



13th Chemical Process Safety Sharing, Thailand

Presenter Bio data & Abstract



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Working Experience : 9 years

Presentation Topic : Digitalization for LOC prevention (IOW)

Presentation Abstract:

Integrity Operating window (IOW) – as per API RP584, is process variables (parameters) that can affect the integrity of the equipment if the process operation deviates from the established limits for a predetermined length of time (includes critical, standard, and informational IOW's). PTTGC start to implement Integrity Operating Windows System (IOW) since Y2021 and completed roll out to all plant in PTTGC now.

A critical IOW level, if exceeded, rapid deterioration could occur such that the operator must take immediate predetermined actions to return the process variable back within the normal IOW level to prevent significant risks of potential equipment damage or hazardous fluid release (LOC) that could occur in a short timeframe. Operation team have to monitor and ensure that all IOW level are staying within the limit.

A critical IOW level, if exceeded, it need to be reported and a full incident investigation is therefore follow. Following Incident Investigation, the determination of the Causal factors, root causes including Corrective Actions are developed to prevent future occurrences.

In year of 2023, PI-AF application is starting to implement in PTTGC to assist operation team to monitor all IOW parameter. It can make daily report as dash-board for all value. This application can also send notify email all concern parties (Operation Manager, Process, Incident Investigation team etc) if Critical IOW parameter is exceeding the limit. So, the immediate action, include investigation can be done on time to prevent/minimize LOC.