THE 61508 ASSOCIATION
Guidance in Compliance

Process Safety Management
and
Functional Safety Management *….*
Spot the difference

A few key points for those Directors and Managers responsible for overseeing safety trips

by The 61508 Association

SAFETY INSTRUMENTED SYSTEMS
are too important to leave to chance!

The 61508 Association does not believe in doing the same work twice … just because it appears in more than one standard.

Process safety management is good practice for any company … but it is not mandatory

… by contrast Functional safety management is mandatory under IEC61508 2nd edition onwards.

Important and surprising fact …

THE 61508 ASSOCIATION
Guidance in Compliance

Every process plant, including yours, has safety trips

If any of those safety trips are high reliability or high integrity, then one of the IEC61508 group of standards applies.

Functional safety management ("FSM")

THE 61508 ASSOCIATION
Guidance in Compliance

Sub-standards, such as IEC61511 for the process industries, reference the master standard IEC61508. So one cannot "do" IEC61511 without IEC61508 as well.

FSM appears in the master standard in the normative Part 1 at clause 6

FSM also appears in each of the related standards

(For example FSM appears in IEC61511 for the process industries at Part 1 clause 5)

Many of the Process Safety Management guides are not mandatory so we will use the **Energy Institute** guidance as an example.

… so let's compare them in the following slides:

FSM vs PSM

CASS 32 is the FREE system for Functional Safety Management.

The Energy Institute produced a "High level framework for process safety management"

These are the two schemes used to enable the comparison.

(The CASS Functional Safety Management can be found at http://www.61508.org/?page_id=340)

FSM vs PSM

THE 61508 ASSOCIATION
Guidance in Compliance

	CASS 32 ref:	E.I. Guide ref:
The requirements of the safety management:	Part 3 item 1 Functional safety management	Section 1.2, Scope and application
Policy:	Part 3 item 2 policy	Element 1 item 1.1 to 1.4 inclusive
Organisation and responsibilities:	Part 3 item 3 organisation, structure & responsibilities	Element 1 item 1.5 to 1.15 inclusive
The relevant lifecycle phases to my work:	Part 3 items 4 and 5 Relevant lifecycle phases and relationship with structure & policy	Element 2 all items
Techniques and measures conformance plan:	Part 3 item 6 Techniques & measures	Element 6, 7 and 8, all items
Non-conformance plan:	Part 3 item 7 Non-conformance plan	Element 10, 11 and 12. See particularly 11.7

FSM vs PSM

	CASS 32 ref:	E.I. Guide ref:
Competence assessment:	Part 3 item 8 competence assessment process	Element 3, particularly element 3.2 to 3.5 inclusive.
Procedure for handling hazardous incidents and near misses:	Part 3 item 9 hazardous incident procedure and handling near misses	Element 6, particularly element 6.10 to 6.15 inclusive, and Element 19 all cases.
The lifetime of the safety trip - Operating and Maintenance	Part 3 item 10 Procedure for operating and maintenance analysis	Elements 16 and 17, all cases
Audit	Part 3 item 11 Functional Safety audit process	Element 20 all cases

FSM vs PSM

THE 61508 ASSOCIATION
Guidance in Compliance

	CASS 32 ref:	E.I. Guide ref:
Change management:	Part 3 item 12 modification process for safety systems	Element 8.4 and Element 12 all cases
Maintaining information from sources outside work:	Part 3 item 13 maintaining information on hazards from industry	Not fully covered
Configuration management:	Part 3 item 14 configuration management procedures	Element 13 all cases
Training:	Part 3 item 15 training	Elements 3.9, 3.11, 4.4 and 4.5
Emergency services plans:	Part 3 item 15 emergency services	Element 14
Review of safety management	Part 3 item 16 formal reviews	Element 1.15, and at the end of each element

Conclusion

THE 61508 ASSOCIATION
Guidance in Compliance

Functional Safety Management and Process Safety Management are largely the same.

If you have high-integrity trips then Functional Safety Management is mandatory.

FSM is in all of the standards.

Many of the Process Safety Management guides are not mandatory.

… so comply with FSM and add what is necessary for other safety management schemes.