THINK PROCESS SAFETY IN SHELL WELLS

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Rob Tinkhof has over 26 years experience in Well Engineering roles around the world, including Netherlands, UK, Syria, Iran, Egypt, Russia and Iraq. Rob currently is General Manager Majnoon Wells Operations, where he has completed the first phase of the Majnoon development project in Top Quartile with more than 5 mln manhours LTI-free. He and his team were awarded the 2013 Shell Performance Excellence Award. Rob will move to Russia again to become the Well Engineering Manager for the Salym and Bershenov fields.
Major Accidents are the scenario which the regulator devotes the largest portion of its time and resources to preventing – and the one it fears the most.

That is the way all players in the petroleum industry must think.

From *Safety Status & Signals 2012-2013*, Petroleum Safety Authority, Norway

Four defined hazard and accident conditions account for roughly 80% of the overall major accident risks:

- oil & gas leaks
- serious well incidents
- ships on collision course
- damage to support structures and maritime systems

(Source same as above)
WELLS PROCESS SAFETY IS ABOUT KEEPING THE HYDROCARBONS IN THE PIPE, THE WELL OR THE RESERVOIR
Process Safety incidents are distinctive from other incidents as they may have catastrophic potential.
WHY DOES PROCESS SAFETY MATTER?

- Lives can be lost
- Environmental damage
- Licence to operate impacted
- Prosecution & fines
- Reputation loss
- Regulatory changes
- Job losses
Deep-water safety defect threatens global offshore drilling

Test failure led to Timor oil spill disaster

Andrea Hayward | AAP | March 15, 2010 2:28PM | 6 comments

China: Gas blow-out created 25-sq-km death zone

Helping Workers Injured in Drilling Rig Accidents and

North Sea oil industry could face huge impact from gas blow-out, economic experts warn

Report: China gas well blowout, toxic fumes kill at least 191

FAILURE to test a cement casing at an oil well

BP hit by new $34bn Deepwater Horizon claim

Latest demand comes from local and southern state governments, including Louisiana and Mississippi, hit hard by pollution following explosion and spill in April

Repsol Crews Battling Offshore drilling regulations

pre avoider safety rules

Shell Bay Marchand 1970 Well Blowout in Gulf of Mexico

Jul 27th, 2010 by John Donovan.
Shell launched ‘Think Process Safety’ to help prevent the incidents and unsafe conditions that could lead to major events.
WHAT IS SHELL’S THINK PROCESS SAFETY?

‘THINK PROCESS SAFETY’ WILL DRIVE THE ACTIONS WE NEED TO MAINTAIN CONTROL OF OUR WELLS

Think Process Safety will enable:

- Engagement at every level in Shell Wells operations: from senior leaders to front line workers, everyone will hear about Think Process Safety in simple, clear language.
- Day-to-day action: Think Process Safety guidance is practical and direct and, over time, will be embedded in everyone’s way of working.
THINK PROCESS SAFETY: THE TEN ELEMENTS

BARRIERS
Know your physical well barriers and confirm they are tested.

LOST BARRIER
If a barrier is lost, immediately stop and fix it.

SUBSURFACE UNCERTAINTIES
Know and communicate subsurface uncertainties.

WELL CONTROL EQUIPMENT
Know your well control equipment and confirm it’s certified and tested.

STANDARDS & PROCEDURES
Follow standards and procedures or get approval to deviate.

THES TEN COVER REQUIREMENTS CRITICAL TO WELLS PROCESS SAFETY

TRAINED PEOPLE
Confirm all people are trained and competent for the task.

RISK ASSESS
Perform risk assessments during planning and for changes.

WALK THE LINE
‘Walk the line’ on temporary rig-ups and confirm set-up = layout drawing.

EMERGENCY RESPONSE
Test your emergency responses and conduct regular drills.

REPORT/LEARN
The guidance is tailored for two distinct groups in Shell Wells operations:

- **Leaders** – what actions must leaders and supervisors take to ensure compliance and provide the right working conditions?

- **Front line workers** – what must all operational staff and contractors do to prevent process safety incidents?
THINK PROCESS SAFETY: EVERYONE KNOWS WHAT TO DO

AS A LEADER YOU NEED TO:

- Set the expectation that barriers are defined for every operation in well construction, intervention and abandonment
- Review the status of barriers during site walk-arounds
- Be prepared to ask probing questions about barriers – and challenge any hesitant answers

AT THE FRONT LINE YOU NEED TO:

- Know who is responsible for maintaining a wells barrier – is it you?
- When an operation changes, always reconfirm the barriers
- Discuss all changes in the status of barriers with your supervisor
HOW CAN CONTRACTORS SUPPORT THINK PROCESS SAFETY?

- Get Wells Process Safety on your corporate agenda
- Build corporate Process Safety Plan
- Understand the critical barriers your organisation is responsible for
- Report and analyse Process Safety incidents in your business
- Act on weak signals
- Be preoccupied with failure
WE NEED TO BUILD ENERGY AND GET PEOPLE INVOLVED
What’s next for you and your Company?

Any Questions?