



# **CIS/Russian Equipment Standards Situation**

**Anatoly Baryshnikov, PhD**

Eni E&P coordinator of International standardisation

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# Program of Presentation

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1

CIS (GOST)

2

Russia (GOST R)

3

Kazakhstan (ST RK)

4

Ukraine (DSTU), CEN TC12 AH8, etc.

## Specific Features of Technical Standardization in CIS (GOST)

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- ▶ Commonwealth of Independent States (CIS) have historically followed the USSR model and uses their national standards as national legislation.
- ▶ CIS is now in a transition period from a mandatory standardization system to a voluntary model. GOST standards are 10-20 years old and mainly based on API standards with some modifications.
- ▶ CIS countries are not widely involved in international standardization (as exception, ISO 15546 and 19906).
- ▶ Euro Asian Interstate Council (EASC) for Standardization, Metrology and Certification coordinates the work in 12 CIS countries.
- ▶ EASC TCs for petroleum, petrochemical and natural gas industries:
  - TC 31 «Liquid fuels and lubricant materials»;
  - TC 52 «Natural gas»;
  - TC 139 «Liquefied petroleum gases»;
  - TC 260 «Equipment for the chemical and petrochemical industries»

## Comparison of API and GOST Standards

API N°	GOST N°	GOST Description
<b>Wellhead and Well Control Equipment</b>		
Spec 6A	GOST 28996	Oilfield wellhead equipment – Terms and conditions
	GOST 13846	Production and injection wellhead equipment – Standard schemes, basic parameters and technical requirements for construction
	GOST 28919	Flange connections of wellhead equipment – Types, basic parameters, steel flanges with tongue and groove for Py up to 6,4 MPa and Dy up to 300 mm – Connecting dimensions
	TU 26-02-579-74	Wellhead equipment of OKK type
	GOST 7798	Hexagonal bolts (standard precision) – Construction and dimensions
Spec 16A	GOST 13862	Blow out preventer equipment – Standard schemes, basic parameters, and technical design equipment
Spec 16C	GOST 12448	Pneumatic – Hydraulic accumulators
Spec 16D	GOST 12.2.115	Safety Standards

## Comparison of API and GOST Standards (Continued)

Casing and Tubing		
Spec 5CT, Spec 5CTM	GOST 632	Casing pipes with couplings – Technical conditions
	GOST 633	Tubing pipes and couplings – Specifications
Bull 5C2	GOST 380	Plain carbon steels – Grades – All union product class 08 7010
Bull 5C3	GOST 6238	Casing and covering pipes for drilling operations in geological prospecting and nipples for them – Specifications
	GOST 8731	Hot-formed seamless steel pipes
	GOST 8732	Seamless hot-formed steel tubes – Range
	RD 39-7/1-0001	Instructions on calculations of oil and gas well casing
	RD 39-0147014-515	Instructions on calculation of tubings for oil and gas wells in fields with hydrogen sulfide
	RD 39-2-132	Instructions on preparation of casings for lowering into a well. Instructions on well hydraulic test

## Comparison of API and GOST Standards (Continued)

Drill String		
Spec 5D	GOST 631	Internal-external upset drill pipes with couplings – Specifications
RD 7G	GOST 28487	Tool joint tapered thread for drill string elements – Profile and dimensions.
	GOST 5286	Joints for drill pipes
	GOST 27834	Weld-on tool joints for drill pipes – Specifications
	TU 14-3-1571	Drill pipes with weld-on tool joints – Specifications
Spec 7	GOST 7360	Drill stem subs – Technical conditions
	TU 51-744	UBTS-2 Drill collars
	TU 6325.000-00.00.00	Drill collars – Specifications
	TU 6328.000-00.00.00	Kellys – Specifications
	TU 51-276-86	Collapsible kellys

## Comparison of API and GOST Standards (Continued)

Drilling Fluid Materials and Well Cements		
Spec 13A	OST 39-202	Clay powders
	GOST 4682	Barite concentrate
	OST 39-128	Barite modified weighting powder
	TU 39-981	Barite weighting materials
Spec 10	GOST 1581	Grouting portland cements – Specifications
Spec 10A	GOST 26798	Grouting cements – Methods of testing

## Comparison of API and GOST Standards (Continued)

Derricks, Masts, Hoisting and Drilling Equipment		
Spec 4E, Spec 4F & RP 4G	GOST 16293	Unitized drilling rigs for development and deep exploratory drilling – Basic
Spec 8A & Spec 8C	GOST 28113	Workover and production hoisting units for oil and gas wells – Types and basic parameters
	GOST 25468	Hoisting equipment and swivels coupling dimensions
Spec 7K	GOST 6031	Mud-pumps – Basic parameters
	GOST 4938	Rotors of drilling rigs – Basic parameters

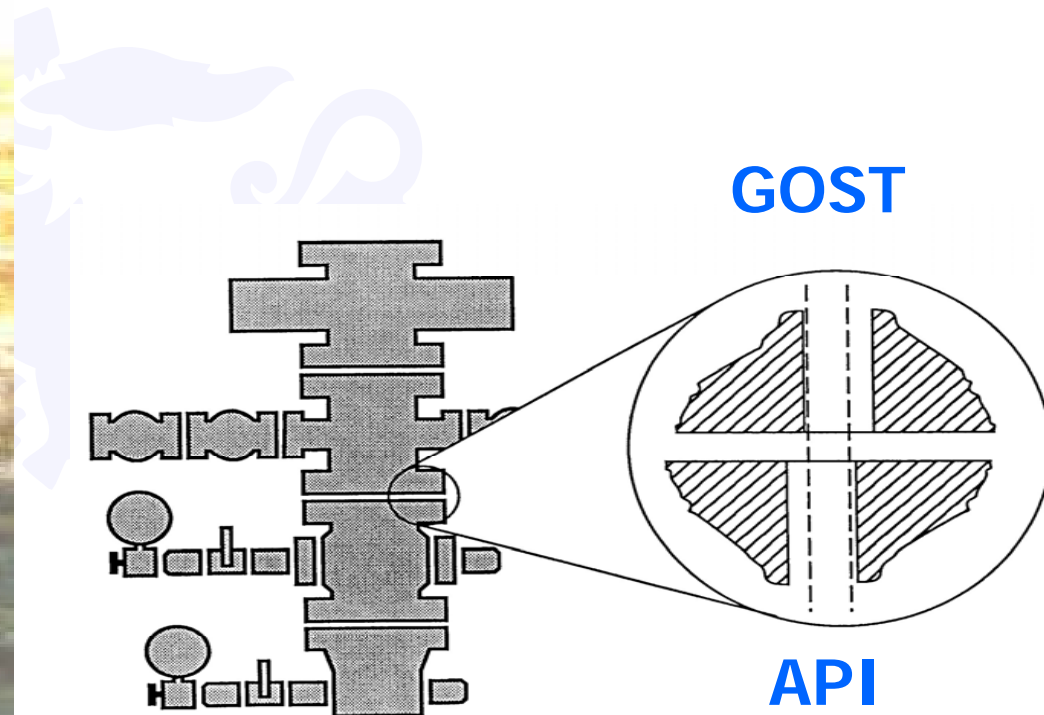
## Comparison of API and GOST Standards (Continued)

Wire Rope and Oil Field Chain		
Spec 9A & Spec 9B	GOST 3067	Two lay steel rope of TK type construction 6x19
	GOST 3068	Two lay steel rope of TK type construction 6x37
	GOST 3070	Two lay steel rope of TK type construction 6x19
	GOST 3071	Two lay steel rope of TK type construction 6x37
	GOST 3085	Trihedral stranded two lay rope construction 6x30
	GOST 3088	Two lay polystranded rope of LK-R construction 18x19
	GOST 3241	Steel ropes – Specification
	GOST 7372	Steel wire for ropes – Specifications
	GOST 5269	Hemp cores for steel ropes
	GOST 13840	Reinforced steel ropes 1x7 – Specifications
	GOST 16853	Steel wire ropes for development and deep exploratory drilling
Spec 7F	GOST 21834	High precision, heavy duty transmission roller chains - Specifications

## Example of Different Standards Usage



Extract from the European report on ecology of  
Siberia



## CIS Participation in International Standardisation

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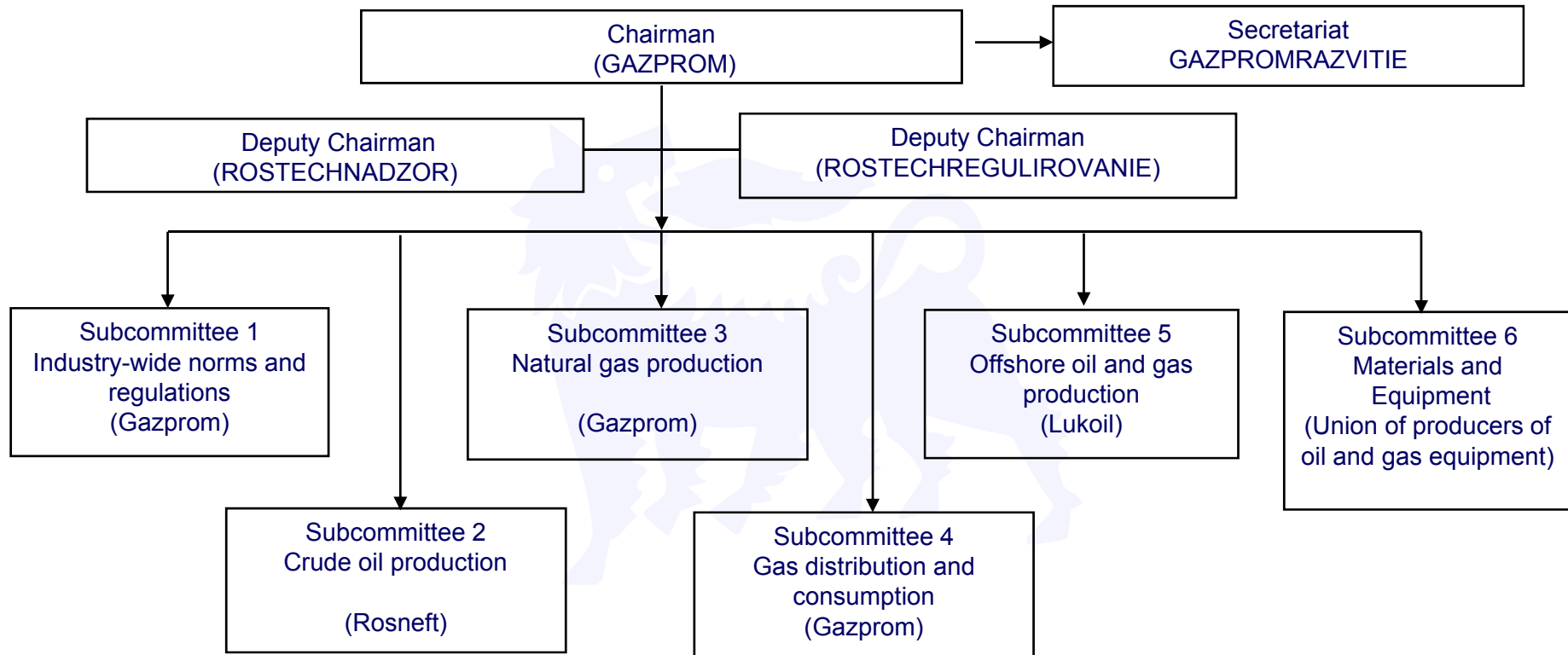
ISO 15546:2007 is based on GOST 23768-79 and RD 39-2-303-79

## GOST R TCs (Russia) Related to ISO TC67

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- › TC23 “Technique and technology of production and processing of petroleum and natural gas”
- › TC357 “Steel and cast-iron pipes and gas-cylinders”
- › TC431 “Exploration, development & conservation of mineral resources”
- › TC463 “Pipeline transportation”

# GOST R TC23 Structure



# ISO TC67 Standards Adoption in Russia

## Air-Cooled Heat Exchangers for General Refinery Service

ANSI/API STANDARD 681  
SIXTH EDITION, FEBRUARY 2006

ISO 13706-1:2005, (Identical) Petroleum, petrochemical and natural gas industries— Air-cooled heat exchangers

EUROPEAN STANDARD **EN ISO 13706**  
 NORME EUROPÉENNE  
 EUROPÄISCHE NORM October 2005

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ICS 75.180.20; 27.060.30 Supersedes EN ISO 13706:2000

English Version

**Petroleum, petrochemical and natural gas industries - Air-cooled heat exchangers (ISO 13706:2005)**

Industries du pétrole, de la pétrochimie et du gaz naturel - Echangeurs de chaleur refroidis à l'air (ISO 13706:2005) Erdöl- und Erdgasindustrien - Luftgekühlte Wärmetauscher (ISO 13706:2005)

This European Standard was approved by CEN on 30 September 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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ФЕДЕРАЛЬНОЕ АГЕНТСТВО  
ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ

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НАЦИОНАЛЬНЫЙ  
СТАНДАРТ  
РОССИЙСКОЙ  
ФЕДЕРАЦИИ

**ГОСТ Р ИСО  
13706—  
2006**

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**АППАРАТЫ С ВОЗДУШНЫМ ОХЛАЖДЕНИЕМ**

**Общие технические требования**

ISO 13706:2000  
Petroleum and natural gas industries — Air — cooled heat exchangers (IDT)

Издание официальное

IS 12—2006/06



Москва  
Стандартинформ  
2007



## ISO TC67 Standards Adoption Program in Russia for 2008

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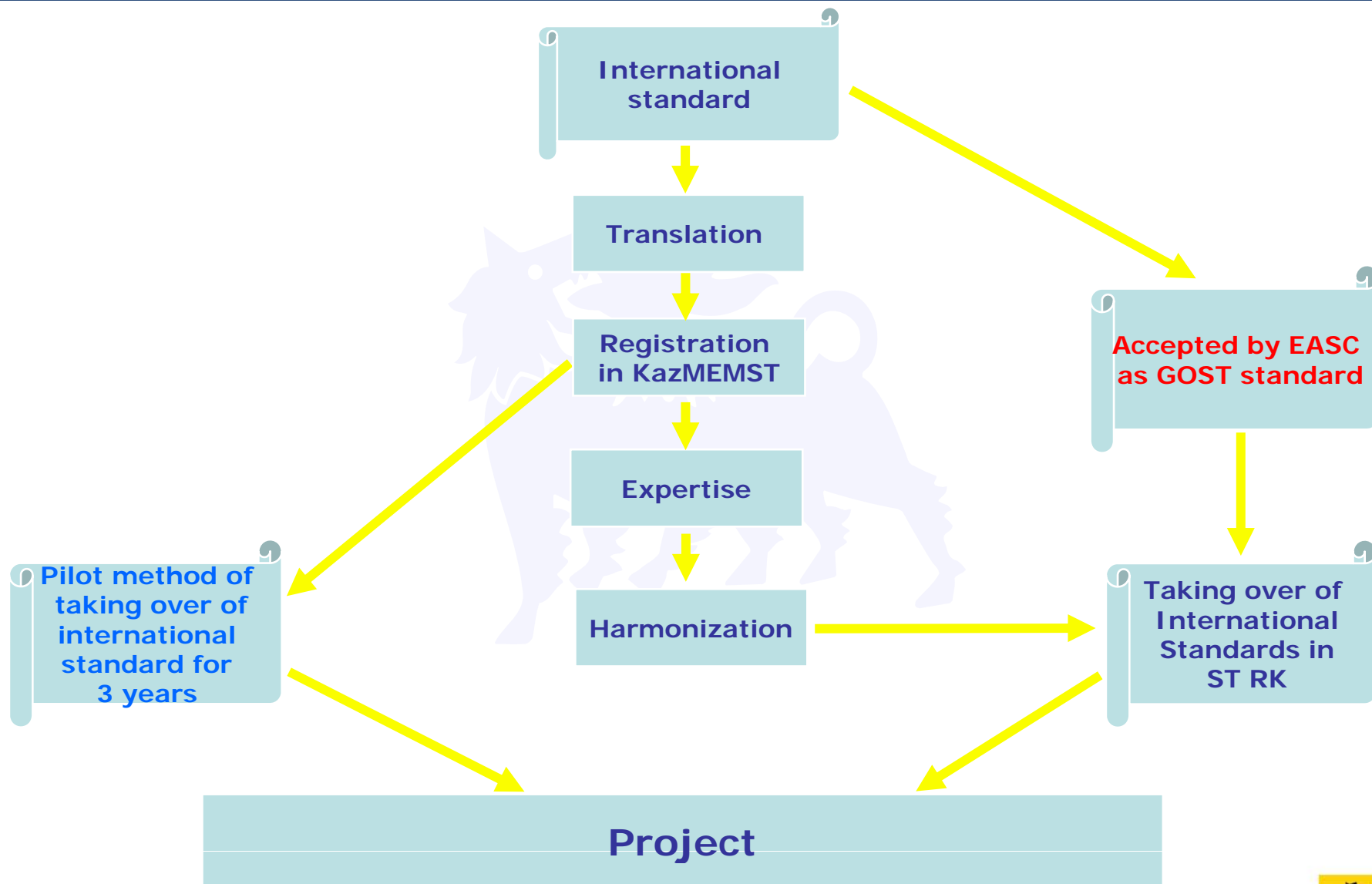
- › ISO 3183-1:1996 “P&NGI - Steel pipe for pipeline transportation systems - Technical delivery conditions - Part 1: Pipes of requirement class A”
- › ISO 3183-2:1996 “P&NGI - Steel pipe for pipeline transportation systems - Technical delivery conditions - Part 2: Pipes of requirement class B”
- › ISO 3183-3:1999 “P&NGI - Steel pipe for pipeline transportation systems - Technical delivery conditions - Part 3: Pipes of requirement class C”
- › ISO 10423:2003 “P&NGI - Drilling and production equipment - Wellhead and christmas tree equipment”
- › ISO 13535:2000 “P&NGI - Drilling and production equipment – Hoisting equipment”
- › ISO 13703:2000 “P&NGI - Design and installation of piping systems on offshore production platforms”
- › ISO 13705:2006 “P&NGI - Fired heaters for general refinery service”
- › ISO 13707:2000 “P&NGI - Reciprocating compressors”
- › ISO 14693:2003 “P&NGI – Drilling and well services equipment”
- › ISO 15156-1:2001 “P&NGI - Materials for use in H<sub>2</sub>S containing environments in oil and gas production - Part 1: General principles for selection of cracking-resistant materials”
- › ISO 15156-2:2003 “P&NGI - Materials for use in H<sub>2</sub>S containing environments in oil and gas production – Part 2: Cracking resistant carbon and low alloy steels, and the use of cast irons”
- › ISO 15547-1:2005 “P&NGI - Plate-type heat exchangers -- Part 1: Plate-and-frame heat exchangers”
- › ISO 16812:2007 “P&NGI - Shell and tube heat exchangers”
- › ISO 19900:2002 “P&NGI - Offshore structures - General requirements”

## ISO TC67 Standards Adoption in Kazakhstan

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- › 49 CEN/TC12 standards are already adopted in Kazakhstan as identical (26), modified (15) and not equivalent standards (8).
- › 11 CEN/TC12 standards were adopted in 2007 and other 10 standards should be adopted in 2008.
- › MEMR discussed with KAZMEMST regarding the structure of National standards to be in accordance with ISO format and this proposal was accepted in 2007

# International Standards Use in Kazakhstan



## DSTU TCs (Ukraine) Related to ISO TC67

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- › TC8 “Steel pipes and cylinders”
- › TC21 “Pumps”
- › TC28 “Compressors”
- › TC108 “Pipeline fittings”
- › TC146 “Materials, equipment, technologies and structures for oil and gas industry”

SC1 Drilling and Production equipment

SC2 Pipeline transportation systems

SC3 Quality control, certification in oil and gas industry

# ISO TC67 Standards Adoption in Ukraine

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- DSTU EN ISO 13534:2000 “P&NGI - Drilling and production equipment - Inspection, maintenance, repair and remanufacture of hoisting equipment”
- DSTU EN ISO 13535:2000 “P&NGI - Drilling and production equipment – Hoisting equipment”
- DSTU EN ISO 13625:2002 “P&NGI - Drilling and production equipment – Marine drilling riser couplings”
- DSTU EN ISO 13703:2000 “P&NGI – Design and installation of piping systems on offshore production platforms”
- DSTU EN ISO 15136-1:2001 “Downhole equipment for petroleum and natural gas industries - Progressing cavity pumps systems for artificial lift - Part 1 : Pumps”
- ISO 20815 “Production assurance and reliability management “ (in 2008 plan)
- ISO 15546 “P&NGI - Aluminium alloy drill pipes“(in 2008 plan)
- ISO 13680 “P&NGI - Corrosion resistant alloy seamless tubes for use as casing, tubing and coupling stock - Technical delivery conditions” (in 2008 plan)
- ISO 23936-1 “Non-metallic materials in contact with media related to oil and gas production – Part 1: Thermoplastics” (in 2008 plan)
- ISO 10400 “P&NGI- Formulae and calculation for casing, tubing, drill pipe and line pipe properties” (in 2009 plan)
- ISO 10405 “P&NGI- Care and use of casing and tubing” (in 2009 plan)
- ISO 10407 “P&NGI - Field testing of drilling fluids Part 1 : Water-based fluids” (in 2009 plan)
- ISO 10417 “P&NGI - Subsurface safety valve systems - Design, installation, operation and redress” (in 2009 plan)
- ISO 10432 “P&NGI – Downhole equipment - Subsurface safety valve equipment” (in 2009 plan)

# ISO TC67 Standards National Adoptions with CIS

ISO	Kazakhstan	Russia	Ukraine
ISO 3183-1:1996 (revised)	in 2007 plan	in 2008 plan	
ISO 3183-2:1996 (revised)	in 2007 plan	in 2008 plan	
ISO 3183-3:1999 (revised)	in 2007 plan	in 2008 plan	
ISO 10400:1993 (revised)	ST RK 1252-2004 (MOD)		in 2009 plan
ISO 10405:2000	ST RK 1256-2004 (NEQ)		in 2009 plan
ISO 10407:1993	ST RK ISO 10407-2004		in 2009 plan
ISO 10414-1:2001	ST RK ISO 10414-1-2004		
ISO 10414-2:2002	ST RK ISO 10414-2-2004		
ISO 10416:2002	ST RK 1257-2004 (NEQ)		
ISO 10417:2004	ST RK ISO 10417-2007		in 2009 plan
ISO 10418:2003	ST RK ISO 10418-2005		
ISO 10423:2003	ST RK ISO 10423-2004	in 2008 plan	
ISO 10426-1:2005	ST RK 1258-1-2004 (NEQ)		
ISO 10427-1:2001	ST RK ISO 10427-1-2004		
ISO 10427-3:2003	ST RK ISO 10427-3-2004		
ISO 10428:1993	ST RK 1259-2004 (NEQ)		
ISO 10431:1993	ST RK 1260-2004 (NEQ)		
ISO 10432:2004	ST RK ISO 10432-2004		in 2009 plan

## TC67 Standards National Adoptions with CIS (Continued)

ISO 10434:2004			in 2008 plan
ISO 10439:2002	ST RK ISO 10439-2004		in 2008 plan
ISO 10440-1:2000	ST RK ISO 10440-1-2004		
ISO 10440-2:2001	ST RK ISO 10440-2-2004		
ISO 10441:1999 (revised)	ST RK ISO 10441-2004		
ISO 10442:2002	ST RK ISO 10442-2004		in 2008 plan
ISO 11960:2004		in 2009 plan	
ISO 11961:1996 (revised)		in 2009 plan	
ISO 13500:2006 (revised )	ST RK 1261-2004 (NEQ)		
ISO 13533:2001	ST RK ISO 13533-2004		
ISO 13534:2000	ST RK ISO 13534-2004		DSTU EN ISO 13534:2000
ISO 13535:2000	ST RK 1263-2004 (NEQ)		DSTU EN ISO 13535:2000
ISO 13625:2002	in 2007 plan		DSTU EN ISO 13625:2002
ISO 13628-1:2005	in 2007 plan		
ISO 13628-2:2006	in 2007 plan		
ISO 13628-3:2000	in 2007 plan		
ISO 13628-4:1999	in 2007 plan		
ISO 13628-5:2002	in 2007 plan		
ISO 13628-6:2006	in 2007 plan		
ISO 13628-8:2002	in 2007 plan		

## TC67 Standards National Adoptions with CIS (Continued)

ISO 13631:2002	ST RK ISO 13631-2004		in 2008 plan
ISO 13678:2000	ST RK 1264-2004 (MOD)		
ISO 13679:2002	ST RK 1262-2004 (NEQ)		
ISO 13680:2000	ST RK ISO 13680-2004		in 2008 plan
ISO 13702:1999	ST RK ISO 13702-2006		
ISO 13703:2000	ST RK ISO 13703-2006		DSTU EN ISO 13703:2000
ISO 13705:2006		in 2008 plan	
ISO 13706:2005		GOST R 13706-2006	
ISO 13707:2002	ST RK ISO 13707-2004	in 2008 plan	in 2008 plan
ISO 13709:2003	ST RK ISO 13709-2004		in 2008 plan
ISO 13710:2004	ST RK ISO 13710-2006		
ISO 19902	in 2007 plan		
ISO 13847:2000	in 2007 plan		
ISO 13879:1999	ST RK ISO 13879-2004		
ISO 13880:1999	ST RK ISO 13880-2004		
ISO 14224:2006 (revised)	ST RK 1268-2004 (MOD)		
ISO 14310:2001	ST PK 1253-2004 (MOD)		

## TC67 Standards National Adoptions with CIS (Continued)

ISO 14313 : 1999	ST RK 1269-2004 (MOD)		in 2008 plan
ISO 14691:1999	ST RK ISO 14691-2004		
ISO 14692-1:2002	ST RK 1255-1-2004 (MOD)		
ISO 14692-2:2002	ST RK 1255-2-2004 (MOD)		
ISO 14692-3 : 2002	ST RK 1255-3-2004 (MOD)		
ISO 14692-4:2002	ST RK 1255-4-2004 (MOD)		
ISO 14693:2003		in 2008 plan	
ISO 14723:2001	ST RK ISO 4723-2006		
ISO 15136-1:2001	ST RK 1254-1-2004 (MOD)		DSTU EN ISO 15136-1:2001
ISO 15136-2:2006			
ISO 15138:2000	ST RK ISO 15138-2006		
ISO 15156-1:2001		in 2008 plan	
ISO 15156-2:2003		in 2008 plan	
ISO 15546:2007	in 2007 plan		in 2008 plan
ISO 15547-1:2000 (revised)	ST RK ISO 15547-2004	in 2008 plan	
ISO 15547-2:2000 (revised)	ST RK ISO 15547-2004		
ISO 15589-2:2004	in 2007 plan		

## TC67 Standards National Adoptions with CIS (Continued)

ISO 15590-1:2001	ST RK ISO 15590-1-2004		
ISO 15590-2:2003	in 2007 plan		
ISO 15590-3:2004	in 2007 plan		
ISO 15649:2001	ST RK 1267-2004 (MOD)		
ISO 15663-1:2000	ST RK 1265-1-2004 (MOD)		
ISO 15663-2:2001	ST RK 1265-2-2004 (MOD)		
ISO 15663-3:2001	ST RK 1265-3-2004 (MOD)		
ISO 15761:2002	ST RK ISO 15761-2004		in 2008 plan
ISO 16070:2001 (revised)	ST RK 1266-2004 (MOD)		
ISO 16812:2002 (revised)	ST RK ISO 16812-2004	in 2008 plan	
ISO 17292:2004			in 2008 plan
ISO 17776:2000	ST RK ISO 17776-2004		
ISO 19900:2002	ST RK ISO 19900:2006	in 2008 plan	
ISO 19901-1:2005	ST RK ISO 19901-1:2006		
ISO 19901-2:2004	ST RK ISO 19901-2:2006		
ISO 19901-4:2003	ST RK ISO 19901-4:2006		
ISO 19901-5:2003	ST RK ISO 19901-5:2006		
ISO 19901-7:2005	ST RK ISO 19901-7:2006		
ISO 21329:2004	in 2007 plan		
ISO TS 29001:2003	ST RK ISO 29001:2006		

# CEN TC12 AH8

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(ISO TC67)

**Title:** Harmonization in standardization between CEN and EASC, in the field of materials, equipment and offshore structures for petroleum and petrochemical and natural gas industries

**Scope:** Promote harmonization in standardization between CEN/TC12 and relevant technical committees of relevant standardization bodies of member-countries of EASC (Euro Asian Council for Standardization, Metrology and Certification)

# Information Resources



## EuroAsian Interstate Council for Standardization, Metrology and Certification

- **Language/Язык**
- **EASC**
  - [About Organization](#)
  - [Legal Base](#)
  - [Council Membership](#)
  - [Activity Directions](#)
  - [Organizational and methodical documents](#)
- **Information Resources**
- **Voting**
- **Dangerous Products**
- **News**
- **International Cooperation**
- **Guest book**

[www.easc.org.by](http://www.easc.org.by)

[www.gost.ru](http://www.gost.ru)

[www.pngis.net](http://www.pngis.net)

**PNGIS.net is**

An international committee of experts joint for the purpose of help in developing and use International Standards in petroleum and natural gas industries. On this website the results of our work are presented.

### Databases

- **Standards:** CEN, ISO, API, NORSOK, GOST, etc.
- **Regulations:** European and national directives, acts, guidelines, etc.
- **Documents:** resolutions, meeting reports, comments, etc.
- **Experts:** members of API, CEN, ISO and other working groups
- **Meetings:** ISO/TC67, CEN/TC12, OGP, TN5/WP7, etc.
- **Companies:** p&ngi equipment manufacturers and service companies
- **Products:** p&ngi equipment and services

### P&ngi terminology

- **Glossary** (English, Russian, Italian, French, German)
- **Dictionary** (English, Russian, Italian, French)

### Standardization committees

- **ISO/TC67 — Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries**
- **TN5/WP7 — Smart Reservoir Thematic Network: Standards and Regulation**

### Meetings

**2007-01-26 ISO/TC67/SC5/WG1 meeting (in conjunction with the API winter meeting)** in Scottsdale, Arizona, USA

**2007-02-12 ISO/TC67/MC meeting** in Sofitel Hotel, Bucharest, Romania

### Standard voting end

**2007-02-14 ISO 15546** FDIS

**2007-02-21 ISO 15138** DIS

### Document voting end

*No voting planned.*

### For your attention

**English-Italian and Italian-English technical dictionary on oil and gas**

Milan, 2003. — 43 000 terms, 650 pages.

**List of Petroleum, Petrochemical & Natural Gas Industries ISO Standards adopted back in CEN and in API (CEN/TC12)**

