP) in place
+ Mud replaced by (underbalanced) Seawater
+ **INADEQUATE MANAGEMENT OVERSIGHT**
Montara Action Plan: “Ensure senior managers have oversight over major accident risks”

+ Essential barriers or controls to major accident events (MAEs) identified with workforce.
+ MAEs chosen:
  - Unignited Blowout
  - Loss of stability
  - Toxic Gas release
  - Large scale fire
  - Unsafe helicopter operating environment

+ Process similar to HSE 2006/Scottish Power
+ Identify and specify the barriers (with workforce) – record using bowties
+ Identify checks for each barrier and accountabilities
+ Carry out the checks on “health” of barriers
PTTEP Australasia
Line of Sight (LoS) Tool
Unignited Blowout

+ 12 barriers for the Unignited Blowout MAE egs:
  • Mud weight and properties as per drilling program
  • Tripping speed verified as per Well Control Manual (WCM)
  • Excess barite and cement on board
  • Diverter and associated valves function tested in accordance with WCM
  • Well barrier verification sheets completed and signed off as per Well Manual

PTTEP Australasia
Line of Sight (LoS) Tool - 3

+ Currently in use (2 different rig owners – one jack up and one semi)
+ Provides details on health of barriers to all levels of management
+ Status of barriers recorded and reported via IT system and displayed on managers screens
+ Company drilling supervisors and rig owners report no significant additional burden
+ Much greater transparency on “process safety”
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What do we need to do?

1. Recognise that OGP RP 456 is not sufficient
   • Too loss of containment focussed
   • Doesn’t work well for drilling sector
   • Misses out other major accident event types
2. Revisit OGP Report 456
3. Implement the recommendation on data from the recent National Academy of Sciences report (with all relevant stakeholders including the workforce).
The End
But the start of a new era for offshore indicators?