I thought I had the right roadmap for implementing a safety system; help!

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Abstract

International standards IEC 61511 and IEC 61508 provide guidance for the safety system lifecycle phases. Armed with this knowledge, the safety design engineer may feel that he/she can tackle any project. However, the scope of a safety system project can vary considerably. The SIS may be part of a new multibillion dollar process plant, a facility revamp or just involve the addition of a few safety functions to an existing installation. Even though the basic steps may be similar, the execution will vary considerably depending on the overall scope and makeup of the project.

Furthermore, the overall project schedule and resourcing are most often governed by scope other than the safety system. A large project may take four to seven years from conception to startup. Essentially, the safety engineer has to navigate many interfaces in order to formulate a solid SIS design basis (i.e., the safety requirements specification). It is important to understand the complexity that arises from these interfaces since they need careful management.

We need to understand how a project works, what are the critical interfaces for the safety system and when to make timely decisions.