

# SAFE-C

S A F E T Y I N T E G R I T Y H E A L T H C H E C K

## PRODUCT DESCRIPTION

The demands on safety critical systems are different from those of production systems. Production concentrates on availability and potential to produce, whereas safety looks at reliability and whether a system can carry out its function on demand. It is therefore necessary to look at safety critical systems separately. The analysis performed by Latent Ltd culminates in a comparison between the reliability achieved based on testing and the safety case targets. Areas where target are not met are highlighted in red those pieces of equipment which exceed the target are highlighted in green, hence the analogy of the traffic light.

The Safe-C package focuses on safety critical equipment. Safe-C provides a means of optimising CAPEX/OPEX for safety critical systems in the design review stage, whilst ensuring that Reliability targets are still achieved. Safe-C works in much the same way as Profi-C, by creating a Benchmark for the equipment and systems.

This feature allows the design of the Integrity Systems to be aligned interactively with the performance. Options for technology, configuration and maintenance test can be tried against a quantified effect on risk. This prevents over-provision as much as it confirms achievements.

Description	Test Interval (Months)	Reliability on Demand	Safety Case Target	Test Interval to Meet Target
Methane Gas Detector	8	99.363%	99.500%	6.3
Flame Detector	12	93.313%	90.000%	17.9

## INPUTS

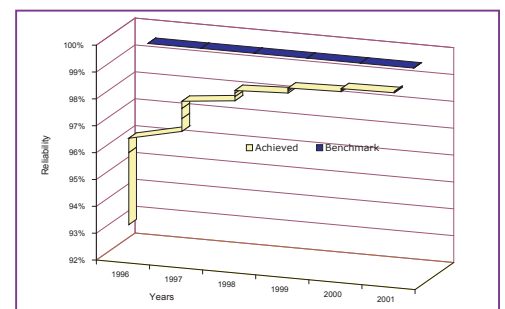
- Safety Critical Systems
- Tags of Safety Critical Items
- Target Reliabilities per Tag (Safety Case)
- Safety Integrity Level (SIL)
- Cause and Effect Diagram

## OUTPUTS

- An integrated management system allowing continuous performance monitoring of safety and environment while maintaining reliability.
- Populated Integrity Management Model
- Optimised maintenance test interval, ensuring the attainment of reliability targets.
- A demonstrable audit trail for maintenance strategy optimisation

## BENEFITS OF SAFE-C

The benefit is a comprehensive way of managing the safety critical system performance. This matrix has been demonstrated to the HSE (Health and Safety Executive) and NPD (Norwegian Petroleum Directorate) has received favourable comments. It is considered by them to be one of the most structured approaches they have ever seen outside one example in the nuclear industry.



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