

# Main Focus



## **OGP:** Only one standard is needed

*by Charles Bowen,  
Executive Director of the  
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and Gas Producers*

Over the past two decades, the oil and gas industry, through ISO technical committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, has managed the production of over 120 standards. These standards range from individual component design standards and safety system standards, to standards that describe the basis for the design, fabrication and installation of multi-million dollar offshore installations. Today, the increased knowledge and use of these standards is helping the global oil and gas industry to design safer and more reliable components and structures, while at the same time leading to substantial cost savings.

In order to deliver this portfolio of standards, the industry has invested thousands of work hours of effort. Contractors, academics and regulators have supported technical experts from within the industry in an effort to document worldwide experience on a wide range of topics.

Through a series of workshops held in venues including Rio de Janeiro, Moscow, Beijing and Helsingor (Denmark), the International Association of Oil and Gas Producers (OGP) has attempted to engage regional stakeholders in this process and further promote the adoption of ISO standards. In support of this effort, OGP is continuing to engage with the International Regulators Forum (IRF) with the intent of ensuring that, as far as possible, International Standards are accepted as a means of meeting regulatory requirements.

Every year the OGP standards committee produces and issues its annual *Standards Bulletin*. This provides

# Fuelling productivity and progress

information on the current portfolio of TC 67 specific standards available, and examples of the initiatives and benefits resulting from the adoption of these standards.

However, over the past two decades, industry has experienced a transformation in both the way it manages its business, and the environment within which it operates. Changing business models, new frontiers, new entrants, and an ever-evolving regulatory environment, are all presenting new challenges to the continued efforts needed to provide the oil and gas industry with the International Standards it needs.

### The role of standards in a risk-based, goal-setting environment

Driven by both the internal need to develop globally relevant, cost effective, fit-for-purpose solutions, and by a changing regulatory environment, the industry has embraced the concept of goal-based solutions. Risk assessment and reliability-based design are two of the tools used by organizations to deliver these solutions. However, where within such an environment do highly prescriptive standards feature?

There are many circumstances in which the effort required to identify a risk-based solution, and then design and fabricate 'one-off' components, greatly exceeds the benefits of having

off-the-shelf products and approaches. While the end product of using a standard may not be optimum, it will benefit from having a known performance level and worldwide experience in its design, fabrication and use, and of course the associated cost savings.

However, there are occasions, for example the design of offshore installations, where detailed prescriptive approaches will not provide the flexibility required to deliver the optimum structure. In such circumstances, standards need to be able to provide the engineer with sufficient scope to identify solutions that best fit the local requirements, while at the same time delivering prescriptive provisions where such provisions are appropriate and necessary. Underpinned by the decades of experience that led to their development, they need to provide the foundation for safe, reliable and cost-effective designs.

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## OGP Position on Standards

- The development and use of ISO and IEC International Standards should be promoted;
- Standards should be simple and fit-for-purpose;
- International Standards should be used without modification wherever possible;
- Development of standards should be based on a consensus of need;
- Duplication of effort should be avoided;
- Company specifications should be minimized and written, where possible, as functional requirements;
- Users should be represented on standards work groups.

Standards will continue to have an important role to play within a risk-based, goal-setting environment.

### The challenges ahead...

Much of the ISO standards development work carried out within the framework of TC 67 has focused on equipment and material standards specific to exploration and production activities. In the industry's continuing efforts to improve its health, safety and environmental per-

#### ISO STANDARDS FOR THE OIL AND GAS INDUSTRY

#### Petroleum, petrochemical, and natural gas industries General sector standards

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Content and drafting of a functional specification  
(ISO 13879)

Content and drafting of a technical specification  
(ISO 13880)

Classification and conformity assessment of products, processes and services  
(ISO 13881)

Sector-specific quality management systems – Requirements for product and service supply organizations  
(ISO/TS 29001)

Collection and exchange of reliability and maintenance data for equipment  
(ISO 14224)

Materials for use in H2S-containing environments in oil and gas production

Part 1: General principles for selection of cracking-resistant material (ISO 15156-1)

Part 2: Cracking-resistant carbon and low alloy steels, and the use of cast irons  
(ISO 15156-2)

Part 3: Cracking-resistant CRAs (corrosion-resistant alloys) and other alloys (ISO 15156-3)

Life cycle costing

Part 1: Methodology  
(ISO 15663-1)

Part 2: Guidance on application of methodology and calculation methods  
(ISO 15663-2)

Part 3: Implementation guidelines  
(ISO 15663-3)



## What is OGP?

formance, International Standards have potentially an important role to play in areas that are not traditionally considered as core-business.

**“In order to deliver this portfolio of standards, the industry has invested thousand of work hours of effort.”**

The many hours spent by the technical experts tasked with developing a specific ISO standard is only one stage in its worldwide adoption. As an industry we need to continue to work with all our stakeholders including equipment and material providers, design contractors, regulators, and most importantly our own organizations, to identify, develop and promote standards that, if adopted, can contribute towards improving the industry's performance in all aspects of its activities. In this respect, the adoption of ISO standards within the USA and Europe (via API<sup>1)</sup> and CEN<sup>2)</sup>, and growing interest in the work of TC 67 in Brazil, China, Kazakhstan and Russia, is welcomed.

Exploration and production activities associated with, for example, ultra-deepwater environments and high pressure, high temperature wells, require cutting-edge, frequently bespoke solutions.

### About the author



**Charles Bowen** took over as Executive Director of the International Association of Oil and Gas producers in February 2005, after a thirty-year career with

a major oil company. He spent his early career in development projects, and then moved into production management, HSE (Helsinki School of Economics) and general management. He had several assignments in the Middle East, amounting to some 10 years, and spent 8 years in the North Sea industry.

Since its founding 30 years ago, OGP has grown to include 57 oil and gas companies, industry associations and major service providers. Today, OGP members produce more than half of the world's oil and over a third of its gas.

OGP exists to:

- Represent the interests of the upstream industry before international regulatory and legislative bodies;
- Achieve continuous improvement in safety, health and environmental performance and in the engineering and operation of upstream ventures; and
- Promote awareness of corporate social responsibility issues within the industry and among stakeholders.

OGP has offices in both London and Brussels; for further information visit <http://www.ogp.org.uk/>.

However, supporting these frontier activities are equipment and systems where standardization is the key to delivering safe, reliable and cost-effective solutions. Developing standards within such a varied environment requires the industry to maintain a close working relationship with ISO in order to better match the industry's needs and the ISO process. On occasion we may need to work with ISO to understand how these processes can be improved in order to deliver the products the industry needs.

**“Standards will continue to have an important role to play within a risk-based, goal-setting environment.”**

In the past the industry has supported the regional development of industry best practice documents, company and local standards. This process, on occasion, resulted in regional documents that, for no obvious purpose, provided differing requirements. However,

against the background of reducing in-house technical expertise within oil and gas organizations and changing demographics, the challenge facing the industry is bringing the appropriate expertise to the standards table. The models which supported standards development in the past need to be revisited and new models identified capable of meeting the challenges ahead. A major aspect of any future model is likely to require companies withdrawing some effort in developing regional standards and instead, contributing to the development of international documents.



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Through OGP and other mechanisms, the oil and gas industry will continue to identify and develop a portfolio of ISO standards that will allow it to continue to operate in a safe, environmentally responsible and cost-effective manner. ■

1) American Petroleum Institute

2) European Committee for Standardization