



“Exceptional value and sustainable outcomes”

“Trust, Reliability, Flexibility”

FUNCTIONAL SAFETY MANAGEMENT



FUNCTIONAL SAFETY MANAGEMENT

Allara Energy is a provider of services specialising in the assessment, specification, design, and delivery of functional safety systems for various industries and processes.

Allara offers the following Functional Safety capabilities:

- Functional Safety Lifecycle Methodology
- HAZOP (Hazard & Operability Study) and HAZAN (Hazard Analysis Study)
- Functional Safety Management Systems
- SIL Assignment and SIL Assessment
- Safety Requirement Specifications (SRS)
- Safety Instrumented System Design, Configuration, Verification, Commissioning and Maintenance
- Functional Safety Assessments and Verification

INTERNATIONALLY RECOGNISED COMPETENCIES

Allara engineers and designers hold internationally recognised Functional Safety Engineering certification covering functional safety design and engineering, verification, validation and documentation in accordance with the standards AS IEC 61508 and AS IEC 61511.

FUNCTIONAL SAFETY LIFECYCLE METHODOLOGY

Allara can undertake the following phases of the functional safety lifecycle;

- Hazard identification and risk assessment
- Allocation of safety functions and protective layers
- Safety requirements specifications for the safety instrumented system
- Design and engineering of safety instrumented systems
- Installation, commissioning and validation
- Operation and maintenance
- Modification
- Decommissioning
- Verification
- Management of functional safety and functional safety assessment and auditing
- Functional safety lifecycle structure and planning

HAZOP AND HAZAN STUDIES

Allara uses HAZOP and HAZAN studies to determine;

- Hazards and hazardous events of the process and associated equipment
- Sequence of events that lead to hazardous events
- The process risks associated with hazardous events
- Risk reduction requirements
- The safety functions necessary to achieve the required risk reduction

FUNCTIONAL SAFETY MANAGEMENT SYSTEMS

Allara engineers are able to develop policy and strategy for the development of a safety management system capable of ensuring that where safety instrumented system are used, they have the ability to place and/or maintain the plant or process in a safe state.

SAFETY INTEGRITY LEVEL (SIL) ASSIGNMENT AND ASSESSMENT

Allara engineers understand the relationship of risk to the safety integrity level and the determination of acceptable risk levels. These are considered by way of the hardware safety integrity and systematic safety integrity.

SAFETY INSTRUMENTED SYSTEM (SIS)

Allara engineers can provide consultancy services for the specification and design of safety instrumented systems required to achieve, and maintain, a safe state of process operation within the tolerable risk requirements.

SAFETY REQUIREMENT SPECIFICATIONS (SRS)

Allara engineers are able to develop safety requirement specifications to detail the requirements of a safety instrumented system. These specifications are based on the requirements outlined in IEC 61511.

FUNCTIONAL SAFETY ASSESSMENT

As an independent organisation, Allara engineers can provide consultancy services to investigate and arrive at a judgment on the functional safety achieved by an existing or proposed safety instrumented system.

VERIFICATION

Allara engineers are able to provide verification services to review, analyse and/or test that the safety system outputs satisfy the defined requirements for the appropriate phases of the safety life cycle.

