

Consultancy Services



Introduction

Pan Gulf Industrial Systems (PGI Systems) is a wholly owned subsidiary of Pan Gulf Holdings, a leader in Middle East business for over 30 years and listed in the top 50 Saudi Companies.

PGI Systems specialises in the design, supply, installation and commissioning of 'state-of-the-art' technological solutions and the provision of expert consultancy services.

Affiliations

PGI Systems are affiliated with some of the foremost leaders in global engineering excellence. Our technology partners pride themselves in driving innovative technological advances in the fields of consultancy and services in their respective disciplines.

Through partnerships spanning a broad spectrum of technologies, drawing together our partners' individual attributes to complement our own expertise, PGI Systems is able to provide a 'Total Solution' for both onshore or offshore projects.

IN-DEPTH KNOWLEDGE
EXCEPTIONAL
SOLUTIONS



Smith & Burgess

In partnership with Smith & Burgess, Houston, Texas, PGI Systems provides superior process safety engineering and consulting services for the refining and petrochemical industry in the Middle East.

Founded in 2007, Smith & Burgess has the experienced staff to provide our clients solutions to their relief systems related projects. Our goal is to exceed customer expectations by providing comprehensive solutions to relief system issues and to provide value beyond comparison.

Key areas of expertise include:

- Relief system documentation
- Relief systems concern resolution
- Safety instrumented systems conceptual design
- SAF-11 compliance
- Process safety software (Salus)

We take pride in the proper resolution of relief systems related concerns, generating solutions that meet (or exceed) industry and regulatory safety standards while balancing overall installation and operating costs.



SAF - 11 Specialists

In 2010 the Saudi government issued mandatory regulations known as SAF. SAF-11 applies to all facilities that process, transport or handle combustible, flammable or toxic material. This directive ensures that companies operate safely and will result in penalties for those who are not in compliance.

PGI Systems, alongside Smith & Burgess, offers industry-leading expertise in SAF-11 compliance. Smith & Burgess helped write the basis for SAF-11 as a voting member of the API subcommittee, and have more than 20 years experience in meeting similar requirements worldwide. With our extensive safety system design experience, PGI Systems has the right team to ensure your facility is SAF-11 compliant.

We are highly qualified to assist you in the sizing, selection and installation of pressure relief and venting devices and can conduct a complete analysis and compliance plan for all your SAF-11 requirements.

Specific experience includes:

- SAF-11 4.1 Emergency shutdown (ESD) design
- SAF-11 4.2 Depressurising design
- SAF-11 4.3 LPG storage facility design
- SAF-11 4.4 Emergency isolation valves

UTILISING
STATE-OF-THE-ART
TECHNOLOGY
DELIVERING RESULTS



Salus Software

Comprehensive and robust relief and flare system software is of little value if you have to retrain occasional users each time they use it. Salus offers localised help at the data-entry level and sequential workflows that guide users through the relief systems design process, ensuring sound and accurate documentation, regardless of the operator.

Salus features built-in tools for quick calculations that save time and enforce consistency. The software includes a web-based portal for authorised users, allowing engineers access to published relief documents and on-the-spot information not otherwise available, saving time and money. Salus also stores previous revisions and facilitates updates for an evergreen system.

Salus Maintenance Upgrade and Support will include future enhancements such as a flare integration module and revision control, which allows engineers to create and track multiple versions of the same relief device, providing the flexibility to test and evaluate multiple options. Salus is backed by a dedicated global support team.

Features include:

- Integrated thermodynamics
- PSM documentation
- Pre-loaded and customisable list of over-pressure scenarios
- Built-in calculation for common relief rates
- Low-pressure tank vent analysis & documentation
- Windows access control and authentication
- Scalable data storage



Oracle Risk Consultants

In partnership with Oracle Risk Consultants, Perth, Australia, PGI Systems provides technical safety and risk consultancy services to the offshore, marine and hazardous facilities industries.

Formed in 2001, Oracle Risk Consultants have gained an excellent reputation for providing fit-for-purpose services. Most work is performed for a fixed not-to-exceed cost to an agreed (usually tight) schedule.

Oracle Risk Consultants provide a diverse range of services to the oil and gas industry specialising in risk assessments and the production of safety cases, with additional experience in risk assessment for the mining industry.

Oracle Risk Consultants are established market leaders in the preparation of safety cases and formal safety assessments for all types of facility including fixed platforms, FPSOs, MODUs, construction vessels, Flotels, pipelines and onshore hazardous facilities.

At the conceptual stage, we assist our clients with optimisation of layouts, selection of equipment, maximisation of inherent safety and concept safety evaluations. We then continue to develop the safety case through FEED, detailed design, construction, operations and abandonment. We have also been actively involved with formal safety assessment of actual major accidents.



Our services include:

- Production of vessel safety cases
- Safety cases for process facilities (FPSOs, MODUs)
- Formal safety assessments
- HSE management
- Performance standard
- Risk screening
- HAZIDs
- Quantitative Risk Assessments (QRA)
- Loss prevention
- Structural and marine risk assessments
- Concept selection
- Reliability and availability of safety critical equipment
- Value engineering

Oracle Risk Consultants also perform pre-safety case surveys and gap assessment for older mobile facilities to enable our clients to determine any major modifications that may be required to enable a safety case to be obtained.

Contact Us

For further information about PGI Systems' consultancy services or to arrange a meeting to discuss your requirements, please contact:

consultancy@pgisystems.com.

**PROFESSIONAL &
PROFICIENT
EXPERTISE THAT
COUNTS**



Pan Gulf Industrial Systems,
PO Box 2473,
Al Khobar 31952,
Kingdom of Saudi Arabia.

Tel: +966 (0)3 897 5651
Fax: +966 (0)3 897 5654

consultancy@pgisystems.com
training@pgisystems.com
www.pgisystems.com

In Partnership with:

Smith & Burgess
Process Safety Consulting

Oracle Risk Consultants

