Better Knowledge of Safe Operating Limits to Improve Human Reliability

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ABSTRACT

In many plants, the process operators are unaware of the design and safety limitations of the plant that they are operating. Generally, they rely solely upon the measurement ranges of the instruments under their control, as well as the alarm trip points associated with those measurements to determine whether the plant is operating within safe limits and environmental constraints. Additionally, some processes have safe operating limits that are dynamic, based upon either measured or inferred values. As these values are constantly changing, providing visualization of this information to the operator in the context of current operations is essential to safe and compliant operations. This paper discusses new technology and methods for improving a plant operator’s awareness of safe operating and environmental limits within a dynamic operating environment.