



KATS Newsletter

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Standardize Nuclear Energy Industry

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Korea-U.S. Flat Display Standardization Seminar

To reinforce the constitution of the Korean display industry, which currently occupying the No. 1 global market share with world-class production technology, KATS has prepared and is promoting an 'International Standardization Plan for Display Industry,' encompassing multilateral standardization strategies, including establishment of cooperation channels with advanced countries.



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To Adopt 150 Int'l Standards to KS by Next Year Standardize Nuclear Energy Industry

Amid a rapidly expanding global nuclear energy market, KATS plans to promote 'Nuclear Energy International Standardization Project' for the next five years until 2011 in order to prepare a foothold to advance as a strong nuclear energy nation.

Nuclear Energy, which emits nearly no greenhouse gas or pollutant is recently receiving keen attention as the most suitable alternative energy source for the high oil price era. And plans for construction of additional nuclear power plants are being announced by respective countries throughout the world. Regarding this situation, nuclear energy industry is expecting a 'Second Nuclear Energy Renaissance.'

The world's nuclear energy development status shows that 35 units (29.4 million kW) are under construction and 47 units (52.17 million kW) have been planned. Accordingly, advanced nuclear energy countries like the U.S., Germany, France and Japan are intensively competing in order to occupy the global nuclear market.

Based on 30 years of nuclear energy know-how, Korea is also opening an overseas markets. The present 'Nuclear Energy International Standardization Project' aims to make Korean nuclear energy industry to major export industry as like semiconductor and automobile. For expansion of nuclear energy industries to overseas, it is very important to develop new technologies and make existing advanced technologies be adopted as international standards.

All nuclear energy-specialized organizations will participate in the project being organized by Korea Electric Association (KEA): Korea Atomic Energy Research Institute (KAERI) in the instrumentation & control field; Korea Institute of Nuclear Safety (KINS) in the safety field; and Korea Nuclear Fuel Co., Ltd. (KNFC) in the nuclear fuel field.

KATS plans to harmonize national standards with international standards and raise the present 30% harmonization rate to the 95% level (210 standards) by 2012. Under this plan, KATS will adopt 150 international standards to KS by 2008. Until 2010, KATS intends to introduce about 50 revised international standards reflecting national circumstances.

In order for more Korean technologies to be adopted as international standards, KATS plans to suggest 10



Promotional Tasks

No.	Task Name	Content & Goals
1	Expand national standards	<ul style="list-style-type: none"> ● Increase national standards by stage (Total: 210 KS, 2006-2012)
	Establish group & national standards systems	<ul style="list-style-type: none"> ● Convert KS standards into international standards and group standards into de-facto standards, while nurturing PSDOs
2	Linkage of technical standards with KS and build cooperation system among standardization agencies	<ul style="list-style-type: none"> ● Introduce KS standards for technical standards of the Atomic Energy Act and promote application of KS
		<ul style="list-style-type: none"> ● Build a role-sharing system by agency for organic linkage of technical standards, national standards and group standards
3	Identify specialized manpower for international standardization of KS and standardization cooperation	<ul style="list-style-type: none"> ● Select and support 10 international standardization tasks
		<ul style="list-style-type: none"> ● Prepare standardization roadmap
		<ul style="list-style-type: none"> ● Identify international standardization-specialized manpower ● Hold standardization assembly meetings, Korea-U.S.-Japan international seminar, etc.

international standards by 2011, focusing on export promising items, such as nuclear reactor technology, and major results of government supporting R&D projects. Using the advantage of a powerful country of the IT industry, in particular, KATS will lead IT standardization activities in the international nuclear standardization field.

Through human resource programs for international standards experts in the nuclear energy field, KATS plans to increase the present 11 standards experts to more than 100 by 2011, and among them, the Agency intends to increase the number of international working group (WG) chairmen or project leaders from the present one to ten by 2011.

Despite Korea's nuclear power generation capacity or technology being already at the world-class level, activities in the international standardization arena have been quite limited. Through the present project, the Ministry of

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Interconnection of IT Equipment Meeting in Jeju **Home Network Tech Standardization Sought**

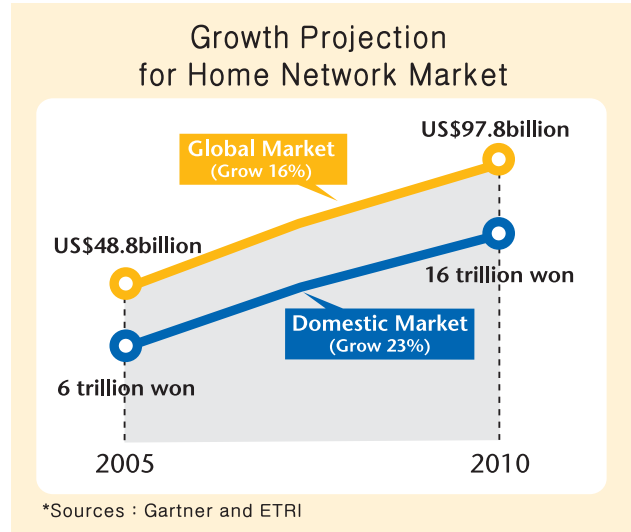
KATS hosted the 18th ISO/IEC JTC1/SC25(Interconnection of Information Technology Equipment) Plenary and WGs Meeting, September 3-7 at Shineville Resorts in Jeju Island with about 120 international standards experts from 23 countries.

ISO/IEC JTC1/SC25 is responsible for international technology standards in the fields of HES (Home Electronic System), customer premises cabling, interconnection of computer systems and attached equipment, etc. Since joining this technical committee in 2002 as a p-member, Korea has been engaged in related international standardization activities.

During the five-day meeting, the participating international experts worked on draft international standards for HES Gateway and HES CMP (Centralized Management Protocol) technologies providing pivotal functions for residential home network services and 10Gbps Cabling technology, etc., which will lead next-generation home network industries.

In the middleware field, which determines the central system for home network standards, in particular, five countries (the U.S., Germany, China, Japan and Korea) endeavored to reflect technologies of their own countries. Based on CCP (Common Communication Protocol) technology, which has been reflected in international standards, Korea conducted activities to urge the adoption of

UMB (Universal Middleware Bridge) technology for product interoperability and WiBEEM (Wireless Beacon-enabled Energy Efficient Mesh Network) technology for resolution of residential dead zones as new international standards.



KATS is going to broaden the advanced industrial infrastructure which securing the market competitiveness through standardization by finding Korea's wireless communication of home network and service technology which can lead internationally and realtime reflecting its technology on the international standard.

Overview of Korea-Suggested Technologies

Home Network Service Technology (CMP)

- Standards Name: ISO/IEC CD 29401 (Home Electronic System Centralized Management Protocol (CMP) for Ubiquitous Home Network Services

Part-1: Remote Management of Residential Gateways
 Part-2: Remote Management of Application Server
 Part-3: Remote Management of User Terminal

- Suggesters: Shin Yong-Sik, manager of SK Telecom and Prof. Jun Ho-In of Kyungwon University

Home Network Interoperability Technology (UMB)

- Title: Product Operability for Home Network

Universal Middleware Bridge for Product Interoperability

- Presenters: Moon Kyung-Duk, team leader, and Sohn Young-Sung, senior researcher of Electronics and Telecommunications Research Institute

Wireless Communication-Based u-Home Network Technology

- Title: WiBEEM (Wireless Beacon-enable Energy Efficient Mesh Network) Technology for Wireless Home Network Services

- Presenters: Prof. Jun Ho-In of Kyungwon University and Park Yong-Gil, Manager of SK Telecom

To Sharpen Display Industry Competitiveness Korea-U.S. Flat Display Standardization Seminar

To reinforce the constitution of the Korean display industry, which currently occupying the No. 1 global market share with world-class production technology, KATS has prepared and is promoting an 'International Standardization Plan for Display Industry,' encompassing multilateral standardization strategies, including establishment of cooperation channels with advanced countries.

As part of the plan, KATS invited Chairman Larry Weber of International Society for Information Display (USA) and Chairman Joe Miseli of International Display Measurement Commission (USA), which are taking the lead in sharing global research results and measurement standards for IMID (International Meeting on Information Display) 2007, and discussed ways to build international standardization cooperation systems.

At the 'Korea-U.S. Flat Display Standardization Seminar' of IMID 2007 held on August 29 at Daegu EXCO, participants also discussed ways to promote bilateral cooperation between the two countries regarding international standardization, which is actively proceeding in industry, research institute and academic circles.

At the seminar, the latest standards technologies were introduced, including measurement method of HDTV's power consumption, proper evaluation method for image signals in accordance with display size and resolution, subjective analysis and measurement method through specific patterns, display measurement method considering the characteristics of human visual recognition, etc.

In the future, KATS intends to support the overfulfilment of



'Display Parts & Materials Technology Development Strategies' prepared pan-governmentally to raise the competitiveness of parts and materials industries, which are vulnerable compared with the scale of the display industry, by increasing draft international standards of Korean technologies and activating international standardization cooperation with competing countries.

Moving one step further from the past international standardization strategy that focused on key parts, KATS plans to actively promote preoccupation of international standards on basic and essential technologies for core materials.

For displays, Korea achieved a global market share of 38% and US\$26.2 billion in exports (8% of total global exports: US\$325.5 billion) in 2006, ranking the 1st in the world at present, followed by Taiwan (2nd) and Japan (3rd). Although the localization rate of display parts is more than 70%, that of related materials does not even reach 20%. Localization rates are 91% for color filter, 95% for BLU, 0% for liquid crystal and 6% for protective film.

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Standardize Nuclear Energy...

Commerce, Industry and Energy (MOCIE) forecasted that Korea can prepare a foundation to raise its position in the international standards field and to advance as a strong nuclear energy country.

Meanwhile, KATS held 'Workshop on International Standardization for Nuclear Energy 2007' on August 30 at the Hyundai Hotel in Gyeongju City to discuss specific strategies for the nuclear energy standardization with related experts.

Stressing that 'nuclear energy standards' are a very important field widely used in design, construction, operation, etc. to the extent that the standards are regarded as the 'Flower of Standards,' Yoon Jong-Ku, Director of MOCIE's Energy Logistics Standards team said, "Well aware of the importance of source technologies, Korea is investing heavily to technology development, but the nation should proceed with R&D and international standardization activities at the same time to enhance investment efficiency, commercialization of developed technologies and export industrialization."



Labeling Regulation for Vacuum Cleaner Revised

KATS will revise the labeling regulation for vacuum cleaners so as to clearly distinguish between 'suction power' and 'power consumption' to prevent consumer confusion. Thus far, there have been some cases to make misunderstood power consumption as a suction power.

Existing safety criteria of electrical appliances regulate the product name, model name, power consumption, etc., to be indicated but marking of suction power is not stipulated.

In general, vacuum cleaners with high power consumption can be considered to have high suction power, but power consumption is not always proportional to suction power. A survey found that the ratio of suction

power to power consumption showed large differences, from a minimum of 19% to a maximum of 49%.

KATS plans to post a notice regarding revision of the labeling regulation on October 19, 2007, and apply the revised criteria to vacuum cleaners produced from November this year.

With revision of the labeling regulation for vacuum cleaners, it can be possible to select the product with large suction power and low power consumption. So, consumers will be able to reduce expenses related to both purchase and electricity consumption. And producers also can strengthen industrial competitiveness through development of higher efficiency products and reduce energy costs.

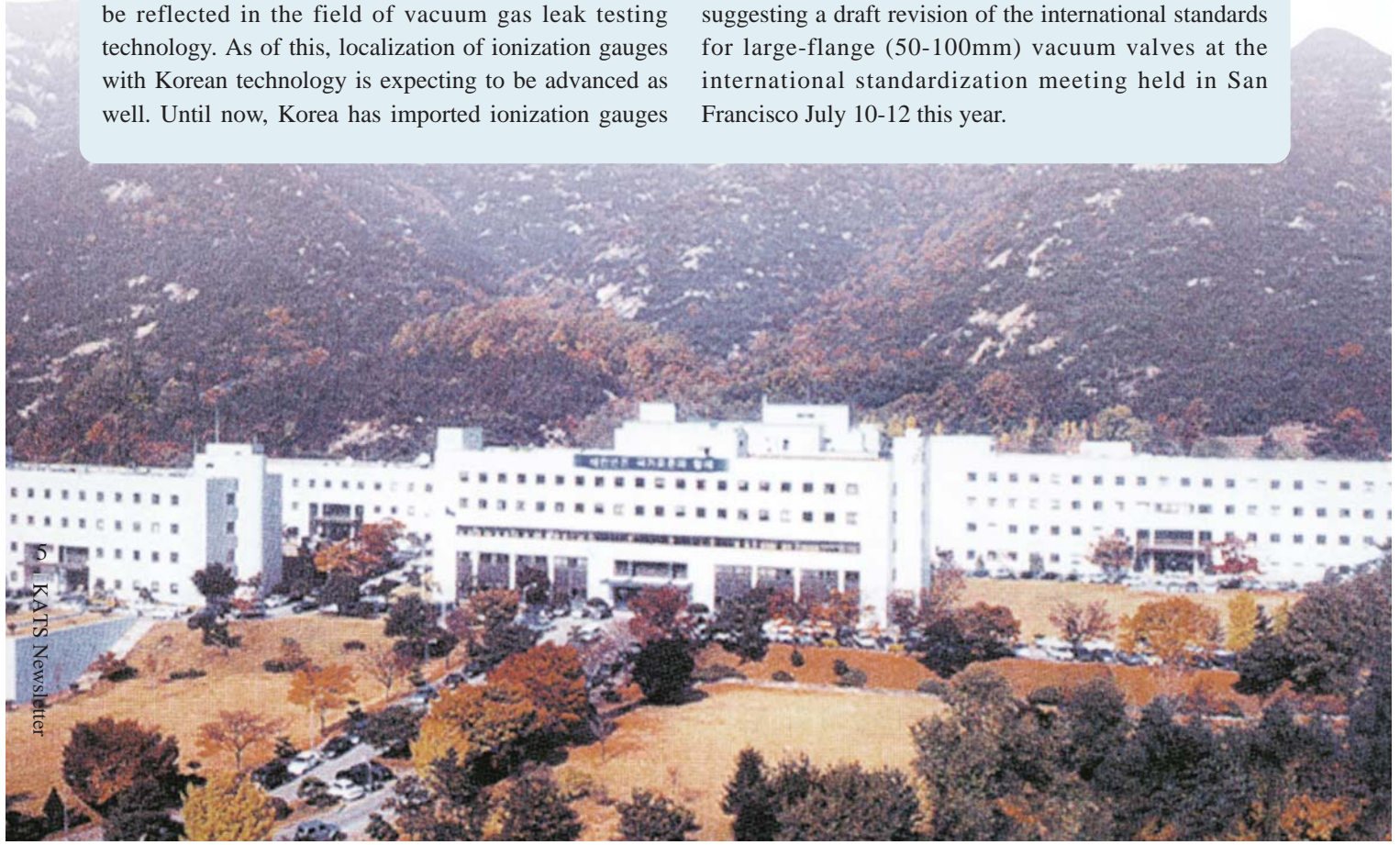
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If the new items are established as an international standards, vacuum valve-related Korean technology will be reflected in the field of vacuum gas leak testing technology. As of this, localization of ionization gauges with Korean technology is expecting to be advanced as well. Until now, Korea has imported ionization gauges

from the U.S., Germany, U.K. and France, etc. due to the lack of manufacturers of ionization gauges.

In addition to the two approved work items, meanwhile, Korea is also conducting an active international standardization activities to preoccupy international standards for vacuum technology, suggesting a draft revision of the international standards for large-flange (50-100mm) vacuum valves at the international standardization meeting held in San Francisco July 10-12 this year.



To Prevent Safety Accidents New Criteria for Installation of Playground Equipment



To prevent hazards at playground, in case of children fall down while running and playing, flooring materials of playground such as sand or rubber which can withstand a certain level of shock will be regulated from January 27, 2008. The sand used at playgrounds will also be tested for eight kinds of heavy metals, including lead, chromium, cadmium and mercury.



Korea's playground safety management will be enhanced to the level of advanced countries.

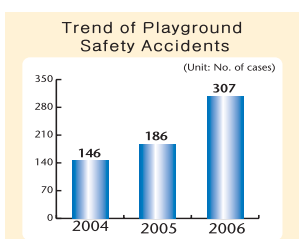
KATS prepared the draft criteria for installation of new playground equipment and issued a preliminary notification of legislation on August 28.

According to the draft criteria, landscape architecture and fences must be installed with structures which can not be entered easily by pets. Also, age criteria and safety precautions in use should be indicated in the playground, securing the required minimum space for playground equipment like swings.

Considering the fact that safety accidents involved in children's head, hands, feet being trapped have frequently occurred, new draft criteria stipulate the required gap size to prevent children from being trapped.

Within next four years, all existing playgrounds nationwide, numbering about 60,000, have to receive regular inspections in accordance with new criteria for installation. If the playground is newly installed, it should be satisfied with the requirements of safety criteria for installation of playground equipment.

Since there have been no specific criteria for installation of playground equipment, safety accidents have increased every year. Therefore, the new criteria are expected to significantly reduce safety accidents at playgrounds.



Moreover, the draft criteria for installation of playground equipment are prepared based on the safety standards of advanced countries, the U.S., Europe. In this regard,

Meanwhile, KATS also plans to enact the Enforcement Decree and Regulations of the Playground Equipment Safety Management Act, which are designed to strengthen safety management of playground facilities at department stores, rest area on highways, restaurants, hospitals, etc. and provide compensation insurance for safety accidents.

Basic Direction

Goals:

- Secure safety of playground equipments
- Enhance functions of playground equipment
- Create safe and pleasant playground environment

Content: For prevention of safety accidents

- Correct installation methods/conditions by playground equipment type to ensure required minimum space
- Methods to prevent children's head, hands and feet from becoming trapped
- Regulations on playground flooring materials, safety precautions, etc.

Provisions Related to Installation/Technical Criteria

Provision	Content
Article 11 (Installation of Playground Equipment)	Playground facility installers should install equipment in conformity to facility criteria and technical standards
Article 12 (Inspection, etc. of Playground Equipment)	Playground management bodies should receive regular facility inspection more than once every two years.

※ Preliminary legislation notification of the Enforcement Decree of the Playground Equipment Safety Management Act, which contains playground equipment installation and regular inspection method and procedures, was issued on August 28, 2007.