



Global Standards Pioneer for a Dynamic & Innovative Korea

KATS Newsletter

Korea Agency for Technology & Standards, Ministry of Commerce, Industry & Energy November 31, 2006

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Facilitating Global Cooperation

Standards Policy Lessons for Vietnam

Eight Vietnamese officials from the nation's technology and standards agency visited Korea October 30~November 3 to learn Korea's national standards policy and TBT (Technical Barrier to Trade) response system establishment and operating practices at KATS.



This training plan was realized at the request of the Vietnamese government ahead of the nation's WTO entry in November after expressing its desire to learn from Korea's experience and know-how in composing and operating WTO's TBT response-related domestic organizations to a Korean government delegation that participated in the ISO general assembly held in September this year.

The main content of the training program consisted of lectures and discussions on system establishment and implementation of national standards policy; establishment and operation of TBT response systems; measures to cope with technical restrictions; TBT response practices by private business communities, etc.

● TBT Training Program for Vietnamese Gov't Officials

Date	Content of Lectures, Education, etc.
October 30 (Mon)	<ul style="list-style-type: none"> ● Establishment and Implementation of National Standards Policy ● KS Certification System and National Certification Integration Plan ● Standardization Education
October 31 (Tue)	<ul style="list-style-type: none"> ● Overview of WTO TBT Agreement ● Preparation of Participation in WTO TBT Committee and Response Measures ● Safety Management System for Electrical and Industrial Products
November 1 (Wed)	<ul style="list-style-type: none"> ● Korea's Experience in Implementation of WTO TBT Agreement ● TBT Notification Procedures and Operation of an Official Inquiry Center ● Responses to TBT Utilizing IT
November 2 (Thu)	<ul style="list-style-type: none"> ● Field Visits to LG Electronics and Korea Testing Laboratory (KTL)
November 3 (Fri)	<ul style="list-style-type: none"> ● TBT-Response Practices Related to Agricultural/Fishery Products, Foods and Pharmaceuticals (Ministry of Agriculture and Forestry, Ministry of Maritime Affairs and Fisheries, Korea Food & Drug Administration) ● Participation in '2006 Standards Day' Events



Demanders to Participate in Development of Nat'l Standards

The government has opened the way for demanders of standards, enterprises, consumers, etc. to participate in the development of Korean Industrial Standards (KS) systematically. With this measure, the previous top-down-style national standards development method is expected to be converted into a demander-centered bottom-up-style method.

In an effort to cope effectively with gradually diversifying standardization demands, KATS has decided to introduce a 'Partner Standards Developing Organization (PSDO) Designation System' and has published operating guidelines. This is a system designating corporations or organizations that have capabilities to develop KS drafts through voluntary consensus of diverse interest parties by specialized field.

For successful settlement of the system, KATS plans to promote 'KS Development Project' this year, designed to select tasks requiring urgent development of national standards and to comprehensively support development expenses, specialized manpower and proposals for international standards.

To acquire designation of a PSDO, a corporation or an organization needs to have actively joined the KS Development Project and also filed more than three applications for KS within the recent five years. Once designated, the PSDO will be fostered into a private standardization foothold, while receiving various kinds of benefits, including support for necessary funds in developing KS standards.

In the future, the government plans to promote development of national standards in the public sector, safety, welfare, etc., and nurture and utilize the standards development cooperation agencies strategically for the development of national standards in the fields required by enterprises and particularly by SMEs.

Director Shin Il-Seop of the Standards Technology Planning Team, KATS, expressed his expectation, "By actively utilizing private standardization capabilities, the nation will be able to respond efficiently to ever-diversifying standardization demands and rapid technology development."

Vision & Basic Direction of KATS

Basically, the KATS innovation program is focused on client-oriented value creation, which paves the way for KATS to become the Global Best Standards organization.

The KATS innovation initiatives consist of four major roadmaps: establishment of the national standards system to support the creation of market value; operation of the product safety management system leading to a higher quality of life; support for national technology innovation based on standardized technology; and activation of the global standards movement to respond to changes in the global environment.

Vision

Global Best Standards Organization

Objectives

- Enhance the nation's trade-industry competitiveness through technology innovation and standards
- Foster safer and wealthier environment for all citizens

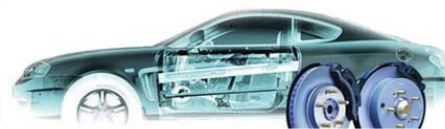
Roadmap

- Establishment of Advanced National Standards Systems
- Operation of Product Safety Management System
- Support for National Technology Innovation
- Activation of Global Standards Movement



Quality Certification for Remanufactured Auto Parts

Regarding remanufactured automotive parts being sold in the market, KATS decided to promote implementation of a quality certification starting in January 2007. ‘Remanufacturing’ is defined as the re-making of used products after recovery into goods having nearly identical quality as new products after such processes as disassembly, cleaning, inspection, component replacement/adjustment and re-assembly.



Since remanufacturing has significant energy and resource conservation effects, globally about 50 items, automotive parts, copy machines, printing machines, one-time-use cameras, etc., are being remanufactured.

The annual turnover of about 73,000 remanufactured firms in the United States reaches US\$53 billion and most of the world-renowned carmakers are operating remanufacturing lines.

With promotion of this system, meanwhile, KATS plans to expand the range of items for quality certification to electrical and electronic automotive parts, including constant velocity joints and air-conditioning compressors. Therefore, KATS expects the domestic remanufacturing market grow to the 1.2 trillion won level from about 320 billion won at present.

● Market Growth Projections of Remanufactured Products by Item

(Unit: 100 million won)

Item	Total Market	Present Remfg. Market	Future Remfg. Market	Production Cost Saving
Automotive Parts	40,000	2,400	9,600	4,754
Electrical Equipment	131,000	-	1,300	654
Machinery	36,000	-	360	177
Office Furniture	8,588	-	858	399
Toner Cartridge	3,500	870	525	289
Total	219,088	3,270	12,643	6,273

New Tech Product Identification and Support Project for SMEs

KATS has decided to expand the present ‘LABCON Plan’ as well as to promote a new ‘N-LABCON Plan,’ designed to identify SME-developed new tech products having the possibility of early commercialization and to support these to become first-class products with export competitiveness.

● Improvement Direction

(Unit: 100 million won)

Category	Present LABCON Plan	Improved N-LABCON Plan
Identification	Notice in Newspaper	<ul style="list-style-type: none"> • Identify successful R&D products • Identify products recommended by business sector • Notice in newspaper
Tech Support	Simple support (2 weeks)	<ul style="list-style-type: none"> • In-depth support (6 months-one year) • Short-term support (one month)
Assessment	Apply NEP certificate regulations collectively	<ul style="list-style-type: none"> • Rapid certification for successful R&D products, etc. • Apply NEP certificate regulations
Sales Channel Support	Accelerate purchases by public organizations	<ul style="list-style-type: none"> • Prepare measures to accelerate purchases by private enterprises • Accelerate purchases by public organizations

※NEP: New Excellent Product

APEC Members to Learn Standards with Korea's Education Materials

The Korea-proposed 'APEC Standards Education Project' was finally approved at the APEC Budget and Management Committee (BMC) held October 10~12. As a result, students, businessmen and public officials of 21 APEC member nations are expected to study standards with Korea's education materials starting in 2008.

For this, Korea plans to develop education curriculum, texts, lecture manuals, etc. to be utilized commonly by APEC members through investigation and research of global standardization policies, strategies and practices from next year. Using the developed materials, in 2008 Korea also plans to conduct education directly in the APEC region.

The Ministry of Commerce, Industry and Energy (MOCIE) said, "Major advanced countries, the EU, the United States, Japan, etc., are promoting development of standards by including cultivation of standards experts in their national standards strategy."

"Promotion of APEC standards education will strengthen the network for standardization cooperation with member countries and also provide an opportunity to upgrade Korea's standards position in the region," the ministry added.

Standardization Training for ASEAN Gov't Officials

KATS conducted standardization training for 12 invited ASEAN government officials in charge of standards affairs from seven countries, including Vietnam, Myanmar and Laos, at Korea International Cooperation Agency (KOICA) in Seoul from October 9 to October 20.

Promoted and implemented with KOICA's cooperation, the two-week training program focused mainly on National Standardization Strategy; International Standardization Activity; Legal Weighing & Measurement; Conformity Assessment System; Technical Barriers to Trade (TBT); Responses to Environmental Technology Restrictions; and Six Sigma. The foreign trainees consisted mostly of director to director-general level government officials responsible for standards-related work at ministries of commerce and industry, science and technology, etc. In the training, they learned not only Korea's standardization policy but also discussed the standardization policies and development directions of respective countries and ways to cooperate among the participant nations for international standardization activities.



Korea-France Cooperation for Electric Power IT Standardization



Korea and France will cooperate in standardization of electric power IT industry to graft IT tech with traditional electric power industry. KATS plan to promote joint cooperation with UTE (Union Technique de l'electricite et de la Communiacion), France's representative organization at IEC for standardization of next-generation substation automation system, energy management system, etc.

Under the plan, KATS plans to prepare a momentum that can convert the existing copper-wire distribution system for communication and control into a next-generation substation system, fiber optic cable/ethernet communication method of global standards. For this, KATS organized a representative corps consisting of about 10 domestic electric IT experts from Korea Electric Power Corp. (KEPCO), Korea Electrotechnology Research Institute (KERI) and Korea Electric Power Data Network, etc. and prepared a venue to cooperate with UTE of France for the technology standards in the electric power IT field.

On September 4 this year, Korea and France held a 'Korea-France Electric Power IT Standardization Joint Workshop' in Paris, France, and about 25 related experts from the two countries participated and discussed future cooperation plans for the standardization of electric power IT.

Strengthening Safety Management of Substandard Imported Tires

KATS announced it would upgrade safety management of automotive tires to the level of advanced countries and root out distribution of substandard imported tires starting in March next year.

For 31 industrial products, including tires, KATS has thus far implemented a safety verification system that encourages enterprises themselves to manage those products in accordance with safety criteria. However, it has been pointed out that a lack of safety management for some of the items is threatening the safety of consumers.

Therefore, KATS revamped subordinate laws and ordinances in accordance with the Quality Management and Industrial Products Safety Management Act revised in December last year and plans to implement a ‘Self-regulatory Safety Confirmation System’ in March next year. The gist of this system is to enable the collection and disposal of substandard products that do not meet safety criteria.

Under the plan, KATS organized a safety fact-finding survey team and embarked on a thorough investigation of distribution status through safety function inspections of substandard tires or manufacturers and based on the analysis of import customs clearance data of the Korea Customs Service (KCS). After the investigation, the agency intends to make public those products found short of safety requirements in the media, etc. at the end of this year and minimize consumer damage.

Korea’s Scale Test Cert Acquires Global Recognition

KATS announced that effective October 20, 2006, Korea's test certificates for scales would be utilized internationally.

The global recognition of Korea’s scale certificate came as the nation signed the Mutual Acceptance Arrangement (MAA) and Declaration of Mutual Confidence (DoMC) at the conference of the International Committee of Legal Metrology (CIML) held in Cape Town, Republic of South Africa, October 18~20.

According to KATS, 15 countries, including Japan, France, Russia, China and Australia, participated in the signing and will utilize the scale test certificates issued by Korea.

MAA Signatories

- Issuing Countries (7): Issues own national test certificates and accommodates those issued by others nations - Korea, China, France, Japan, Australia, New Zealand and Slovakia
- Accepting Countries (8): Does not issue own certificates but accommodates those issued by other nations - U.K., Russia, Canada, Rep. of South Africa, Israel, Saudi Arabia, Bulgaria and Serbia

Since filing its application for MAA, Korea arranged overseas experts to conduct an appraisal of the testing capability of the nation’s testing institute in the field of scales, Korea Machinery Meter and Petrochemical Testing and Research Institute (MPI), and submitted a conformity report to the International Organization of Legal Metrology (OIML) for participation in the MAA.

With global recognition of Korea’s test certificates following the conclusion of the agreement, at the time of exports, domestic scale producers will be able to reduce testing expenses and shorten the testing period as well as avoid the hurdles of getting test certificates issued in the importing countries.

Export Results of Scales by Year

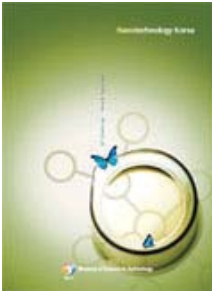
(Unit: US\$1 million)

Year	2004	2005	2006(*)	2007(*)
Export Amount	45	60	72	80

In the future, KATS plans to increase MAA items to tap water meters, gas (oline) meters, etc.

Note: Those for 2006 and 2007 are projected figures.

Korea's NSOM Measurement Method Adopted as ISO Standard



The NSOM (Near-field Scanning Optical Microscope) measurement method proposed by Korea in May this year for the first time in the world has been adopted as an ISO standard with unanimous approval by member countries of the organization as a result of its voting for three months.

In the past, there had been no uniform global standards for NSOM technology. So, every time measurements were made, major errors occurred, thereby becoming a stumbling block for application of the device to the nano industry. With adoption of the Korea-suggested standard, its utilization will be possible for single-cell-level analyses as well as for analyses of nano materials.

At present, Korea is the secretariat nation in the atomic force microscope (AFM) technology field and also holding the international chairmanship. Although it now ranks fourth in the world in nanotechnology, Korea is expected to take a successful first step toward the world No. 1 position in the nano standards field by developing the nano technology standard this time ahead of advanced countries.

The measurement method was developed through joint research by KATS and the University of Incheon. If NSOM, using light, is utilized, much more information compared with electronic microscope using electron as media or semiconductor can be obtained and development of optical semiconductors having a light speed also would be possible.

New Materials Assessment Tech as Global Standard

At the ninth plenary meeting of ISO/TC164 (Mechanical Testing of Metals) held in Seoul September 24~29, 2006, Korea suggested new materials assessment technology that supports safety inspections of steel structures through surface contact alone as a global standard.

As a new materials assessment method that applies a material indentation technique, the steel structure safety verification technology can diagnose whether a product is dangerous or not, using a hardness test that only contacts the welded parts of the steel. In Korea, Frontics Ltd. is manufacturing materials testing equipment having this new technology.

If the suggested technology is adopted as a new global standard, it will lead to the quality competitiveness enhancement of Korea's key industrial products as well as to enabling the nation's advance into a 700 billion won-scale overseas market in the future and to the creation of considerable industrial added value.

Materials testing equipment is divided largely into tensile strength (compression) testers, hardness testers, impact testers and fatigue testers with a global market estimated at about two trillion won.

KATS Certifies 32 NEPs in 3rd Qtr. '06

On October 26, KATS announced that in the third quarter of this year, it has issued NEP (New Excellent Product) certificates for 32 products that have superior functions and quality and high economic and technological ripple effects.

Most of the products certified this time are those that have been developed with Korea's first new technologies with related patent applications and registrations alone reaching 256.

The products closely related to daily life are:

- A car illegal parking/stop crackdown system adopting 'Modified Mixture of Gaussians,' a new type of image processing technique that can sense the presence of illegally parked/stopped vehicles in restricted areas and also can even identify vehicles with license plates hidden by other cars;
- High-efficiency fluorescent lamp reflection device that enhances lamp reflection efficiency and durability with developed white paint;
- Scan controller for electric signboard that has upgraded the resolution of existing LED boards more than four-fold through 60-frame high picture quality progressive scanning; and
- Air mattress for beds, mats and rescue equipment with excellent pressure-resistant and antibiotic functions and a completely flat surface.

As these NEP-certified products were designated as goods that public organizations, such as government ministries, local autonomous bodies and government-subordinated agencies, are required to buy more than 20% of total procurement under the Industrial Technology Innovation Promotion Act that went into effect on October 29. Meanwhile, KATS expects them to become 'vitamins' that will contribute significantly to the sales growth of related SMEs.

Promoting Standardization of GMO Detection Methods

Amid growing global controversies over safety recently, including Japan's ban on its import of U.S.-made genetically modified rice, KATS decided to standardize detection methods to determine whether GMOs are contained in imported foods.

According to ISAAA (International Service for the Acquisition of Agri-biotech Applications), the world's GMO grain cultivation area in 2005 was 90 million hectares, exceeding 10 times the land area of South Korea and up 11% from the previous year. The agency expects the area to increase by more than 10% this year as well.

In Korea, the Ministry of Agriculture & Forestry (MAF) and Korea Food & Drug Administration (KFDA) are implementing a 'Labeling System for GM Farm Products and GM Re-combined Foods,' respectively. However, only a 'Protein-Based Detection Method' is being used as a Korean industrial standard (KS) at present. Therefore, KATS plans to introduce four kinds of international standards, including 'Hexane Extraction Method,' and adopt them as KS standards.

When the GMO detection methods are standardized, the government can protect public health and safety from hazardous foods by providing accurate information on whether or not GMOs are contained, the percentage of content, etc. It will also be able to cope actively with a diversifying global trade environment in preparing for free trade negotiations with other countries, including the United States, in the agricultural field.

Standardizing Diesel Engine Exhaust Gas Measurement Method



KATS has started the process to enact 11 kinds of KS standards, including a construction machinery diesel engine exhaust gas measurement method. The KATS action came to secure safety related to hazardous gases emitted from construction machinery and also to cope actively with the moves of advanced countries to strengthen import restrictions.

The exhaust gas standard to be developed as a Korean national standard contains a precision measurement method for air pollutants, NOx, PM, etc., and is aimed at responding to the U.S. EPA Tier III and the EU's Directive 97/68/EC Stage III, further strengthened standards, which will be implemented in 2008.

The United States is applying Tier II in 2006, a tougher standard than Tier I enacted in 1996. Europe is presently applying Stage II in 2006 after implementation of Stage I in 1999.

Heat Recovery Ventilator Testing Method Suggested as a Global Standard

KATS disclosed that Korea had suggested 'Heat Recovery Ventilator (Air-to-Air Energy Recovery) Testing and Rating of Performance' as a global standard at the international conference of ISO held in Jeju September 25~29.

If the function testing and rating method is adopted, it can unify heat exchange efficiency measurement methods, which now are different in respective countries, and also can reduce the ventilator's energy consumption with addition of an energy coefficient independently. By leading the global standard, furthermore, Korea will possibly accelerate exports of the heat recovery-type ventilators.

Existing air-to-air ventilators increase energy consumption as they exhaust contaminated indoor air externally and intake fresh air from outside by using mainly vents or fans. If the heat recovery-type energy-saving ventilator is used, it can reduce the loads of indoor air conditioners or heaters by 20~30%.

Safety Management of Hazardous Products



On September 27, KATS announced it would strengthen the safety management of hazardous chemical substances, or environmental hormones, for industrial products intended for children's use to the safety guide level of Europe.

To achieve this, KATS is currently conducting differentiated management for safety hazard-verified industrial products by categorizing them into safety certification, self-regulatory safety confirmation, safety/quality indication, etc. in accordance with the respective level of hazard following the full revision of the Quality Management and Industrial Products Safety Management Act in December last year.

As for new products yet to be specified as objects for legal management, such as safety certification items, KATS is implementing a 'Fast Track System' designed to encourage suspension of sale, withdrawal or disposal to prevent widespread consumer damage in the event that safety accidents occur or are feared to occur due to hazardous chemical substances and also to make the fact public.

In the past, there were difficulties in designating new products that contain hazardous substances or have a high possibility of safety accidents, such as wheeled sporting shoes and bond balloons, as safety management items because it takes a minimum six months to arrange related laws and ordinances, enact safety standards, etc. Therefore, the government was blamed for failing to cope rapidly with the situation.

Regarding industrial products used by children below 14 years of age, in particular, KATS strengthened safety management of hazardous chemical substances, or endocrine disrupters, which are feared to harm children's health or life, in the enforcement decree of the related law for the first time.

For children's toys, baby carriages, etc., KATS has thus far managed 15 kinds of hazardous chemical substances, including lead, mercury, phthalate plasticizer and formaldehyde. But the agency plans to examine 65 additional substances, including nickel, which is feared to be included in personal ornaments, Bisphenol A (known to be an environmental hormone) and highly toxic organic tin compounds. It plans to designate 46 kinds among them as management items in March next year.

BACnet Application System Design and Management Guidelines

To increase applications for BACnet, the Korean Agency for Technology and Standards (KATS) decided to prepare and distribute guidelines on system design, procurement, management, etc. to the related business communities in Korea.

Under an ISO global standard (1999), BACnet is an open-type Data Communications Protocol for Building Automation and Control Networks. Korea adopted it as a Korea Industrial Standard in 2003.

On October 2, KATS announced that expanded utilization of BACnet, which was enacted as a KS standard, is desirable according to the result of its survey on building automation standardization trends at home and abroad and the opinions collected from related business circles.