

Structures and pipelines

The Lloyd's Register Group provides a comprehensive range of engineering services throughout the asset life cycle.

OIL AND GAS
SERVICES

Our services provide support to clients in the design, operation and eventual decommissioning of structures and pipelines.

Design appraisal

We provide design appraisal services delivering an independent assessment with particular attention on safety critical items in the context of regulatory and classification requirements.

Integrity assessment

We can assist you with integrity assessment, where the focus is on extending the life in the most cost effective manner of existing assets, whilst maintaining adequate safeguards for human life and the environment.

Structures

The services provided by our specialists include:

- design appraisal, certification and classification of structures of all types (steel, concrete, fixed, floating)
- advice on regulatory issues
- development of reliability based inspection philosophies
- audit of clients' systems and processes
- construction site representation
- development of integrity schemes (in conjunction with integrity services department) for topsides, jackets, crane pedestals, flare stacks, floating units
- modelling of steel, concrete, composite structures
- modelling of fixed, floating and gravity-based structures
- hydrodynamic modelling, motion studies and model test reviews
- assessment of optimum inspection intervals in floating structures using finite element (FE) models
- buckling assessments of structures under hydrostatic loads
- fatigue and fracture assessment of local details
- advanced analytical techniques.



Pipelines

Our services relating to pipelines include:

- design appraisal and certification of new pipelines
- development of risk-based strategies and pipeline integrity management systems for subsea, topsides, landfall and onshore sections
- production of operational and legal documents
- liaison with regulatory bodies
- development and review of procedures
- inspection and operations reporting
- audit of integrity management process and of contractors; plant, equipment and systems
- management and supervision of subsea operations



Pipelines (cont.)

- development of pipeline emergency response schemes and safety management systems
- use of specialist software to enhance the integrity management process
- assessment of anomalies (spans, buckles, etc) using advanced techniques
- rock dump and stabilisation requirements for high temperature pipelines
- stability assessments
- fitness for purpose assessments
- consultancy in high temperature design and advanced analytical techniques.

Summary of business benefits

In choosing the Lloyd's Register Group you are assured of a service which provides:

- practical expertise in all aspects of the strategic and operational management of safety, reliability, business and project risk
- access to multi-disciplinary teams with competence across fixed and floating structure, pipelines, subsea and corrosion engineering, systems integrity and criticality based verification
- cross-fertilisation of best practice across the oil and gas industry, an impartial viewpoint from an organisation with financial, political and technical independence.

www.lr.org

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Register**

LIFE MATTERS