

Design, Installation and Commissioning

We have a team of onsite designers able to design not only the Safety Instrumented System but also any further system changes necessary and provide a detailed equipment specification. As an established EPC we also have the experience to carry out all procurement activities as well as all device installation and system integration activities, and commissioning of these with in-house developed procedures.

Verification

We can provide independent, competent assessors with a robust plan in place to verify each lifecycle phase, helping to remove as many systematic failures from the SIS as possible.

Functional Safety Assessments

Functional Safety Assessments must be carried out at various points of the Functional Safety lifecycle, with the expectation that they continue to be carried out for the duration of the SIS operational period; in line with current HSE guidance, we recommend carrying out an FSA 4 every 5 years as a minimum unless there are significant operational changes. Katoni are experienced in providing Functional Safety Assessments at Stages 1, 2, 3, 4 and 5. We can provide fully independent and competent assessments, with detailed outputs providing robust justification of the continued suitability of your systems and expert recommendations for any proposed remediations. We can design these assessments to include your Functional Safety procedures, therefore minimising your audit burden.

Functional Safety Audits

A worthwhile audit requires a well trained and experienced auditor, able to effectively examine your procedures to review compliance with benchmark standards and compliance with the procedures themselves. Katoni utilises the expertise and guidance of previous HSE inspectors specifically trained to carry out this type of gap analysis, ensuring its robustness.

Contact Us

For more information about our Functional Safety services, please don't hesitate to get in touch with our Head of Department, debbi.blackwood@katoni.com. We would be happy to discuss your specific needs and provide customised solutions to help you achieve your goals.

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Functional Safety

Katoni can support your full Functional Safety lifecycle needs, from simple project modifications to whole asset revalidation reviews and new build developments. Our talented and experienced multidisciplinary team can provide you with expert advice and guidance to ensure your systems are designed to operate as safely as possible.

Process Hazard Analysis and Risk Assessment

We provide experienced HAZID and HAZOP chairpersons, with the support of our independent multidisciplinary team. We use sophisticated techniques to address gaps in process safety. We can carry out Process Safety calculations (including gas blowby, process safety time, release volume, PSV sizing and pump/compressor calculations) and review existing PHA data to ensure continued suitability. We verify that all PHA data is consistent and validate where inconsistencies are found. Our detailed records of design intent and hazard detail ensure you have a strong basis for further SIL Determination activities.

IL Determination

SIFs are accurately defined with correct design intent and then subject to a screening tool, setting target integrity levels and identifying SIFs that require a more detailed IL determination assessment. We have extensive experience in qualitative, semi-qualitative and quantitative methods. Our independent expertise can facilitate LOPA workshops, providing a detailed report as output, and carry out Fault Tree analysis.

Safety Requirements Specification

A well-defined, up to date, SRS is one of the most important factors in ensuring your Functional Safety efforts are successful. We can build a new suite of Safety Requirements Specifications or validate existing ones, using our expertise to quickly and efficiently close any gaps found. We provide ongoing support to ensure changes to the SRS do not become a cumbersome process. Our SRS management is intelligent, comprehensive, and importantly – live.

Functional Safety Management

Katoni can provide controlled records that are actively managed by way of our data tool which identifies PHA data, IL determination data, SRS, verification calculations and additional notes – all per SIF. We can provide a detailed Functional Safety Management Plan, as well as all supporting documents, policies, and procedures – including SIL & IPL Registers and Proof Test Procedures. Our Regulatory expertise ensures that these policies and procedures are always compliant with the expectations of the legislation and benchmark standards.