

## SAFETY INSTRUMENTED SYSTEMS ANALYSIS (SIS)

The Safety Instrumented Systems "(SIS)," Emergency Stop Systems" (ESD), and "Fire and Gas Detection Systems" (F&GS) are being specified more frequently as layers of protection to potential dangers process. The Oil & Gas companies, refineries, and petrochemical plants have always had in mind the safety of the process, which is why **BFC Consulting** intends to assist our clients in order to meet this objective.

The emergency shutdown system (ESD/SIS) is a system dedicated to maintain the integrity and security of the facilities which consists of sensors, logic systems, and final elements in order to bring the process to a safe state whose predetermined conditions have been violated according to the life cycle referenced in ANSI / ISA S84.01 2004.

## SAFETY INSTRUMENTED SYSTEMS (SIS)

- ❖ Consulting services for security systems projects including policies and procedures.
- ❖ Conceptual design of the SIS/ESD.
- ❖ Application of standards and reference standards.
- ❖ Calculation of Safety Integrity Levels (SIL) for Safety Instrumented Functions (SIF).
- ❖ Calculations of reliability and availability, including validation and verification, Fault Tree Analysis (FTA) Simulation and Software.
- ❖ SIS Design and detail engineering.
- ❖ FAT/OSAT Development of protocols and support.
- ❖ Application software.
- ❖ Specialized technical assistance for implementation of SIS Lifecycle (ANSI / ISA 84.01, IEC 61508 - 61511).

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