

Truth #4

IEC61511 states that SIS users must show competence in functional safety.

When it comes to Safety Instrumented Systems (SIS) logic solvers, the process industry reached a consensus in specifying that the equipment be third party certified to meet IEC 61508 parts 2 and 3.

Most Process plant require that SIS certification be issued by TÜV, recognizing this lab as the safety systems "Mark," even when safety standards don't mandate certification of SIS equipment by any specific testing lab.

What should be the process industry consensus around the personnel responsible for the design and implementation?

IEC 61508 / IEC 61511 / ANSI 84.01 and other international and national safety standards, as well as national regulatory agencies, require that all personnel involved in any stage of the SIS safety life cycle have proven and documented competency for the tasks they are assigned.

IEC 61511-1, the process industry's Functional Safety Standard for Safety Instrumented Systems, indicates in Paragraph 5.2.2.2 that persons, departments or organizations involved in safety lifecycle activities shall be competent to carry out the activities for which they are accountable.

So, if it is an industry recognized requirement that the SIS hardware and software be certified by TÜV, why not certify the engineers that design, integrate, program, install, operate and maintain the SIS?

There is a trend for new SIS projects to require the engineers involved in specification, programming or maintaining to have a certification of competency.

TUV Rheinland has institutionalized such a program so all engineers involved in any part of the SIS Safety Lifecycle can receive a certification from TUV as Functional Safety Engineers, in some cases employers have rewarded engineers with salary increases after completing the certification program.