Abstract

The debottlenecking projects are always challenging since there is a tradeoff between the costs of the project and achieving the new production rate of the plant i.e. achieving the new production rate with optimized cost to make the project feasible. One important step at the beginning of the basic engineering phase of the debottlenecking project is to do adequacy check for the existing instrumentation for the new process conditions of the revamp. If one can imagine a leak from a thermowell for a toxic material, a failure of undersize actuator, not-properly ranged transmitters or valve internal damage for not suitable material, it will be obvious how process safety come to the picture here. Because of un-proper engineering review and overlooked adequacy aspects checks, this may lead to the process safety concern that we are trying to avoid in the plant after debottlenecking took place. In this paper, a proper adequacy engineering check for instrumentation will be discussed from process safety point of view.