



PRO CAHAYA
INDUSTRIES

FUNCTIONAL SAFETY & COMPLIANCE SOLUTIONS

Protect Your People. Secure Your Assets. Ensure Compliance.

In industrial environments, safety is not an option – it's a necessity. Whether operating a chemical plant, refinery, power facility, or manufacturing line, the risks of failure in safety-critical systems can be catastrophic.

At Pro Cahaya Industries (PCI), we provide end-to-end solutions to help organizations implement and maintain Functional Safety in compliance with IEC 61508, IEC 61511, and SIL (Safety Integrity Level) standards. Our solutions integrate seamlessly into your automation systems, providing reliable protection, minimized downtime, and full audit readiness.

WHY FUNCTIONAL SAFETY MATTERS

- Reduces the risk of hazardous events due to process or equipment failure
- Protects people, environment, and critical assets
- Enables traceability and compliance with international safety standards
- Prevents unplanned shutdowns and equipment damage
- Mandatory for certified operations in oil & gas, chemicals, energy, and process industries

INDUSTRIES WE SERVE



Oil & Gas



Chemicals &
Petrochemicals



Power
Generation &
Utilities



Manufacturing &
Industrial Gases



Water &
Wastewater



Food & Beverage
(explosive dust,
thermal risks)

OUR FUNCTIONAL SAFETY CAPABILITIES



Safety System Design & Implementation

- SIL-compliant system architecture
- Safety Instrumented Systems (SIS) design
- Safety Requirement Specification (SRS)
- ESD, Fire & Gas, and Burner Management Systems (BMS)
- Redundancy, fail-safe logic, and fault diagnostics



Safety Validation & Verification

- SIL assessment (SIL 1 to SIL 3)
- Layer of Protection Analysis (LOPA)
- Safety Lifecycle Management per IEC 61511
- Safety Integrity Level (SIL) verification
- Validation testing and commissioning



Control Panel & Hardware Compliance

- Design and build of safety-rated control panels
- Integration of safety PLCs (Siemens, HIMA, Schneider, etc.)
- Intrinsically safe design for hazardous areas (ATEX, IECEx)
- Wiring, fusing, labeling as per SIL-rated specifications



Maintenance, Audit & Training

- Functional testing and inspection
- Safety documentation review and compliance checks
- Operator training on SIL systems and response procedures
- Long-term maintenance and support contracts

PCI'S SAFETY ENGINEERING APPROACH



1. Hazard & Risk Assessment



2. SIL Determination



3. System Design & Hardware Selection



6. Operation, Maintenance & Periodic Review



5. Validation & Documentation



4. Implementation & Testing

WHY CHOOSE PCI?



- ✓ 20+ years in industrial automation and safety
- ✓ In-house certified Functional Safety Engineers
- ✓ Partnerships with leading safety PLC and instrumentation vendors
- ✓ Proven experience in greenfield and brownfield safety upgrades

BENEFITS DELIVERED



Reduced operational risk & liability



Reliable emergency shutdown response



Increased plant uptime and safety performance



Audit-ready documentation for regulators and insurers



Efficient integration with existing automation & SCADA systems

Protect What Matters Most — With Confidence

Let Pro Cahaya Industries help you design, implement, and maintain safety-critical systems that protect your people, assets, and brand.

Schedule your free Functional Safety Audit or SIL Assessment today.



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