# Process Safety Management



# Customized Safety Solutions

Our Team designs and implements safety systems for the process industries. Our Certified Functional Safety Engineers are experienced with IEC 61508/61511, NFPA Standards, ISA 84 and the entire Safety Lifecycle.

We perform hazard and operability studies (HAZOP) and layers of protection analyses (LOPA), participates in design reviews, calculates probability of failure on demand (PFD), performs criticality analyses, and tests on new systems. We help our clients install and maintain "failsafe" control systems for the full Safety Instrumented Function (SIF) logic, actuators, sensors, and other control equipment.

### Process Safety Management Capabilities

Our Process Design Engineers, Electrical and Instrumentation Engineers and Designers, Control System Engineers, and Safety Specialists assist our clients with:

- HAZOP/PHA Studies
- SIF/SIL Selection
- Evaluation of New/Existing Installs
- SIL Calculations
- SIS Design & Implementation
- SIS Programming
- Proof Testing & Validation
- Burner Management Systems (BMS)
- LOPA (Layers of Protection Analysis)
- SRS Documentation
- Instrument & Final Element Selection
- Standard Compliance Evaluations
- Panel Fabrication
- SIS/DCS Integration
- Maintenance & Testing Procedures
- Control System Integration



# Safety Culture

Our Safety Culture protects and promotes the well-being of each person who works with us and each person touched by our work. As retrofit and revamp specialists in the process industries (refining, petrochemicals, chemicals, oil and gas, and manufacturing), the majority of Hargrove's projects are in PSM-covered plants.

#### Certified Teammates

Our Safety Instrumented Systems Specialists and PHA facilitators are TÜV Rheinland FSEng Certified. From program development to mitigation, reporting, and procedure writing, our Team can help ensure your facility meets regulatory requirements and best-in-class safety guidelines.



12 Teammates Certified in Process Safety (TÜV or ISA)



