Standards for the European Natural Gas Infrastructure

Inogate Standardization Seminar

KIEV, 22\textsuperscript{nd} and 23\textsuperscript{rd} of November 2010
Introduction

PROVIDING INFORMATION ON THE TECHNICAL STANDARDS DEVELOPED AND APPLIED BY THE EUROPEAN NATURAL GAS TRANSMISSION INDUSTRY

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CEN/TC234 Gas Infrastructure

SCOPE

STANDARDIZATION OF FUNCTIONAL REQUIREMENTS IN THE FIELD OF GAS INFRASTRUCTURE FROM THE INPUT OF GAS INTO THE ONSHORE TRANSMISSION NETWORK UP TO THE INLET CONNECTION OF THE GAS APPLIANCES
CEN/TC234
24 participating member states
CEN/TC234
Organization chart

WG 1
INSTALLATION PIPEWORK IN BUILDINGS
MOP < 5 bar  EN 1775

WG 2
PIPELINES MOP < 16 bar
EN 12007 1 – 4; EN 12327; TS 15399

WG 3
PIPELINES MOP > 16 bar
EN 1594; EN 12732; TS 15173; TS 15174

WG 4
UNDERGROUND GAS STORAGE
EN 1918 1 - 5

WG 5
GAS METERING
EN 1776

WG 6
PRESSURE REGULATION
EN12186; EN 12279

WG 7
COMPRESSOR STATIONS
EN12583

WG 8
INDUSTRIAL INSTALLATION PIPEWORK
OP>0,5 bar   EN 15001 part 1 and 2

WG 9
INJECTION OF NON-CONVENTIONAL GASES INTO GAS NETWORKS

WG 10
SERVICE LINES
CEN/TC234 WG3 members

- Austria
- Belgium
- Czech Republic
- Germany
- France
- Greece
- Ireland
- Italy
- The Netherlands (Convenor)
- Norway
- Portugal
- Spain
- Sweden
- Switzerland
- Ukraine
- United Kingdom

Ukraine representative:
Mr. Maksym O. Karpash
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<th>ISO</th>
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European Gas Network Code

- network security and reliability rules;
- network connection rules;
- third party access rules;
- data exchange and settlement rules;
- interoperability rules;
- operational procedures in an emergency;
- capacity allocation and congestion management rules;
- rules for trading related to technical and operational provision of network access services and system balancing;
- transparency rules;
- balancing rules including network related rules on nominations procedure, rules for imbalance charges and rules for operational balancing between TSOs’ systems;
- rules regarding harmonised transmission tariff structures;
- energy efficiency regarding gas networks
Standardization Bodies - Relationships

International
- ISO / IEC

Regional
- GOST (Russia + GUS)
- CEN / CENELEC
- ARSO (Africa)

National
- CS (Canada)
- ANSI (USA)
- AS (Australia)
- BSI, DIN, NF, NEN, ON, SN, UNE, UNI, .. (27)

Industry
- API
- ASME
- OGP
- MARCOGAZ

Companies
- OPERATORS
- CONTRACTORS
- SUPPLIERS
- MANUFACTURERS

Liaison with ISO
Liaison with CEN

Vienna Agreement
CEN ↔ ISO
Standardization leads to

- **Reduction of project costs**
  - Less complexity
  - Less time needed for the design and construction
  - Contractors are familiar with the construction methods
  - Lower product costs

- **Reduction of maintenance costs**
  - Improved manageability
  - Less spare parts in stock
  - Familiar with techniques and components
  - Less education and training

- **Safety**
  - Reducing HSE risks

- **Efficiency**
  - A shorter project turnaround

- **Reliability**
  - Proven technology
    - Predictable
    - Reproducible
A functional standard in the „gas industry“ describes...

- **Related to Safety Management:**
  - Design
  - Choice of materials by product standards
  - Construction
  - Testing and commissioning

- **Related to Integrity Management:**
  - Operation and maintenance
  - Safeguarding external interference

- Aiming at the **Safe** and **Reliable** delivery of gas
Legal position EN standards

- EN standards are:
  - **Voluntary** in application
  - Established by the **stakeholders**
  - Reflecting “best practices” for **safety and reliability**
  - Reflecting **consensus**

- Application is voluntarily unless the National Government has designated a standard mandatory

- EN Directives are mandatory (new approach). Each Member State is obliged to implement a Directive into the National Legislation

- **Harmonized standards** are voluntary to apply ... unless the National Government has designated a standard mandatory

- Manufacturers and contractors following harmonized standards are entitled to declare presumption of conformity (CE marking) without additional risk analysis
External standards as a strategic tool

- To demonstrate the ‘Self responsibility’ attitude of the European gas transmission system operators (TSO)

- To demonstrate the installation is designed and constructed based on widely accepted functional and safety requirements and “best practices”

- To reduce the content of company specifications to only additional requirements

- With respect to Safety Management the use of external standards as a basis for the internal standardization and technical specifications is evident
Any questions?

Thank you for your attention

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