

# SAFETY ENGINEERING & DESIGN SERVICES

WORKING WITH YOU TO DELIVER A SAFE & COMPLIANT PLANT

Bilfinger UK have decades worth of experience in design, implementation, commissioning and maintenance of safety instrumented systems. With our extensive knowledge of designing and implementing these systems, we can help you comply with functional safety best practice and keep your systems free from unacceptable risk.

## Functional safety management

Functional safety management defines all technical and management activities during the life cycle of a SIS. The life cycle concept ensures that projects are scoped, managed, executed, verified and validated in the correct manner by competent personnel. Almost half of all life cycle failures take place during the project specification stage.

Bilfinger UK can assist at this stage to ensure customer specifications are fit for purpose and will provide a compliant and reliable safety instrumented system. To guarantee compliance with the life cycle concept, we ensure all projects are rigorously PVA'd – Planned, Verified & Assessed.

## Functional safety services

Bilfinger UK's functional safety services apply throughout the entire life cycle and include HAZOP & LOPA studies, hardware & software safety engineering, independent verification, and testing & commissioning of safety systems. All of which are carried out by our TUV certified functional safety professionals.

Our electrical & instrumentation design and installation expertise includes DSEAR hazardous area classification and design and complex trained installation personnel. We provide these services to clients in highly regulated industries within the process industry.

Bilfinger UK's functional safety services have been developed by our TUV certified engineers to adhere to the latest IEC-61508 functional safety standards and the industry specific variants. We can help you at all stages of your functional safety life cycle, from conception and initial design through to implementation and ongoing proof testing.



## Our 4 phase approach

- 1. Assessment** – Capture existing documentation and current understanding/status of plant systems. Baseline against regulatory requirement and relevant legislation.
- 2. Analysis** – Visit site to collate information and determine gaps. Carry out independent objective analysis and review data against any existing functional safety implementations.
- 3. Implementation** – Design and engineering realisation. Stage 2 & 3 of functional safety assessments. Independent validation of designs. Install and commission.
- 4. Maintenance & support** – Ongoing checks/proof testing against PMV schedules. Monitoring and compliance checking of new works or projects including impact assessments.