Improving Leak Detection in Deepwater Multiphase Systems

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For Shell, oil spills invoke the worst images of our industry. No spill or leak is ever acceptable to us, and the measure of our resilience is how we learn and improve. Any leak reminds us that we can never be complacent when it comes to safety, and that our journey is never complete. We must sustain a sense of chronic unease every day and use what we learn from incidents to improve the safety of our operations. The focus of this presentation is Shell's implementation of improved leak detection for multiphase (Oil and Gas) system which has historically presented a technical challenge to the industry. It discusses:

- A new Conditional Rate of Change (C-RoC) advanced algorithm for early detection of large leaks
- The process requirements (training, escalation, culture) to ensure a simple, reliable and sustainable leak detection capability to minimize consequences for the long term