Off-Site Real-Time Monitoring for Production Operations

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NAS RTM Workshop

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BSEE is interested in establishing minimum requirements for the use of real-time monitoring in its regulations.

- Does your company use real-time monitoring for its offshore operations? If not, why?
  - Yes, but not everywhere
  - Chevron operates 942 well completions and 298 production complexes in the GOM
  - We operate in both shallow and deepwater
If your company does use real-time monitoring, what are the critical operations and specific parameters that your company monitors?

Off-site RTM is driven by business need and is primarily used for:

- Production optimization (Well Reliability Optimization, Reservoir Management, Facility Process Optimization)
- Remote troubleshooting of equipment (rotating equipment monitoring)
- Onshore Operations Specialist (Monitoring and Production Reporting only)

What off-site RTM is not used for:

- Not a safeguard for personal or process safety
- Not continuously monitored onshore
Do you believe there are specific types of wells or operations and parameters (for drilling, completions or workovers, or production operations) that always should be monitored with real-time monitoring?

- No, what we monitor is business driven … typically reliability, optimization or efficiency driven
- In contrast to drilling operations, production operations are relatively steady state in nature
- Our offshore operations are less complex and designed for the specific operations and operating range.
What role could automation and predictive software tools play in real-time monitoring?

- Relative to safe operations, none have been identified.

Condition-based monitoring could be viewed as monitoring the operating condition of critical equipment and using any generated data to predict and proactively intervene when needed. As such, what role could condition-based monitoring play in real-time monitoring? Describe how operating equipment using condition-based monitoring could be tailored and/or used for real-time monitoring

- Conditioned based monitoring (CBM) in our opinion is effectively RTM.
- CBM is an integral part of what we do as it relates to
  - Production Optimization and Remote Diagnostics of Specific Equipment
BSEE would like to use real-time monitoring technologies to accomplish many of its safety and environmental protection responsibilities. Real-time monitoring technologies could be incorporated into BSEE’s existing safety and environmental regulations in order to replace or supplement its on-site inspection program.

- How could BSEE leverage such technologies?
- Which activities could real-time monitoring supplement or replace?
- What opportunities do you see for BSEE to use real-time monitoring to provide timely, functional, and value added inspections?
- What would you recommend that BSEE do in the real-time monitoring area?

  - We see the value proposition in RTM in support of production optimization, efficiency and reliability and currently use the technology as such
  - It is not clear what BSEE wants to accomplish with RTM, therefore it is hard to offer a recommendation on opportunities for BSEE to leverage the technology
  - Relative to making RTM a requirement in the regulations, it is difficult to envision what an effective regulation would look like without better clarity around the objective