

# SIS ENGINEERING

IN COMPLIANCE WITH IEC 61511



## NAPESCO INDIA

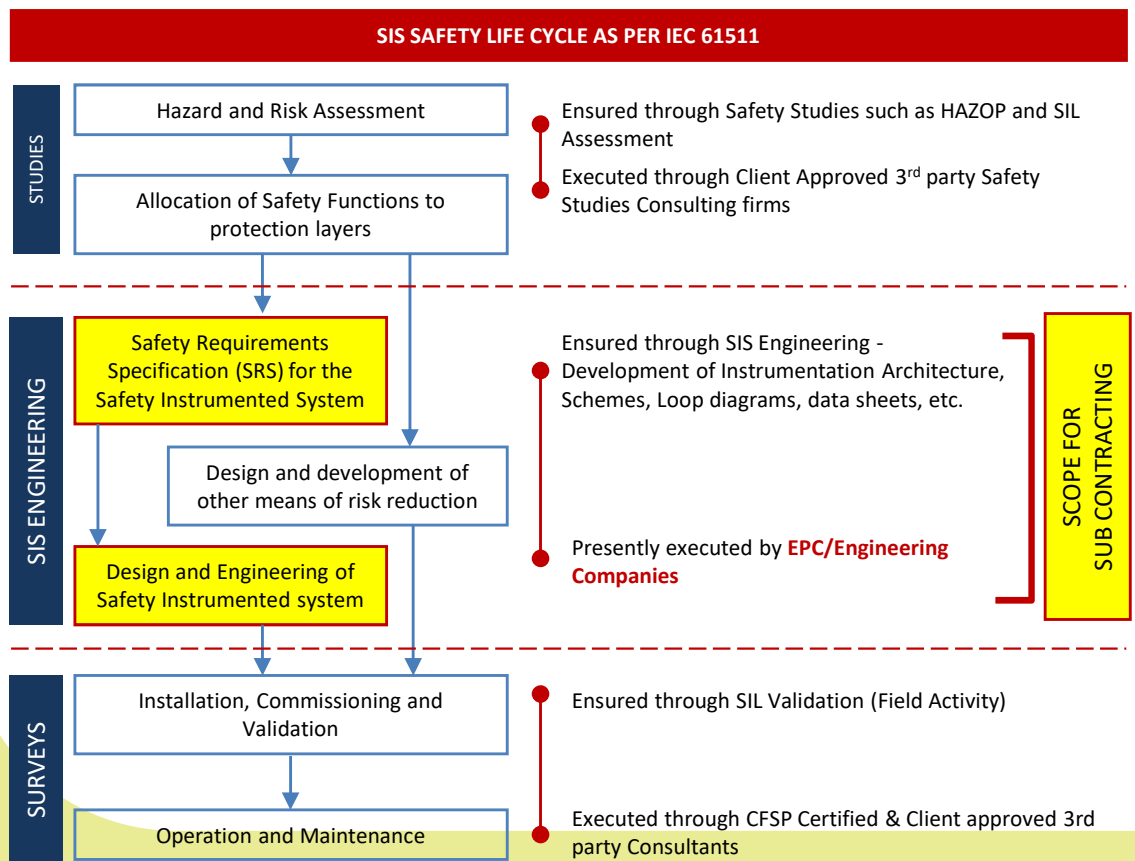
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# SAFETY INSTRUMENTATED SYSTEMS (SIS) ENGINEERING

Design & SIS Engineering is the crucial step in the SIS LIFE CYCLE performed after the Hazard & Risk Assessment activities as per IEC 61511. This needs to be “FIT FOR THE PURPOSE” to be performed by the qualified and certified Functional Safety Expert & Professionals achieving both the Reliability and Plant availability.

## WHAT IS SIS?

Instrumented system used to implement one or more Safety Instrumented Functions for the purpose of mitigating the hazard or bringing the process to a safe state in the event of a process upset. A Safety Instrumented System (SIS) is composed of any combination of Sensor(s), Logic solver(s) and Final Elements(s).



**EPC Companies get benefitted by Outsourcing the Development of SRS and Design Engineering of SIS to the Industry Experts.**

### WHAT IS SIS ENGINEERING?

- SIS Engineering is detailing and developing the Functional and Integrity Requirements of these SIS.

### WHY SIS ENGINEERING?

- Comprehensive Safety Requirement Specification (SRS) is the basis for SIS Engineering.
- SIS Engineering details out the design, architecture, technology, datasheets, etc. as the specification.

- As per UK HSE analysis 44% of Controls System / ESD failures are due to improper specifications. SRS helps to avoid failures during Operations.
- As per industry analysis with respect to Safety Life Cycle, 49% of the SIF design are Over Engineered resulting in High CAPEX, OPEX cost. SRS reduces the unnecessary project cost built-up.

# SIS ENGINEERING

## What We Deliver

- SIF specific Safety Requirement Specification (SRS) in compliance with IEC 61511.
- Selection of the Right Technology and type of Instruments inline with Client's contractual requirements.
- ESD System Architecture and Loop diagrams.
- Datasheets for various Initiators, Logic Solvers and Final Elements.



## Our Capabilities

- Availability of In-house resources of Certified Functional Safety Experts/Professionals, experienced Engineers and Designers.
- Extensive experience in development of Life Cycle activities such as SRS and design Engineering.
- State of the art office setup at Chennai, India.
- Availability of Software Tools.
- Expertise in Functional Safety Consultancy services.
- International Reputation.
- Approved by several Operating and Engineering Companies.



## Why Napesco India

We bring both the sides of coin by providing

**Functional Safety Consultancy Services & Downstream Engineering Services.**

## Benefits for EPC/Operating Companies

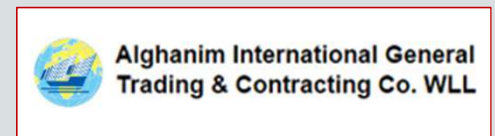
- Designed precisely by Certified Functional Safety Experts.
- Increased confidence in design by complying with IEC 61511 requirements.
- Optimum design avoiding unnecessary Project/Capital/ Operating Cost.
- Mark of Technical Excellence.
- High quality Engineering deliverables. Achieving Project Schedule and avoiding Engineering re-Works.
- Clarity in requirements during procurement & interaction among various Instrumentation Vendors.
- Better insurance underwriting benefits due to certified design.
- Ease of installation and commissioning due to improvised design.
- Ease of Validation before commissioning.
- Meets the SIL Assessment & Verification targets due to "FIT FOR THE PURPOSE" design

# OUR MAJOR CLIENTS

## OPERATING COMPANIES



## ENGINEERING COMPANIES



We will be eager to serve you.  
Send in your Business Enquiries to  
[ceo@napescoindia.com](mailto:ceo@napescoindia.com)  
[info@napescoindia.com](mailto:info@napescoindia.com)



A Subsidiary of  
NAPESCO International, Kuwait

## NAPESCO INDIA

Corporate Office: "Chennai One" IT SEZ, Tower II 1<sup>st</sup> Floor, Special Module, East Wing "A" Pallavaram – Thoraipakkam 200ft Road, Thoraipakkam, Chennai – 600 097. India.

Tel: +044 – 24560145 - 48 | +044 – 49578687

Official Website: [www.napescoindia.com](http://www.napescoindia.com)