100 Years of the BPVC

May 12, 2014
National Board General Session
Bellevue, Washington

MADIHA EL MEHELMY KOTB
ASME PRESIDENT
1865, Steamboat Sultana—twin boilers exploded

1905, R. B. Grover & Company Shoe Factory

Converging Histories

- 1884 ★ First ASME performance test code for the conduct of trials of steam boilers
- 1889 ★ American Boiler Manufacturers Association (ABMA) formed
- 1914 ★ ASME Boiler Code
- 1916 ★ ASME certification for boilers begun in US and Canada
- 1918 ★ American Engineering Standards Committee (later, ANSI)
- 1918-20 ★ Canadian Inter-Provincial Code for the Construction and Inspection of Steam Boilers, Unfired Pressure Vessels and Machinery
- 1919 ★ National Board of Boiler and Pressure Vessel Inspectors
Safety and Reliability through Standards

Boiler Explosion Trends in United States

1 ASME/Statistics from the National Board of Boiler and Pressure Vessel Inspectors
ASME Today —

- More than 500 Standards
- Recognized and accepted in more than 100 nations

- Growing percentage of committee volunteers reside outside of USA — originating from 52 countries
- ASME administers over 40 US Technical Advisory Groups to ISO
- 7,000 certified companies in 75 countries (more than half non-U.S.)
- 200 professional development courses (many standards based)
Making a Difference

Engineers —

• Use resources wisely
• Make energy, manufacturing, transportation, and sustainable infrastructure development safer
• Advocate for and implement response strategies
• Expand socio-political dialogue
• Build public trust in engineering solutions
Global Trends

• Energy more widely traded
  – LNG, oil, refined products, coal
• Energy technology more widely dispersed and more rapidly adopted
• Engineering more widely practiced and shared
• ASME standards and certification more international
Coming Up to Date — Globally

- 1972 ► Certification offered internationally as part of a consent decree
- 2000-2002 ► C&S Connect (online balloting and tracking)
- 2007 ► ISO TC11 Standard 16528 on Boilers and Pressure Vessels published
- 2014 ► ASME’s largest program with 7,000 certified companies in 75 countries
- Transitioning from 30 ASME product certification marks to a single mark
How do we look?

• Leading standards across an array of industries throughout the world
• Licensed translations of ASME standards by others in Chinese, French, Japanese, Korean, & Portuguese
• Growing portfolio of Spanish language versions for key standards (BPV, pipelines, elevators, etc.)
• Recent references in national regulations of: India - Nigeria - South Africa – Colombia
• Normative references to ASME Standards in ISO Standards
• International Working Groups with key organizations in China, South Korea, India and Europe on nuclear BPV Code and in India on piping codes
World Trade Organization

“Committee Decision on Principles for the Development of International Standards” (2008)

Transparency
Openness
Impartiality and Consensus
Effectiveness and Relevance
Coherence
Development Dimension

Implication: Confirmed that standards developed by ASME are eligible to be considered as international standards
ASME Strategic Priorities / Standards

Conformity Assessment
Global growth and new certification programs

Global Impact

Workforce

Energy

Training +

Global development needs

Standards
New technologies/ energy/ + / technical relevancy
Emerging Technologies

• Energy Assessments
• Hydrogen Infrastructure
• Concentrated Solar Power Plants
• Ultra-supercritical Boilers
• Nuclear Gen III+ and Small Modular Reactors
• Plant Performance with Carbon Capture
Global Trends: Manufacturing & Product Certification

Number of Manufacturers with ASME Boiler and Pressure Vessel and Nuclear Certifications in China and India

Number of Manufacturers with ASME Boiler and Pressure Vessel and Nuclear Certifications
• Energy / electricity for billions
• Clean water & sanitation
• Sustainable, greener development
• Cities, bigger, more complex and smarter
• Greater mobility
• More diversity in the workforce, in economic drivers
Will technology better the world?

40% doubt

An issue of public trust?

Pew Research Center survey, 2014
Grazie
谢谢
Merci
Obrigado
ありがとうございます
 شكرا
Gracias
Thank you