



**MARY KAY O'CONNOR
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Operator Training Effectiveness with Simulation Based Learning

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In today's business environment, process automation is dramatically changing the way console operators learn and perform. Console operators have more control loops than ever to manage, while processes and control systems are becoming increasingly more complex. There is increased need to train field and console operators to handle abnormal situations to ensure process safety and plant reliability. Staffed largely with mature work forces, with many experienced operators retiring, companies need to ensure that they can continue to operate their plants in a safe, reliable and profitable manner. The features and associated benefits of simulation based learning have been being applied to high risk industries such as aviation, nuclear, medical as well as oil and gas with increasing success. The focus from these industries is driven by a variety of factors such as safety, costs, regulation and advances in simulation technology. This session will present the primary types of simulation based learning methods, benefits for improving safety and emergency response as well as the decision points for when to select simulation as the method of choice. Simulation is a tremendous learning method that enables learners to practice, perform "what if" analysis and maybe most importantly provide the opportunity to learn and grow in a safe, forgiving environment that applies realistic scenarios and exercises.