



ABS mainly operates in

**OIL & GAS**

**PETROCHEMICAL**

**CHEMICAL**

**PHARMACEUTICAL**

**POWER**

**UTILITY**

ABS cooperates with

- ENGINEERING COMPANY
- INDUSTRIAL SAFETY ANALYSTS
- GOVERNMENT AGENCIES

**ABS**

ABS Safety Automation Engineering  
Via Carducci, 125 - 20099 Sesto San Giovanni (MI) Italy  
Tel. +39.02.22470054 - Fax +39.02.22470002  
[www.abiesse.org](http://www.abiesse.org) - e-mail: [abiesse.milano@abiesse.org](mailto:abiesse.milano@abiesse.org)

**SAFETY  
AUTOMATION  
ENGINEERING**

STUDIO GRAPHIC TODAY - Vimercate - Italy - 10/2007

**ABS**

abiesse



**ABS** is a company based on the experience and the competence acquired in instrumentation, control and automation fields that offers engineering services for process industries to design, implement and operate a Safety Instrument System (SIS) suitable to requirements and complying with safety international standards.

**ABS** determines, thanks to the knowledge of available technologies and familiarity with standards, the **AUTOMATION SOLUTIONS** that satisfy in the best way the **SAFETY** and **RELIABILITY** requirements, enabling customers to protect their own plants and to increase the productive efficiency.



The recent standards **EN/IEC 61508 and 61511** fix the methodologies to quantify the industry risk and to determine the safety instrument system performances to assure, in order to properly protect people, the environment and capital equipment. The uniformity and observance trend to international standards at the worldwide level is increasing; the compliance with these standards is more and more called for by the multinational engineering companies and government agencies.

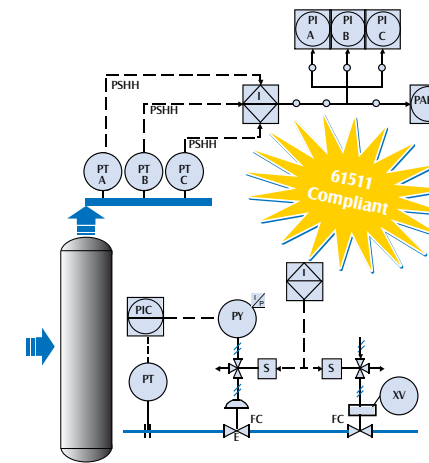
**ABS offers a comprehensive consulting service to support all instrument safety system (SIS) during all phases of lifecycle:**

- Feasibility study
- Specification & Design
- SIL analysis and verification
- Procurement & Operation & Maintenance
- Training

We analyze and compare alternative SIF designs and suggest solutions in accordance with standards to save implementation costs and/or improve the safety of the design as required.

## FEASIBILITY STUDY

We utilize our ability and safety analysis tools with your experience to analyse capital costs of different proposed automation solutions. Furthermore we are interested in existing plants, where using our analysis methodology we find weak points of current instrument safety systems and suggest adjustment in order to satisfy the safety requirements in accordance with the new rules.



## SPECIFICATION & DESIGN

**ABS** helps your engineers to design your safety architecture from sensors to logic solvers to actuators and also facilitates complete system integration with other foreign systems. Starting from concept we develop the Safety Requirement Specification (**SRS**) of every SIF fixing the maintenance strategy with procedures and interval of proof tests. According to safety standards and related architectural constraints we design the SIS, developing hardware and software specifications of all components, detailing the logics and factory/site tests procedures.

### INDEPENDENT VERIFICATION

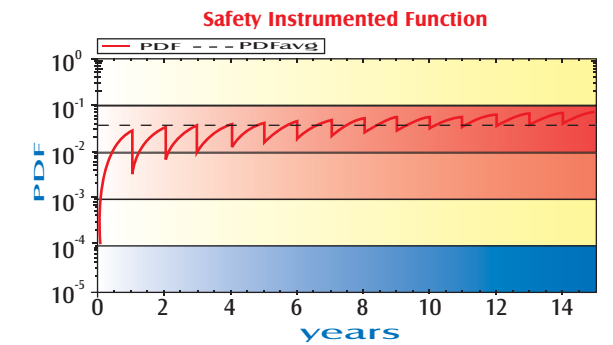
We work as independent of vendor ownership and provide neutral, unbiased advice and guidance to design safety automation system with the effective cost solutions, especially in situations where the risk, complexity and cost of the SIS are high.

### CERTIFIED SOFTWARE ENGINEERING TOOLS

We use in all phases of project certified software safety engineering tools. Applying the included methodology and making use of reliability industry standards data handbook, we select and verify the integrity (SIL) of every instrument safety function(SIF)

## SIL ANALYSIS & VERIFICATION

Each safety loop needs to meet the Safety Integrity Level (**SIL**) requirements. We use certificated safety engineering tools to verify, in reliable way, the **PDF** requirement of each **SIF**, taking into account repair and periodic testing concepts.



## PROCUREMENT & OPERATION & MAINTENANCE

We can offer other safety lifecycle activities: Technical Bid Analysis, Factory and Site Acceptance Test, Start up Assistance. Furthermore we help your technicians and engineers to develop the procedures that are required to operate, maintain and periodically test your **SIS**.

## TRAINING

The international standards now require that all the participants are competent to carry out the activities for which they are accountable. In order to support the acknowledge and correct application of standards we offer a variety of training course that can help technicians and engineers of all levels to update knowledge to the latest standards and state of the art techniques and methodologies available in this field.