



Standards and Certification Training

Module B – Process

B8. ASME International Standards Development

Module B Course Outline

- B1. ASME Organizational Structure
- B2. Standards Development: Staff and Volunteer Roles and Responsibilities
- B3. Conformity Assessment: Staff and Volunteer Roles and Responsibilities
- B4. Initiating and Terminating Standards Projects
- B5. Consensus Process for Standards Development
 - B5a. Project Management
- B6. The Basics of Parliamentary Procedure
- B7. The Appeals Process
-  **B8. International Standards Development**
 - B8a. US TAG to ISO Standards Development
- B9. ASME Conformity Assessment Programs
- B10. Performance Based Standards
- B11. Standards Inquiries, Interpretations and Cases

REVISIONS

DATE	CHANGE
9/13/24	Updated to align to Rev. 19 of Operating Procedures for ASME Codes and Standards Development Committees
6/8/23	Changed to align with Rev. 19 of ANSI accredited procedures. Updated to use consistent wording and updated referenced documents.
6/13/16	Reformatted entirely and revised or added notes throughout. Deleted Pop Quizzes and revised presentation to reflect current ASME policy. Moved all items related to U.S. TAGs and ISO standards process to Module B8a.
11/22/10	Changed “Codes and Standards Board of Directors” to “Council on Standards and Certification” throughout.

LEARNING OBJECTIVES

At the end of this module you will know...

- What makes a Standard International
- The process by which ASME Standards are developed meet the WTO TBT principles for international standards development
- How to incorporate references to ASME standards in other international SDO and ISO documents

AGENDA

- I. ASME International Standards
- II. International Participation in ASME Standards Development Process
- III. Other Methods of Developing ASME International Standards

I. ASME International Standards

WHAT MAKES A STANDARD “INTERNATIONAL”?

- Criteria
 - A development process characterized by openness, transparency, impartiality and consensus, effectiveness and relevance, coherence and development dimension (WTO principles)
 - A record of success in meeting or a potential to meet global marketplace and public safety needs
 - International participation in the standards development process

INTERNATIONAL STANDARDIZATION

- ASME develops standards intended to meet needs of industries and governments on global basis.
- ASME standards developed under process that meets WTO principles for international standards development.
- To address global relevance, an ASME committee may take various approaches, including:
 - Development of performance based and prescriptive standards as means of compliance with regulations or essential safety requirements;
 - Normative or informative references to non-ASME international, regional, or national standards; and
 - Encouragement of international participation in the standards development

ASME INTERNATIONAL STANDARDS

- Examples of ASME codes and standards in international use:
 - Boiler and Pressure Vessel Code (over 100 countries)
 - B31 Piping Codes
 - B16 Standards on Valves, Flanges, Fittings and Gaskets
 - Bioprocessing Equipment Standard
 - Y14 Engineering Product Definition and Related Documentation Practices

II. INTERNATIONAL PARTICIPATION IN ASME STANDARDS DEVELOPMENT PROCESS

INTERNATIONAL PARTICIPATION IN ASME STANDARDS DEVELOPMENT

- International participation enhances international acceptance and use
- Membership is open to all qualified individuals
- Additional membership options:
 - Delegates
 - International Working Groups (IWG)
 - Interest Review Groups (IRG)

DELEGATES

- Delegate position on ASME Committees
 - Represents recognized group of interested parties (e.g., individuals from a jurisdiction, professional society, trade organization, users group)
 - Represented group reviews/comments on work of committee or submits proposals
 - Group works in own country, in native language.
 - Delegate on a standards committee has first consideration voting privilege on standards actions.

INTERNATIONAL WORKING GROUPS (IWGs)

- Accommodates participation by members volunteers in a common geographic location who would otherwise be unable to meet the attendance expectations of ASME standards committees.
- IWGs operate as subordinate groups but,
 - IWGs are populated by virtue of a common geographic location
 - IWGs typically conduct all of their meetings outside of the U.S. and Canada
 - IWGs may choose to conduct their meetings in a language other than English

BENEFITS OF IWGs

- IWGs provide additional subordinate technical resources to standards committees.
- Offers global stakeholders a forum to discuss ASME standards issues and experiences.
- Active participation by IWGs will help to improve the usability and acceptance of the ASME standards around the world.
- Participation may strengthen IWG members' individual and collective understanding of ASME standards requirements.

IWG MEMBERSHIP

- All typical privileges and benefits of participation as a standards committee subordinate group.
 - CS-Connect accounts and volunteer access.
 - Vote on IWG proposals and administrative matters.
 - Opportunity to provide comments when the IWG is included in “Review & Comment” distributions.

INTEREST/INTERNATIONAL REVIEW GROUPS

- Subordinate group under the standards committee
- All typical privileges and benefits of participation as a standards committee subordinate group.
 - CS-Connect accounts and volunteer access.
 - Opportunity to provide comments on first consideration standards committee ballots when included in “Review & Comment” distributions.

III. Other Methods of Developing ASME International Standards

ASME International Standards

- Normative References to ASME Standards
- Joint Development of ASME Standards
- U.S. National Adoption of ISO Standards

NORMATIVE REFERENCES TO ASME DOCUMENTS

- Approach
 - Incorporate normative reference to ASME Standard in international Standards Development Organization (SDO) Standards
- Example
 - B31.3 Process Piping Code referenced in ISO 15649:2001, Petroleum and natural gas industries – Piping
- Advantages
 - Maintain control of technical content
 - No need to exert the potentially extensive effort in creating new standard
 - Users can continue to use familiar requirements

JOINT DEVELOPMENT OF STANDARDS

- Rationale
 - Make the ASME standard more internationally recognized
- Requirements
 - Obtain approval from
 - Consensus Committee
 - Supervisory Board
 - Council on Standards and Certification
 - Framework Agreement is developed between organization and ASME on the approval process, maintenance, publication, and copyright
 - Draft is concurrently approved by the ASME and SDO committees under their respective procedures or jointly developed procedures

JOINT DEVELOPMENT OF STANDARDS

- Examples:
 - API 579-1/ASME FFS-1- Fitness-for Service
 - ASME A17.1/CSA B44-13 - Safety Code for Elevators and Escalators
 - ASME A112.4.2/CSA B45.16 - Personal Hygiene Devices for Water Closets
 - ASME/ANS RA-S - Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications
 - ISO/ASME 14414 - Pump system energy assessment
 - Joint ACI-ASME Committee on Concrete Components for Nuclear Service

U.S. NATIONAL ADOPTION

- Definition- Adoption of ISO standard as American National standard
- Procedure
 - Process ISO standard in accordance with
 - ANSI procedures for
 - Identical adoption (and expedited approval), or
 - Modified adoption
 - ASME procedures require approval by appropriate Board and Council on Standards and Certification based on a business case provided by proponents for the action.

MODULE SUMMARY

- ASME standards meet the requirements for international standards by following procedures that meet WTO requirements, offering a wide range of ways in which international members may participate and allowing use of normative references to other international standards.
- ASME committee membership is open to qualified individuals from all countries. In addition, ASME has created a few further options to encourage international membership on committees such as; delegate memberships, interest review groups, and international working groups.

REFERENCES

- S&C Department Operation Guides
- Codes and Standards Policy CSP-4, International Standardization

<https://cstools.asme.org/csconnect/CommitteePages.cfm?Committee=L01000000&Action=7609>