



Remote Support - Functional Safety–IEC61511

Safety instrumented systems (SIS) for the process industry sector

IEC 61511-FUNCTIONAL SAFETY

IEC 61511 is a technical standard which sets out requirements for the specification, design, installation, operation and maintenance of Safety Instrumented Systems (SIS), so that it can be confidently entrusted to achieve or maintain a safe state of the process.

PROCESS INDUSTRY SECTOR

- Refineries
- Petrochemical
- Specialty Chemical
- Pharmaceutical
- Power Plant
- Tank Storage
- Water Treatment
- FPSO

3 KEYS -WORDS: SIS, SIF & SIL

SIS: Safety Instrumented System

- Hardware and software systems for safety functions
- Reduce risks through SIFs
- Each SIS has one or multiple SIF loops

SIF: Safety Instrumented Function

- Made up of subsystems/components;
- Each SIF designed to achieve a required SIL

SIL: Safety Integrity Level

- Discrete Level (1, 2, 3, 4);
- Allocated to each SIF for specifying the safety integrity requirements to be achieved by SIS;
- NOT a property of a system, sub-system, element or component.

NORMATIVE REQUIREMENT

- Functional Safety Management (FSM)
- Functional Safety Assessment (FSA)
- Competency Management
- Proof Testing
- Safety Lifecycle Management
- Documentation

REMOTE SUPPORT due to COVID-19

- Gap Analysis: Management of Functional Safety
- Training: Safety Instrumented Systems
- Auditing: Functional Safety Management System
- Verification: SIL Verification
- Assessment: Functional Safety Assessment

WHY TÜV RHEINLAND

TÜV Rheinland is a well-recognised certification body for the Functional Safety Products, Functional Safety Applications and Functional Safety Management System. In addition, TÜV Rheinland Functional Safety Training Program is the only worldwide extended vocational training program in the area of Functional Safety where knowledge and competencies are approved of by a third neutral party and where certificates are issued.

As for process industries, our functional safety service covers all safety lifecycle phases based on IEC 61511:2016 and IEC 61508:2010.

CONTACT

Jeremy Gan
Business Development Executive
Industrial Services
jeremy.gan@tuv.com
Tel: +65 67990338

TÜV Rheinland Singapore Pte. Ltd.

Tel: +65 6799 0300

info@sin.tuv.com

www.tuv.com

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