

Workshop 1

- Question 1 : Package integration in process automation schemes. Example of a turbomachine to be integrated in a plant.
 - How to define the required SIL
 - how to define the adapted solution to be provided by the package seller in accordance with process constraints
 - How to have the best separation between process safety and machine safety

Answer 1

- SIL Safety functions for machines must be estimated prior to specify the package
- An adapted gravity scale must be used

Question 2 :

- What is the best link between SIL classification and IPS (Important for Safety)
 - For SEVESO2 sites, IPS must be proven and their design must be traceable.
 - A reliability study is necessary. Why not using a compliant IEC61508 method ?

Answer 2

- All SIF (Safety Instrumented Functions) classified with SIL must be IPS.
- All preventive functions identified in the risk analysis must be SIL classified using a proven method.
- All instrumented IPS SIL must be evaluated

Question 3

- Skilled and experienced people for safety system design and maintenance

Answer 3

- Different rules apply to inspection people (experience, training, certification...)
- Need training and knowledge of instrumented system.
- A link must be done with HSE (Health Safety Executive U.K.)
- Certification for subcontracting people

Question 4

- How to revamp existing safety systems ?
- Is cost acceptable ?

Answer 4

- SIL requirement must be analyzed
- Then Installed SIL estimation to be done
- At least, using delta between required and installed lead to most stringent points

Question 5

- IEC61508. Lack of application methodology and experience
- Difficulties to treat complex functions (common mode for an actuator used in more than one function by example)
- IEC annexes are very poor and difficult to apply for real projects

Answer 5

- Concrete and proven method to be developed
- Proper separation between analysis (SIL calculation)