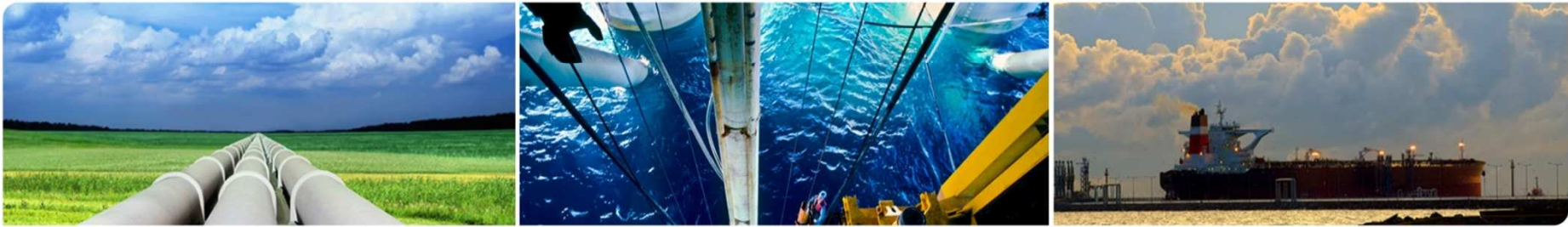




> Organização Nacional da Indústria do Petróleo



ABNT / CB-50 – Materiais, Equipamentos e Estruturas Oceânicas para a indústria de Petróleo e Gás Natural

Arlindo Charbel – cb50@abnt.org.br



Standardisation

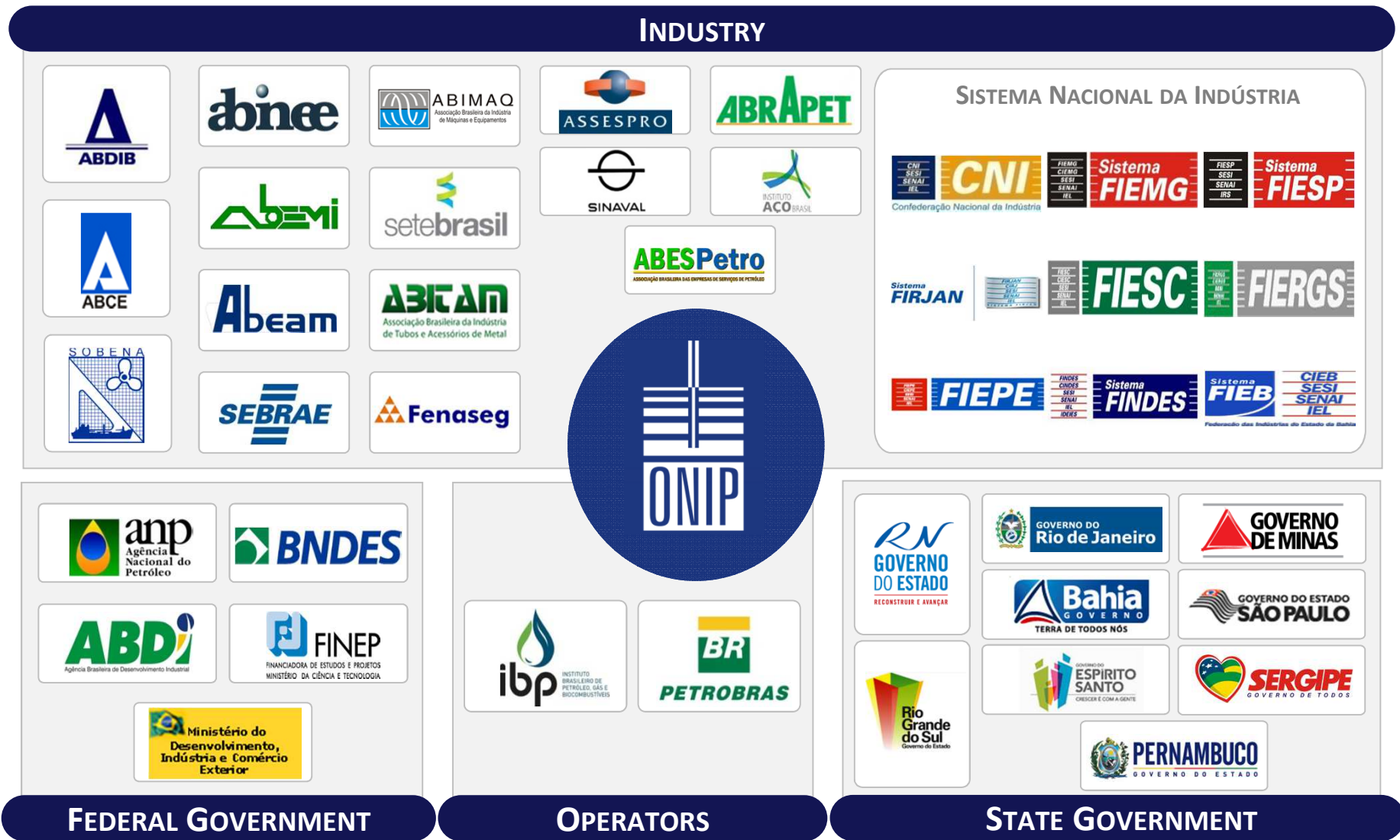


STANDARDS ARE VOLUNTARY AGREEMENTS WHICH ESTABLISH IMPORTANT CRITERIA FOR PRODUCTS, SERVICES AND PROCESSES.

ONIP, IN ORDER TO BETTER ARTICULATE BRAZILIAN STAKEHOLDERS, MADE AN AGREEMENT WITH ABNT AND JOINTLY THEY CREATED CB-50, IN 2002, TO MIRROR ISO TC67 ACTIVITIES.

AIMING COMPETITIVENESS OF BRAZILIAN PETROLEUM SECTOR, ONIP WANTED TO STIMULATE SUPPLY CHAIN TO EXPORTS.

ONIP - Brazilian National Organization of the Petroleum Industry - Members



ONIP - Organização Nacional da Indústria do Petróleo



ASSOCIAÇÃO
BRASILEIRA
DE NORMAS
TÉCNICAS

www.abnt.org.br

**ABNT is
ISO in Brazil**



What is ABNT ?



- ❖ Nonprofit, private entity of public utility, founded in 1940
- ❖ Officially recognized by the Brazilian government as the only national standardization forum (CONMETRO Resolution 7, 24.08.1992)
- ❖ Founder member of ISO, COPANT and AMN
- ❖ IEC member since ABNT was created
- ❖ Signatory of the Code of Good Practices in Standardization from OMC
- ❖ Certification Body for products, services, systems and people





ABNT - aims



- ❖ Manage the process of elaboration for Brazilian Standards
- ❖ Spread the use and adoption of standards
- ❖ Spread the standardization movement in the country
- ❖ Represent Brazil in the international and regional standardization forums
- ❖ Exchange good practices and information with other forums





ABNT in numbers



Members

- 1 200

Staff

- 163 employees

Sources of revenue

- 49% sales of publications
- 25% certification
- 18% membership
- 08% others

Head office: Rio de Janeiro

Branch: São Paulo

Sale points:

Brasília

Bahia

Minas Gerais

Paraná

Rio Grande do Sul





Technical Work



- **Technical Committees**
 - 160 in activity
- **Technical meetings**
 - 2 722 meetings
 - 29 055 participants
- **Published Standards**
 - 7 908 Standards in force

- **Participation on ISO**
 - 344 Technical Committees
 - 234 P-member
 - 110 O-member



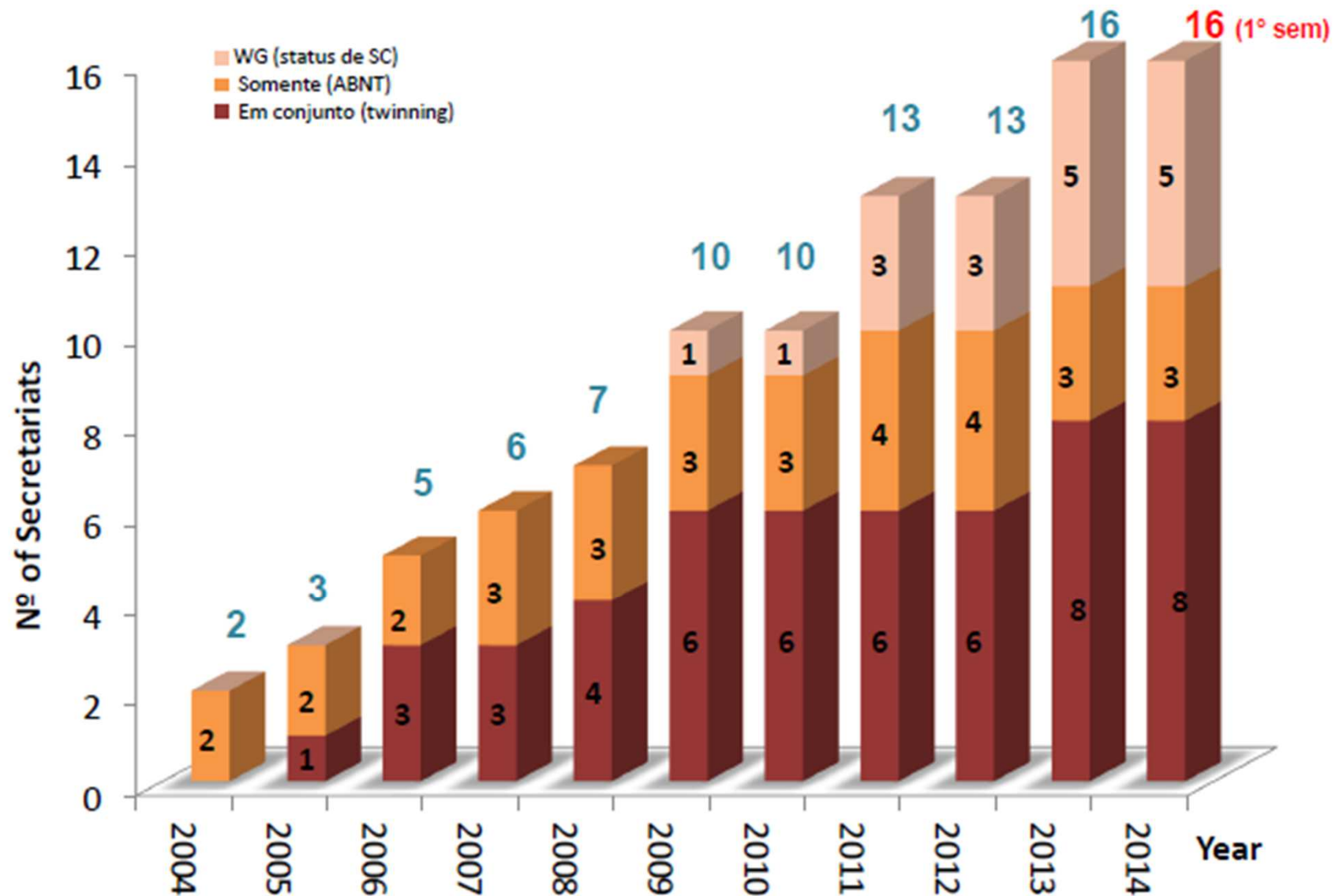


Brazil in ISO

- ❖ Participation in ISO TMB (Technical Management Board):
 - ❑ ABNT has been participating since 2006 (three consecutive reelections)
- ❖ Brazilian international participation has been increasing exponentially
 - ❑ Increase of more than 300% in the number of Secretariats
 - ❑ Frequent participation in ISO Council (achieved 98% of the possible voting options during the last election)
- ❖ ABNT has been seen as one of the preferential options for partnership (holding more than 30 % of the existing twinnings)



ISO committees – Secretariats Comparative Chart





Brazil in ISO



- ❖ ISO General Assembly, in Rio de Janeiro – September/2014

- ❖ Recognition of the technical expertise
 - ABNT has won the Lawrence Eicher Award in 2011 (ISO/TC 34 – twinning with France)

 - ABNT has won the Lawrence Eicher Award in 2012 (ISO/TC 242 – twinning with EUA)

 - **WINNER OF THE FIRST ISO PRIZE – SME' s engagement in Standardization**



ISO/TC 67 Organisation and Secretariats (flags)



- Member countries: 32 participating, 34 observing
- Involves more than 2.500 engineers around the globe
- Last annual plenary meeting, Bangkok, September 2014
- MC meets two times per year + monthly teleconferences
- Published standards: 175
- Current work programme: 101 standards (new + revisions)

CB-50 – participation in ISO/IEC



FORMAL PARTICIPATION IN INTERNATIONAL FORUMS

- WG8 and WG12 secretariat
- Coordination:
 - Ana Maria Teixeira – convenor of ISO TC67/WG12
 - Luiz Otavio Amaral Affonso – convenor of ISO TC67/SC6/WG 2- Lubrication, shaft sealing and control oil systems
 - Jorivaldo Medeiros – convenor of ISO TC67/SC6/WG 5- Piping Systems
- Membership: currently 127 brazilian experts, from 38 brazilian companies, are members of project teams in ISO TC38, TC67, TC115, TC118, TC153 and IEC TC18. In average, experts from more than 11 companies have been participating in ISO international events. Every year Brazil has been hosting two events , at least.

ISO Standards for use in the oil & gas industry



ISO Standards for use in the oil & gas industry

Standards in blue issued in 2013
Standards in green are a priority for 2014 issue
 These ISO standards are only a core collection of several hundreds of International Standards available for the oil & gas industry (<http://info.ogp.org.uk/standards/>)

ISO 10418 Basic surface safety systems
ISO 10423 Wellhead & christmas tree equipment
ISO/TR 12489 Reliability modelling/safety systems (New) - Published 2013
ISO 12622 Drill through equipment (SOPE)
ISO 12624 Shallow gas diverter equipment (New)
ISO 12623 Drill through equipment (SOPE)
ISO 12624 Hoisting equipment - casing/inst
ISO 12625 Hoisting equipment - specification
ISO 12626 Drilling and well seal long structures
ISO 12700 Control & mitigation of fire & explosion (Rev)
ISO 12709 Offshore piping systems
ISO 14224 Reliability maintenance data
ISO 14692 GRP piping, Parts 1-4
ISO 14693 Drilling equipment
ISO 15156-1 Selection of cracking resistant materials for use in H₂S environments
ISO 15156-2 Cracking-resistant steels and cast irons for use in H₂S environments
ISO 15156-3 Cracking-resistant alloys for use in H₂S environments

ISO 15126 HVAC
ISO 15544 Emergency response
ISO 15669 Life cycle costing, Parts 1-2
ISO 17778 Assessment of hazardous situations
ISO/TS 17369 Guidelines on competency for personnel (New)
ISO 20615 Production assurance and reliability management
ISO 21412 Materials selection
ISO 22226-1 Thermoplastics
ISO 22226-2 Elastomers (New)
ISO/TS 27469 Method of test for offshore fire dampers
ISO/TS 29001 Sector-specific quality management systems

ISO 2927-5 Gas turbines - Procurement
ISO 10428 Sucker rods
ISO 10431 Pumping units
ISO 10434 Bolted bonnet steel gate valves
ISO 10437 Special-purpose steam turbines (Rev)
ISO 10438 Lubrication, shaft sealing and control-oil systems, Parts 1-4
ISO 10439 Centrifugal compressors
ISO 10440-1 Rotary-type positive-displacement process compressors (oil-free)
ISO 10440-2 Rotary PD packaged air compressors
ISO 10441 Flexible couplings - Special
ISO 10442 Internally geared air compressors
ISO 12211 Spiral plate heat exchangers
ISO 12212 Hairpin heat exchangers
ISO 12621 Reciprocating gas compressors
ISO 12621 High speed endosed gear units
ISO 12704 Calculation of header tube thickness
ISO 12705 Fired heaters for general service
ISO 12706 Air-cooled heat exchangers
ISO 12707 Reciprocating compressors
ISO 12709 Centrifugal compressors

ISO 12710 Reciprocating positive displacement pumps
ISO 14691 Flexible couplings - General
ISO 15547-1 Plate & frame type heat exchangers
ISO 15547-2 Brazed aluminium platefin type heat exchangers
ISO 15649 Piping
ISO 15761 Steel valves DN 100 and smaller
ISO 16012 Shell & tube heat exchangers (Rev)
ISO/TS 16901 Risk assessment of offshore LNG installations
ISO 16361 Coating of above-ground steel storage tanks (New)
ISO 17177 Unconventional LNG transfer systems (New)
ISO 17292 Metal ball valves
ISO 21049 Centrifugal and rotary pumps shaft sealing
ISO 22251 Pressure-relieving and depressuring systems
ISO 24017 Composite repair of pipework (Rev)
ISO 25457 Flange details
ISO 27509 Compact flanged connections
ISO 28200 Venting of storage tanks
ISO 29460 LNG - Ship to shore interface

ISO 12624-1 Marine drilling riser systems
ISO/TR 12624-2 Marine drilling riser system analysis
ISO 12625 Marine drilling riser couplings
ISO 19501-7 Station-keeping systems for floating offshore structures (Rev) - Published 2013
ISO 19504-1 Floating offshore structures

ISO 12625-1 Subsea production systems (Amnd)
ISO 12625-2 Subsea flexible pipe systems
ISO 12625-3 Subsea TPL pumpdown systems
ISO 12625-4 Subsea wellhead and tree equipment
ISO 12625-5 Subsea control umbilicals
ISO 12625-6 Subsea production controls
ISO 12625-7 Composite onshore riser system
ISO 12625-8 ROT interfaces

ISO 12625-9 ROT intervention systems
ISO 12625-10 Bonded flexible pipe
ISO 12625-11 Flexible pipe systems for subsea and marine applications
ISO 12625-15 Subsea structures and manifolds

ISO/TR 10400 Calculations for OCTG performance properties
ISO 10405 Casing and tubing
ISO 10407-1 Drill stem design
ISO 10407-2 Inspection and classification of drill stem elements
ISO 10414-1 Field testing of water-based fluids
ISO 10414-2 Field testing of oil-based fluids
ISO 10416 Drilling fluids - lab testing
ISO 10417 Subsurface safety valve systems
ISO 10424-1 Rotary drill stem elements
ISO 10424-2 Threading and gauging of connections

ISO 10425-1 Well cementing
ISO 10425-2 Testing of well cements
ISO 10425-3 Testing of deepwater well cement
ISO 10425-4 Preparation and testing of atmospheric foamed cement slurries
ISO 10425-5 Shrinkage and expansion of well cement
ISO 10425-6 Static gel strength of cement formulations
ISO 10427-1 Blow spring casing centralizers

ISO 10427-2 Centralizer placement and stop-collar testing
ISO 10427-3 Performance testing of cement float equipment
ISO 10432 Subsurface safety valves
ISO 11900 Casing and tubing (Rev)
ISO 11961 Drill pipe
ISO 12532 Qualification of casing connections for thermal wells (New)
ISO 13005 Tubing aluminium alloy pipes (New)
ISO 13500 Drilling fluids (Amnd)
ISO 13501 Drilling fluids - processing systems evaluation
ISO 13503-1 Measurement of viscous properties of completion fluids
ISO 13503-2 Measurement of properties of proppants
ISO 13503-3 Testing of heavy brines
ISO 13503-4 Measurement of stimulation & gravelpack fluid leakoff
ISO 13503-5 Measurement of long term conductivity of proppants
ISO 13503-6 Measurement of leak-off of completion fluids under dynamic conditions (New)
ISO 13675 Thread compounds
ISO 13679 Connection testing
ISO 13680 CFA seamless tubes for casing and tubing
ISO 14310 Packers and bridge plugs

ISO 19900 Offshore structures - general requirements (Rev) - Published 2013
ISO 19901-1 Malcocean design and operating considerations (Rev)
ISO 19901-2 Seismic design (Rev)
ISO 19901-3 Topside structure
ISO 19901-4 Geotechnical and foundation design (Rev)
ISO 19901-5 Weight control
ISO 19901-6 Marine operations
ISO 19901-8 Marine soil investigations (New)
ISO 19902 Fixed steel offshore structures (Amnd 1) - Published 2013
ISO 19903 Fixed concrete offshore structures
ISO 19905-1 Jack-ups
ISO/TR 19905-2 Jack-up commentary (New)
ISO 19906 Arctic offshore structures

2153 Steel pipe for pipeline transportation systems
ISO 12490 Actuation, mechanical integrity and sizing for pipeline valves
ISO 12726 Well thermal insulation coatings (New)
ISO/TS 12747 Pipeline life extension (New)
ISO 12623 Pipeline transportation systems
ISO 12647 Pipelines welding (Rev) - Published 2013
ISO 14317 Pipeline valves
ISO 14723 Subsea pipeline valves
ISO 15529-1 Cathodic protection for on-land pipelines (Rev)
ISO 15529-2 Cathodic protection for offshore pipelines
ISO 15590-1 Pipeline induction bends
ISO 15590-2 Pipeline fittings
ISO 15590-3 Pipeline flanges
ISO 16440 Steel-cased pipelines (New)
ISO 16706 Pipeline reliability-based limit state design
ISO 21329 Test procedures for pipeline mechanical connectors
ISO 21309-1 Polyolefin coatings (2-layer PE and 3-layer PP)
ISO 21309-2 Fusion-bonded epoxy coatings (Rev)
ISO 21309-3 Field joint coatings for pipelines
ISO 21309-4 Polyethylene coatings (2-layer PE)
ISO 21309-5 External concrete coatings

ISO 14296 Accessory completion equipment (New) - Published 2013
ISO 15136-1 Progressing cavity pump systems
ISO 15136-2 Progressing cavity pump systems - drive heads
ISO 15403 Field inspection of new casing, tubing and plain and drill pipe
ISO 15454 Gauging and inspection of threads
ISO 15546 Aluminium alloy drill pipe
ISO 16070 Lock mandrels and landing nipples
ISO/TS 16330-2 Well integrity operational phase (New)
ISO 17075-1 Side-pocket mandrels (Amnd)
ISO 17075-2 Flow control devices for side-pocket mandrels
ISO 17075-3 Lubricity & seals for side-pocket mandrels & flow control devices
ISO 17075-4 Side-pocket mandrels and related equipment
ISO 17524 Sand control screens
ISO 20312 Design of aluminium drill string
ISO 27627 Aluminium drill pipe thread gauging (New)
ISO 28781 Subsurface tubing mounted formation barriers



SECRETARIA TÉCNICA

