

ADOPTION OF INTERNATIONAL STANDARDS AROUND THE GLOBE

Gilles Trican, KL, February 2009



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API STANDARDS ARE IMPORTANT

- ▶ The first modern standards published for the Oil Industry were the API standards in the 1920's.
- ▶ As of today, approx. 500 standards are maintained in the API collection.
- ▶ When ISO/TC 67 was re-activated, most of its projects were based on existing API standards.
- ▶ A number of projects are worked jointly, or in parallel, to become Global Standards.

EXAMPLE : API 521

- ▶ API 521 is *the* Recommended Practice that has been used by Industry worldwide for many years. Latest edition (4th) was published in 1997.

A 5th edition was then drafted by an API Task Force within API-CRE (Committee on Refinery Equipment).

Status as of early 2004 :

- ▶ Many new pressure-relieving challenges involving development projects on very large scale in a number of countries.
- ▶ Although the Task Force of RP-521 had good attendance of industry experts and was progressing on the draft, it was felt that more global expertise was needed.

COLLABORATION

- ▶ At the suggestion of API-CRE, an harmonized process is initiated during the May 2004 meeting of **ISO/TC 67/ SC6** : While API Task-Force RP-521 will finalize the draft of the 5th edition of API 521, an ISO Work Group (WG) will be initiated to work on further documents. After preliminary discussions, experts from various companies including : engineering, suppliers, contractors, operators, are ready to work on a new standard for 'pressure-relieving and depressuring systems'.
- ▶ A 'New Work Item Proposal' (ISO/NWIP) is drafted by the USA in June 2004 and circulated to the relevant Sub-Committee SC6 : It includes title, scope of work, justification, resource requirements, target dates and references. A future Project Leader is identified.
- ▶ This proposal is voted upon, and it becomes an 'Approved Work Item' (AWI) in October 2004. Experts from all interested parties are officially invited to join the Working Group (WG) for a first meeting.

IMPROVING AND BUILDING CONSENSUS

Several meetings of the WG are called by the Project Leader, and all topics are reviewed : *For example some experts express serious concerns regarding the difficulty to master a new instrumented approach called 'High Integrity Protection Systems' (HIPS) completely different from a traditional approach with relief valves and flares.*

At the suggestion of the WG, a new 'HIPS' appendix is added to the document.

- ▶ The Draft is continuously updated by the Project Leader, and input from various experts included in the text after discussions.
- ▶ By November 2004, consensus between the experts participating in the working group is achieved. The Draft prepared by the Project Leader can then be balloted, and can follow ISO balloting rules for DIS and FDIS.

PUBLISHED AS ISO 23251 / BACK ADOPTED AS API 521

INTERNATIONAL
STANDARD

ISO
23251

First edition
2006-08-15

**Petroleum, petrochemical and natural gas
industries — Pressure-relieving and
depressuring systems**

*Industries du pétrole, de la pétrochimie et du gaz naturel — Systèmes
de dépressurisation et de protection contre les surpressions*



Reference number
ISO 23251:2006(E)

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ADOPTION IN EUROPE BY CEN

- ▶ CEN/TC 12 is the mirror technical committee of ISO/TC 67.
- ▶ Most of the standards in TC 12 collection are adopted from ISO/TC 67.
- ▶ In accordance with the “VIENNA AGREEMENT” between ISO and CEN, two routes are possible :
 - Parallel approval, during the entire process, from NWIP to final vote
 - Adoption of an existing ISO standard.

This works very efficiently, and 90% of ISO/TC 67 standards are in CEN/TC 12 collection, which means they are adopted in 30 countries.

ADOPTION BY OTHER REGIONAL ORGANISATIONS

- ▶ In the Gulf region, a regional standardisation body including 6 countries was created : GSO.
- ▶ The relevant technical committee, GSO/TC 7 has already adopted 46 standards from TC 67, as well as 16 standards from ISO/TC 193 and 43 standards from ISO/TC 28.

ADOPTION BY COUNTRIES

► We could mention for example :

- BRAZIL
- KAZAKHSTAN
- RUSSIA
- CHINA

where adoption of ISO standards is very active.

SUMMARY

ISO	CEN	API	ISO/CEN TITLE
ISO 3183:2007		API 5L, 44 th edition / ISO 3183:2007 (modified)	PNGI -- Steel pipe for pipeline transportation systems
ISO 3977-5 : 2001	EN ISO 3977-5:2003		Gas turbines - Procurement - Part 5: Applications for Petroleum and natural gas industries
ISO TR 10400:2007		API TR 5C3, 6 th edition (ISO 10400:1993) (identical)	PNGI -- Equations and calculation for the properties of casing, tubing, drill pipe and line pipe used as casing or tubing
ISO 10405:2000	EN ISO 10405:2006		P&NGI – Care and use of casing and tubing
ISO 10407:1993 (Fast Track) (In revision as ISO 10407-1 & 2)	Revision in progress in CEN/TC 12 (prEN ISO 10407-1 & prEN ISO 10407-2)	API RP 7G (National Adoption under committee consideration)	P&NGI – Drilling and production equipment – Drill stem design and operating limits.
ISO 10407-2 : 2008	EN ISO 10407-2: 2008	API RP 7G-2 1st edition (National adoption under committee consideration)	Petroleum and natural gas industries - Rotary drilling equipment - Part 2: Inspection and classification of drill stem elements.
ISO 10414-1:2008	EN ISO 10414-1:2008	API RP 13B-1 3rd ed. / ISO 10414-1:2001 (modified)	P&NGI – Field testing of drilling fluids Part 1: Water-based fluids
ISO 10414-2:2002 (In revision)	Revision in progress in CEN/TC 12 (prEN ISO 10414-2) (WI-180)	API RP 13B– 2 4th edition	P&NGI – Field testing of drilling fluids Part 2: Oil-based fluids
ISO 10416:2008		API RP 13I 7 th edition / ISO 10416:2002 (modified)	P&NGI – Drilling fluids– Laboratory testing
ISO 10417:2004	EN ISO 10417:2004	API RP 14B 5 th edition / ISO 10417:2004	P&NGI – Subsurface safety valves systems – Design, installation, operation and redress.
ISO 10418:2003	EN ISO 10418:2003		P&NGI - Offshore production installations – Analysis design, installation and testing of basic surface process safety systems
ISO 10423:2003 (In revision)	EN ISO 10423: 2004 In revision (WI193)	API Spec 6A 19th edition/ ISO 10423:2003 (modified)	P&NGI – Drilling and production equipment – Wellhead and Christmas trees equipment
ISO 10424-1:2004	EN ISO 10424-1:2004	API Spec 7-1 1 st ed. / ISO 10424-1:2004 (modified)	P&NGI – Rotary drilling equipment – Part 1: Rotary Drill stem elements.

CONCLUSION

- ▶ A good collaboration is very important, first when making a global standard, and then when adopting it in relevant collections.
- ▶ Global standards are available to be used by all.

Thank you for your attention