Dealing with an Imperfect World

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Abstract

The various standards – IEC 61508, ANSI/IEC 61511 – the ISA technical reports, and numerous books and articles provide a wealth of information about the Safety Lifecycle and requirements for its implementation. However, implementing the lifecycle in the real world can be challenging, especially when different phases of the lifecycle are implemented by different organizations. Acting as a consultant to an owner/operator of a chemical facility one must be careful not to overwhelm the staff of the facility with all the details at once (assuming they have only a minimal background in functional safety). If bringing an existing facility into compliance with the recent standards appears too daunting, the decision to take any action at all can be deferred.

Our experience dealing with a client where there was some knowledge of functional safety but uncertainty resulting from difficulty in turning the recommendations of a previous functional safety consultant into concrete action can be instructive for others in similar situations. We will outline the procedures we followed in guiding the client towards timely implementation of the identified Safety Instrumented Functions and highlight several of the lessons learned. Our experience with a widely used software tool (exSILentia®) will also be discussed, with suggestions for effective use of this tool.