

## EXECUTIVE SUMMARY

A set of International Standards for a wide selection of vital oil & gas industry materials, equipment and offshore structures is emerging from the International Standards Organization, ISO. These standards are primarily the responsibility of ISO Technical Committee 67 (ISO TC67). They are developed using a consensus process that includes more than 1400 oil & gas industry experts from around the globe and an international review and approval process.

138 ISO standards have now been issued, including 18 revisions or new publications in 2008. A further 19 are planned for publication this year. The international oil and gas industry and national standardisation organisations

support these standards for worldwide applications. North and South American, Chinese, European and other standards bodies are now adopting them for regional and national use (see details inside). For industry, they will reduce costs and delivery time, and facilitate trade across national borders. For regulators, they offer support for goal-setting and functional regulations, while achieving higher levels of safety through better design.

These standards are now being implemented widely in oil and gas provinces around the world, replacing existing industry, regional and national standards and eliminating or reducing the need for company-specific specifications. For details on standards available from ISO TC67, see the wall-chart inside.



<http://info.ogp.org.uk/standards/>

aggressively pursuing the publication of several API documents related to hurricane issues in 2006 & 2007, and in consideration of the progressive publication of the ISO 19900 series documents, API SC 2 leadership developed a strategy to restructure the content of its standards to align more closely with the ISO 19900 series. Following the publication of the ISO standards, many regions of the world are expected to adopt them as a basis for offshore platform design. Against this background, API has mapped out a plan to be implemented over the next few years concerning the restructuring sequence, alignment and adoption of the ISO standards as API standards. What was once a Gulf of Mexico only focus has been expanded to other US coastal waters and to co-operative development for global standards under the ISO umbrella.

**ISO TC67**  
goes to Victoria,  
BC, Canada for its  
plenary meeting,  
1-2 October 2009

## INTERNATIONAL STANDARDS WORKSHOPS

The OGP Standards Committee has taken its message promoting 'global standards used locally worldwide' to Australia and Malaysia. The 19-20 February 2009 event in Perth was staged jointly with the Australian Petroleum Production and Exploration Association Ltd (APPEA), the National Offshore Petroleum Safety Authority (NOPSA) and Standards Australia (SA). The 23-24 February event in Kuala Lumpur was arranged jointly with PETRONAS Carigali, Department of Standards Malaysia and SIRIM Berhad.



Datuk Abdullah Karim

During his opening address to the KL workshop, Datuk Abdullah Karim, Vice-President, PETRONAS stated: "Technical standards are crucial to industries such as the oil & gas industry.

They are now well imbedded in almost everything we do; from designing plants to their abandonment. These technical standards have helped us in designing better and more reliable facilities. They help to improve our efficiency and eliminate wastefulness and poor quality work. They have helped most of us to realise better returns for our stakeholders and more importantly, they ensure that our operations are safe. Perhaps it is not an overstatement to say that the industries depend on these technical standards to sustain their profitability and growth."

The two workshop objectives included broadening the understanding of international standardisation activities while introducing

OGP to the Australian and Malaysian oil & gas sector. To that end, presentations covered a range of topics. Among them were the development and use of international standards, an overview of the local Standards Development Organisations work, the ways in which Australian and Malaysian standards fit into international standards.

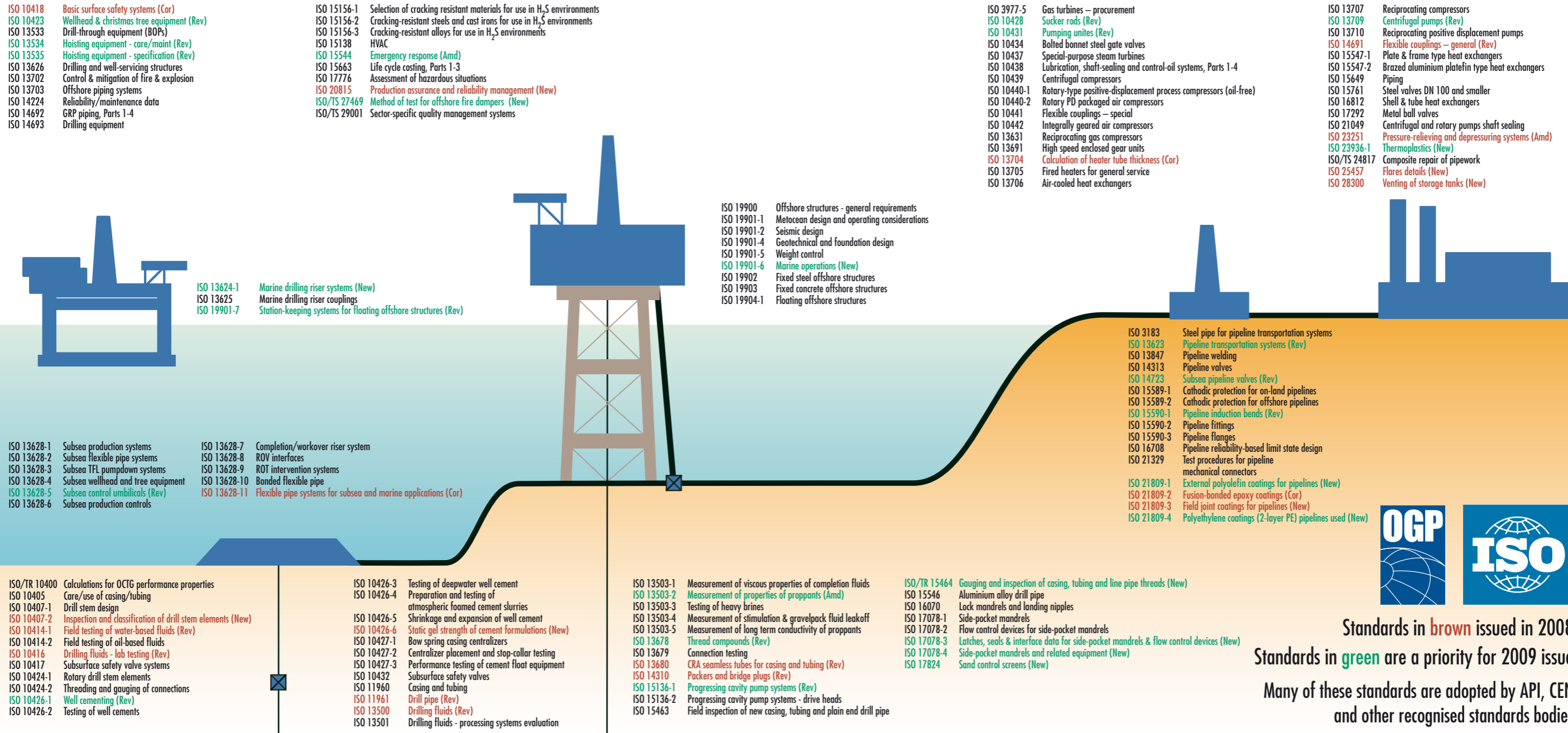
Two principles stand out from both workshops: the need to accelerate adoption of ISO/IEC standards and to heighten participation in the relevant ISO/IEC standards work. Other topics on the agenda included the ways in which international standards can help the local petroleum industry, and overcoming the challenges in aligning local regulations with ISO or IEC standards.

## API OFFSHORE STRUCTURES STANDARDS: CHANGING TIMES

API Subcommittee 2 on structures has provided the offshore oil and gas industry with useful standards for offshore structures for more than forty years. In the early 1990s, API started to map a long term strategy for its standards while actively participating in the preparation of the ISO 19900 series of standards for offshore structures. While



# ISO Standards for use in the oil & gas industry



Standards in **brown** issued in 2008  
Standards in **green** are a priority for 2009 issue  
Many of these standards are adopted by API, CEN  
and other recognised standards bodies

## DENMARK ACCEPTS ISO 19902 - FIXED STEEL OFFSHORE STRUCTURES

Denmark is among the first to accept the new ISO standard into its regulations. This was prompted by the realisation that the prevailing Danish Standard DS 449, introduced in 1983, was outdated. At the time of publication in 1983, however, it was one of the world's most advanced standards based on the ultimate limit-state philosophy and by and large

accepted the principles that new technology, if properly documented by the engineers and users, should be employed. This has made the DS 449 standard a success for many years.

Since Denmark has actively participated in the development of the new ISO 19902 and been able to influence the standard for fixed steel offshore structures, it was only natural that Denmark accepted the new ISO standard, which basically adheres to the principles governing Danish platform designs, including the small monotower platforms which is a Danish speciality! Notwithstanding, it has been hard work to convince everybody involved to accept the new standard. This was possible by agreeing a transition period, ending in the summer of 2010.

## ISO TC 193 NATURAL GAS, SC3 UPSTREAM

This ISO subcommittee has 12 county members but is looking for more experts to join its four Working Groups.

WG1 Allocation and measurement: Technical Report ISO/TR 26762, *Allocation of gas and condensate*, detailing methodologies for the allocation of gas and natural gas liquids has been published in 2008. Currently WG1 is developing a Technical Report (TR) to extend ISO/TR 26762 with Liquefied Natural Gas (LNG) blending.

WG 2 Wet Gas measurement is working on a TR that will cover the issues associated

with measurement of wet natural gas flowrates in the upstream area (ie natural gas with hydrocarbon liquids, water and/or other chemicals) where Lockhart Martinelli parameter is below 0.3.

WG3 Hydrates management is developing a TR on hydrate management covering safety, measurement and monitoring solutions and devices; classification of applications; verification and testing; system design, operation and maintenance tackling problems associated with significant measurement errors by fluid, flow and measurement equipment changes due to hydrates.

WG4 Online gas chromatography: Natural gas in the upstream area is not dry. Small liquid droplets in sampling line can get

into OGC and cause problems. WG 4 will focus on the design of OGC and its peripherals sampling probe location and conditioning) and operational aspect (maintenance, verification and calibration).

**OGP Catalogue**  
The OGP list of global standards for the oil & gas industries is available online at:  
<http://info.ogp.org.uk/standards>

## SUCCESS MILESTONES – ADOPTION PROGRESS

API have now (April 2009) re-adopted some 66 of the ISO standards shown above. CEN have adopted 115; 60 are common to all three organisations. These numbers represent growing consensus around the globe. With China, Brazil, Canada and others adopting the same ISO standards, we are progressing towards the vision:

**Global standards used locally worldwide**

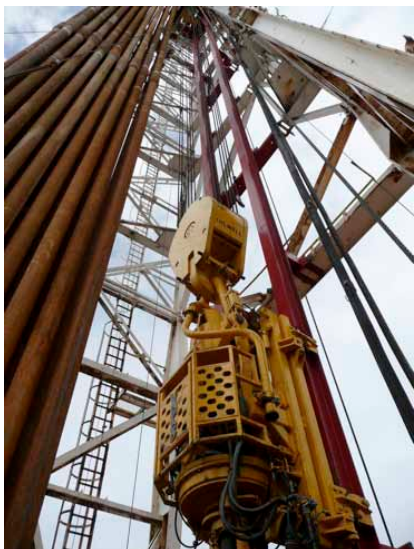
**Capture the value added**  
Make use of well over 138 new ISO standards for your own benefit!

## ISO 11961 STEEL DRILL PIPE

A new revision of the ISO standard 11961 *Petroleum and natural gas industries – Steel drill pipe* was published in November 2008.

This standard contains requirements for three different elements:

- the drill pipe, *ie* the finite piece of steel composed of a pipe with weld-on tool joints
- the drill pipe body, *ie* the piece of tube on which tool joints will be welded
- the tool joint, *ie* the threaded component used to join two drill pipes together.



For each of these elements, the standard defines the chemical composition, the mechanical properties, the dimensions, the inspection and testing to be carried out and the marking. Consequently the standard can be used for purchase of each of the elements independently of the others.

API intends to re-adopt and publish this standard 4Q2009 as API Spec 5DP, 1<sup>st</sup> Edition, which will replace both API Spec 5D and the tool joint section of API Spec 7-1.

### GULF STATES ADOPT ISO

The Gulf Standardisation Organization (GSO) is making significant progress in adoption of recently published ISO and IEC International Standards as Gulf and Gulf states national standards. GSO/TC7

work programme includes standards from ISO/TC67 – Materials, equipment and offshore platforms for the petrochemical, petroleum and natural gas industries, ISO/TC28 – Petroleum products, ISO/TC193 – Natural gas and ISO/TC 176 – Quality Assurance & Quality Management.

GSO has accomplished the identical adoption of 152 of the ISO Standards published by the abovementioned committees as English-language Gulf Standards. 40 of these standards come from ISO TC 67 (centrefold). There are another 34 ISO standards under GSO Technical Council final approval and six of them are under ISO TC 67. The 2009 work program of GSO/TC7 includes the adoption of an additional 112 ISO Standards from these same ISO committees, with 56 from ISO/TC 67.

## ABOUT OGP

The International Association of Oil & Gas producers (OGP) encompasses most of the world's leading publicly traded, private and state-owned oil & gas companies, oil & gas associations and major upstream service companies. OGP members operate in more than 80 different countries and produce more than half the world's oil and about one third of its gas.

The association was formed in 1974 to develop effective communications between the upstream industry and an increasingly complex network of international regulators.

An essential part of OGP's mission is to represent the interests of the upstream industry to international regulators and legislators.

OGP also helps members achieve continuous improvement in safety, health and environmental performance, and in the engineering and operation of upstream ventures. OGP's extensive international membership brings with it a wealth of know-how, data and experience. OGP committees and task forces manage the exchange and dissemination of this knowledge. OGP additionally promotes awareness of Corporate Responsibility issues such as transparency of revenues and combatting corruption.

The OGP Standards Committee monitors, co-ordinates and influences the development of International Standards to meet the needs of OGP members. There is close communication with national, regional and International Standards bodies, particularly the API, CEN and ISO. Information on the activities of the OGP Standards Committee and other OGP committees, including freely downloadable publications produced by the OGP, can be accessed via the OGP website at [www.ogp.org.uk](http://www.ogp.org.uk).

### THE INTERNATIONAL STANDARDS BULLETIN

This bulletin is developed by the OGP Standards Committee, which includes members from: API, BP, CEN, ConocoPhillips, China Petroleum Standards Committee (CPSC), Eni, Energy Institute, ExxonMobil, ISO, Kuwait Oil, Maersk, Petrobras, Petro-Canada, Petronas, Petropars, Qatar Petroleum, Repsol-YPF, Shell, StatoilHydro & Total.

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## OGP POSITION ON STANDARDS

OGP has been a catalyst in the industry's approach to standards and strongly supports the internationalisation of key standards used by the petroleum and natural gas industries.

OGP's position on standards is to:

- promote development and use of ISO and IEC International Standards;
- ensure standards are simple and fit for purpose;
- use International Standards without modification wherever possible;
- ensure visibility of the international standard's identification number, whatever the method of publication;
- base development of standards on a consensus of need;
- avoid duplication of effort;
- minimise company specifications which should be written, where possible, as functional requirements; and
- promote "users" on standards work groups.

The adoption of this approach is expected to minimise technical barriers to trade, enable more efficient worldwide operations, and improve the technical integrity of equipment, materials, and offshore structures used by the petroleum and natural gas industries.