

Impact of Oil and Gas pipeline simulators on controller training and regulatory compliance



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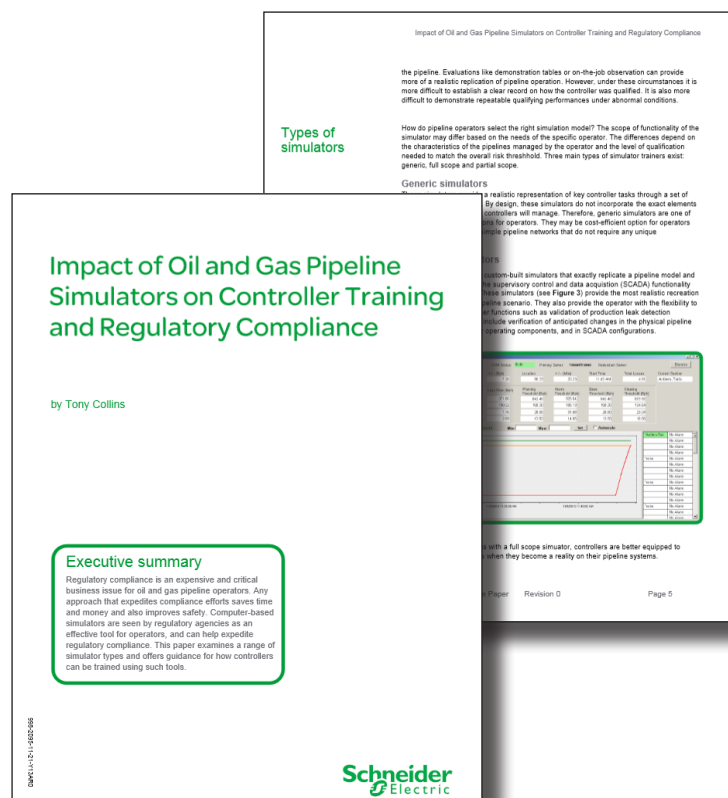
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Regulatory compliance is an expensive and critical business issue for oil and gas pipeline operators. Any approach that expedites compliance efforts saves time and money and also improves safety. Computer-based simulators are seen by regulatory agencies as an effective tool for operators, and can help expedite regulatory compliance. This paper examines a range of simulator types and offers guidance for how controllers can be trained using such tools.

Simulation and Forecasting Technology role Controller training

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Case Study



Impact of Oil and Gas Pipeline Simulators on Controller Training and Regulatory Compliance

by Tony Collins

Executive summary
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Types of simulators

Generic simulators
A realistic representation of key controller tasks through a set of... By design, these simulators do not incorporate the exact elements controllers will manage. Therefore, generic simulators are one of... They may be cost-efficient option for operators... pipeline networks that do not require any unique...

Custom-built simulators
Custom-built simulators that exactly replicate a pipeline model and... supervisory control and data acquisition (SCADA) functionality... These simulators (see Figure 3) provide the most realistic recreation... pipeline scenarios. They also provide the operator with the flexibility to... functions such as validation of production leak detection... include verification of anticipated changes in the physical pipeline... operating components, and in SCADA configurations.

Figure 3
A screenshot of a SCADA interface showing a graph and data tables.

With a full scope simulator, controllers are better equipped to... when they become a reality on their pipeline systems.

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