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U.S. House of Representatives Committee on Small Business
Testimony of the American Society of Mechanical Engineers (ASME)
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November 1, 2007

Good morning, it is my pleasure to provide testimony at this morning's hearing of the U.S. House of Representatives Committee on Small Business. This morning, I will focus on Standards – technical consensus standards – their impact on trade and more specifically their impact on small and medium size enterprises. Of importance, within the context of trade agreements, is the language that is used when addressing international standards and their implementation through regulatory adoption.

My name is June Ling. I am Associate Executive Director, Codes and Standards for the American Society of Mechanical Engineers – ASME. Founded in 1880, ASME is a not-for-profit professional organization promoting the art, science and practice of mechanical and multidisciplinary engineering and allied sciences. ASME develops standards that enhance public safety, and provides lifelong learning and technical exchange opportunities benefiting the engineering and technology community.

What is a Standard?

What is a Standard, what is a technical consensus standard? In a broad sense, it can be any set of rules or guidelines which, when applied by many and any, achieves a common objective – whether that objective be a common baseline for public safety (from toys to home heating boilers to operating nuclear power plants); use of new technological advances; or interchangeability and interconnectivity of products and services. It is the principles and characteristics of standards development and a standard's reach within a nation's economy and infrastructure, and the global economy, that determines their impact on small and medium size enterprises (SMEs).

For over 100 years, ASME has developed technical consensus standards which, when are referenced by State and local laws and federal regulations to meet public safety needs, become mandatory requirements. ASME standards began when states, manufacturers, and the insurance industry came to ASME during the industrial revolution to solve the problems of increasing explosions of boilers and pressure vessels, public safety concerns, property and casualty losses, and the growing complexities of meeting divergent state technical regulations. In parallel with providing a framework for all interested parties to meet and reach consensus on technical standards, the standards development process enabled all interests – of any size – to participate on an open, transparent, and equal basis

Level Playing Field
At the end of the process, technical consensus standards provide a level playing field for SMEs to compete in the market. By providing a set of common criteria established and accepted by a broad base of knowledgeable and involved parties, a small business gains the benefit of being able to enter and compete in a market on the same basis as larger entities by following the publicly available and generally accepted rules of standards.

ASME also conducts product and personnel certification conformity assessment programs for manufacturers, organizations, and people who meet the technical specifications and criteria established through ASME standards. ASME certifies over 3000 U.S. manufacturers of pressure equipment; most are small and medium size enterprises that face the challenges of competing in a global environment. These manufactures demonstrate the ability to comply with the quality and technical requirements set forth by ASME standards, and are then certified by ASME. By having its standards and marks accepted in over 100 countries throughout the world, ASME assists these enterprises in exporting their products to other nations.

Technology Transfer
During the process of standards development, new technological advances are continuously considered and incorporated, and through standards such advances are effectively transferred to all users on an open and equal basis. Today, the United States enjoys a well established and vigorous process for development of technical consensus standards by the private sector, in partnership with government. Through standards, ASME and a host of other standards developing organizations, continue to provide the benefits of technology transfer among industry, government, and ultimately the public.

Hearing - U.S. House of Representative Committee on Small Business
So what do Standards have to do with the scope of the hearing today?

U.S. industry, including and especially small and medium sized enterprises, rely on standards such as those developed by ASME and rely on their acceptance by relevant governmental and regulatory agencies both here in the US and abroad. In many cases the importance of acceptance by other nations may not be apparent to a manufacturer, i.e. while their first tier purchaser may be domestic, their product could be incorporated into products that serve both a domestic and international market. As such, this small business may not fully realize the ramifications of ongoing changes and trends until late in the process.

This was true for the compressor industry. These SMEs were supplying compressors for tractors, and were caught by surprise when the European Commission (EC) simple pressure vessel directive was put into force and tractor manufacturers began imposing compliance with an unknown set of technical requirements. These manufacturers had been using ASME standards that resulted in high integrity pressure vessels, but were faced with a new set of technical requirements. The EC standard raised a non-tariff trade barrier that added cost without commensurate benefits.

Public-Private Partnership
For decades, the U.S. has reaped the benefits of an effective public-private partnership. The consensus standards process is a prime example of the most rapid market and technically relevant process in the world for disseminating and implementation of technology advancements.

This partnership has become ever more important in ensuring US competitiveness in a global market. The United States Trade Representative (USTR) and Department of Commerce have actively worked in concert with the private sector, including the standards developing community, to safeguard U.S. interests through ensuring international standards used by U.S. enterprises are not unfairly blocked.

Free trade agreements, and text regarding standards, are central to ensuring small and medium size businesses are able to export goods.

Export Trade Promotion

A few years ago, ASME and three other organizations formed a consortium and opened an office in Beijing, China using Manufacturing Development Cooperative Program grant money provided by the Department of Commerce, International Trade Administration (ITA). With Commerce ITA's support, and their engagement on a government to government basis, this consortium of four organizations (ASME, ASTM International, American Petroleum Institute, and CSA America) successfully gained greater understanding and use of their international standards in China, which in turn facilitated greater acceptance of products and technology produced to these standards. The support and assistance of Commerce ITA, including its standards attaches and foreign commercial services, have proven invaluable in advancing U.S. standards and thus market access for small businesses in other nations.

WTO Technical Barriers to Trade Agreement (TBT)

Under the WTO Technical Barriers to Trade Agreement, signatory nations are obligated to provide preferential treatment to relevant international standards; as such, how international standards are defined became a major item of debate. A significant milestone occurred during the second triennial review of the TBT Agreement. At that time there was an effort by other nations to define international standards within the context of the TBT Agreement as limited to standards developed by organizations whose structures consist of national member bodies (ie. Countries). Under this interpretation, the open membership of U.S. domiciled international standard development organizations (SDO's) would not qualify and the products made in the US that are engineered to meet international standards developed by U.S. domiciled SDOs would effectively be restrained from trade.

The U.S., through the strong and able efforts of the USTR, with support from Commerce and the private sector, prevented this threat through sustained efforts which led to the decision of the TBT Committee not to specify organizations developing international standards but rather to define the principles for international standards development (Decision of the Committee on Principles for the Development of International Standards, Guides and Recommendations with Relation to Articles 2, 5 and Annex 3 of the Agreement.) that any standards developer could follow.

These principles of transparency, openness, impartiality and consensus, effectiveness and relevance, coherence, and development dimension are met by ASME and other U.S. domiciled standards organizations.

In national member based standards organizations, the U.S. has one vote compared to numerous votes of economic regions such as the European Union. In setting standards, this rigid voting system enables, for whatever reasons, one regional economy and its industrial interests to dominate the setting of technical specifications for all. ASME has had experiences with this inequity, and through sustained efforts among the standards community, affected industries and the U.S. Dept. of Commerce, was able to prevent exclusion of

U.S. technology in international standards being set by ISO (International Organization for Standardization) based in Geneva. This imbalance will continue; and the value of utilizing a national based member body system for highly technical standards development remains questionable.

It is important that the U.S. remain vigilant to attempts to unduly disadvantage U.S. enterprises through restriction on use of U.S. based international standards developed by U.S. domiciled standards developers. We need to ensure that any text within the trade agreements which address international standards is inclusive of those standards utilized by U.S entities and government. One means to achieve this goal is to reference the principals of international standards development which were established by the WTO TBT committee, rather than singling out an organization simply because of their national member body structure.

Conformity Assessment

In addition to international standards, treatment of conformity assessment in the WTO Technical Barriers to Trade Agreement and implementing text in free trade agreements can add to the complexity of fair and open access to markets. Also, the blurring of geographic market boundaries and supply chains increases the need to ensure that market and technical relevance are considered. Once standards and conformity assessment are set for the global market and community, these will be the same standards and conformity assessment requirements with which SMEs will need to comply.

Conclusion:

In conclusion, standards and related conformity assessment are an underpinning of US competitiveness and trade promotion. In a sense, they carry greater impact for small businesses as small businesses do not have the resources for independent research nor participation in international standards activities.

Effective export trade promotion would not be achievable without continued acceptance of use of international standards, many of which are developed and maintained by U.S. domiciled standards organizations.

Recommendation:

Support inclusion of appropriate text within trade agreements regarding use of international standards and regulatory adoption of such standards.

ASME

ASME is the premier organization for promoting the art, science and practice of mechanical engineering throughout the world. The Society is incorporated as a not-for-profit educational and technical organization and serves a worldwide membership of 120,000.

ASME's mission is to promote and enhance the technical competency and professional well being of its members and, through quality programs and activities in mechanical engineering, better enable its practitioners to contribute to the well-being of humankind.

ASME conducts one of the world's largest technical publishing operations, holds numerous technical conferences and hundreds of professional development courses each year. As a pioneer in the development of codes, standards and related conformity assessment programs, ASME aims to enhance reliability as well as industrial, manufacturing and public safety.

The strength of ASME is reflected in its core assets – knowledge, community and advocacy – and is carried out through its strategic focus on key markets, including young engineers, industry, government, globalization and new product development.

ASME remains technically connected to breakthrough technologies such as bioengineering, nanotechnology, and micro-electro-mechanical-systems, while constantly contributing to the education and professional development of existing fields including pressure technology, energy, gas turbine and off-shore technology, manufacturing and design engineering and more.

For over 125 years, ASME has been *Setting the Standard* in engineering excellence.