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# What is “Functional Safety Management” ?

*This document gives a brief overview of what  
Functional Safety Management includes*

**SAFETY INSTRUMENTED SYSTEMS  
are too important to leave to chance!**

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# Why do I need Functional Safety Management ?

Let's consider a few basic facts ...



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# Important and surprising fact number 1

If the SIL assessment says you need a SIL 1 safety loop then that means that without that one safety loop the actual risk of fatality\* is more than 10 times the wrong side of what is tolerable.

A SIL 2 loop means that without that one loop the actual risk of a fatal accident is more than 100 times the wrong side of your tolerable target

A SIL 3 ... actual risk is more than 1000 times the wrong side of tolerable without that safety loop being fully functional

A SIL 4 ... *it exists under the standard but does your company really want to admit that without that one safety loop you have a risk that large?*

\*That is if the SIL loop has been provided for protection of people.  
The SIL loop may have been provided for environmental or asset protection.



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Your safety ...

Everyone's safety ....

... depends on that one safety loop  
functioning correctly

... That's why you need:

**Functional Safety Management**



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# Important & surprising fact:

The IEC61508 group of standards require that you have in place “Functional Safety Management”

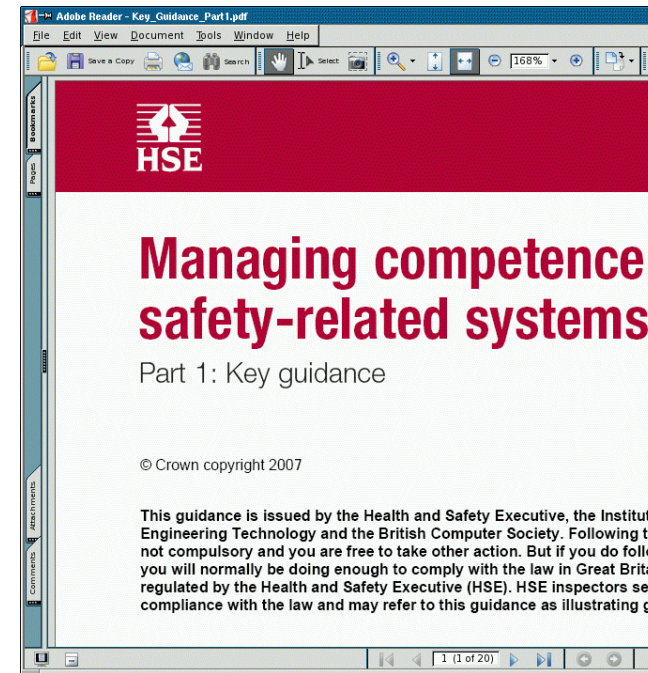
Safety is depending on that one SIL rated loop so **EVERYONE** involved has to be competent – *including your maintenance team*

... IEC61508 Part 1 Clause 6

... matching requirements appear in the sector specific guidance standards (For example: IEC61511 Part 1 Clause 5)

... Regulators are requiring that safety management is properly covered (See the HSE guidance - “Managing Competence for Safety Related Systems” July 2007)  
<http://www.hse.gov.uk/consult/condocs/competence.htm>

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# So if I have Functional Safety Management in accordance with the IEC61508 group of standards ... what will that show?

- 1) Your company has a clear safety policy that includes the measures and systems your company uses to achieve functional safety.
- 2) There is a clear organisation structure with clear responsibilities for safety
- 3) Appropriate techniques and measures are in place complete with a conformance plan
- 4) Non-conformances are identified and corrective actions are implemented, recorded and documented



# So if I have Functional Safety Management in accordance with the IEC61508 group of standards ... what will that show?

- 5) The competencies of everyone involved is assessed for their roles, duties and job functions
- 6) If a hazardous incident occurs, or if a near-miss occurs, there is a reporting and assessment system in place (*and records are kept for others in the organisation to learn from*)
- 7) The performance of the safety measures are assessed
- 8) Functional safety is audited



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## So if I have Functional Safety Management in accordance with the IEC61508 group of standards ... what will that show?

- 9) Modifications are assessed, checked and reviewed
- 10) Training and practice for emergency services and others (if this is applicable)
- 11) The implementation of safety plans are monitored and progress is tracked and reviewed
- 12) The whole safety management is subject to regular reviews
- 13) Suppliers and sub-contractors are assessed



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# So if I have Functional Safety Management in accordance with the IEC61508 group of standards ... what will that show?

- 14) Risk evaluation and risk management is undertaken
- 15) Safety planning

Functional Safety Management requirements are found in IEC61508 Part 1 Clause 6

Matching requirements exist in the sector specific guidance standards.

Hence you will find the same in IEC61511 Part 1 Clause 5 for the process industries

– See the Association's cross-reference table for Functional Safety Management.



*If you want to show your Functional Safety Management is up to standard then the CASS method can be used and it is UKAS accredited. The method is also FREE of charge so what you negotiate with the various certification bodies for their cost is up to you !*

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