



## PROJECT TECHNICAL ASSURANCE AND DISCIPLINE ENGINEERING

OSL has a wealth of engineering capabilities and is able to carry out technical reviews and provide a technical assurance role.

Disciplines provided include:

**Process Engineering** with particular reference to:

- Gas processing
- Gas compression
- Life of Field studies
- Subsea engineering studies
- Flow, process and pipeline modelling
- Process safety.

**Rotating Equipment** including:

- Specification of gas compressors, both electric motor and gas turbine driven
- Bid review and analysis
- Re-wheeling of gas compressors
- Commissioning of rotating equipment
- Review of maintenance regimes.

**Mechanical Engineering**

We have recently provided advice and design work on:

- layouts, both on and offshore, and undertaken offshore surveys
- selection and design of vessels and pipework in accordance with international, national and client codes.
- maintenance requirements

**Control and Instrumentation**

Reviews can be carried out at the Control Philosophy and detailed levels. Advice on vendor selection can also be provided by OSL.

**Electrical, Structural and Civil**

OSL has a network of partner companies and associates who can and do provide support in other disciplines where we do not carry core competencies.



Some recent examples our work are given below:

We were employed as Client Engineer by a European Gas Company to overview the technical aspects of a £100m Gas Caverns Storage Project.

The scope included:

- Gas Compression and Letdown.
- Gas Turbine/Compressor selection
- Gas Metering
- Dehydration
- Cavern Performance modelling
- Tie-in to National gas network
- HAZOP, HSE Reviews, Risk Assessments
- Cost Estimate Verification

A client initiated a FEED contract with an engineering company on an NGL/LPG Processing, Storage and Export facility. Due to our previous experience and expertise in these areas, OSL were asked by the client to provide Technical Assurance of the contractor's work.

We overviewed and added to:

- The basis of design
  - Process philosophies
  - Layouts studies and hazardous area designations
  - Equipment specification
  - Electrical and control philosophies
  - HAZOP and risk assessments
  - Environmental review
  - Project plan and execution strategies
- ... and we prepared the detailed cost estimate for the project.

