

KGS e-Newsletter

05/06

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For Third Consecutive Year

KGS Receives '2007 Korea New Tech Award'

Korea Gas Safety Corporation (KGS) received the overall grand prix at '2007 Korea New Technology Awards' organized by Korean Standards Association (KSA) for its newly developed multi functional Cathodic Protection (CP) Monitor (SD-21).

The award is designed to identify new technologies and products developed with creative ideas in an effort to



strengthen the competitiveness of domestic enterprises and stimulate globalization of products.

To be an award winner requires not only technology innovation and product competitiveness but also excellence in all management areas of the company, including manager leadership and customer satisfaction.

> Inaugurated in 2000, the award marked its eighth anniversary this year. In 2002, its name was changed from 'New Millennium Award' to 'Korea New Technology Award' with the aim of enhancing convenience in people's life through innovative technologies and excellent quality, while upgrading enterprise value all the more.

Screening Committee Chairman Yoo Chun-Beon, a professor of Kyonggi University, said, "This year, participation in the large enterprise category expanded and new technology products of small and medium enterprises (SMEs) also increased. So, the Screening

Committee reinforced the appraisal criteria in order to grow the Korea New Technology Award into a world-class award system."

This year's award-winning technology, CP-Monitor (SD-21), was developed jointly by the Institute of Gas Safety Technology (IGST) of KGS and Yesco Corp. through common research. It is designed to be Korea's representative multi-functional detection equipment, capable of monitoring all critical elements required for prevention of corrosion in gas pipelines by integrating various functions, such as measurement of voltage, current, earth resistance and frequency, into one unit. By enabling thorough inspection of the condition of gas pipelines, the CP monitor is expected to contribute significantly to the reduction of gas accidents.

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News Focus

World Conference on Safety of Oil & Gas Industry

The first 'World Conference on Safety of Oil and Gas Industry (WCOGI) 2007' was held April 10~13 at the Hyundai Hotel in Gyeongju, Korea, with about 400 world-renowned professors and technology specialists in the oil and gas industry from 20 countries participating.



The symposium aimed to enhance communication among researchers and

practitioners from around the world in the area of oil and gas safety engineering. The participants included KGS President & CEO Rhee Heon-Man and Prof. Sam Mannan of the Texas A&M University, concurrently a member of the Colombia Accident Investigation Board.

WCOGI 2007 provided the first opportunity for the world's preeminent industry-academia-research institute experts to gather and exchange information related to new cutting-edge oil and gas safety technologies and their experience, providing important momentum for Korea to become actively involved in the global arena, along with introduction of domestic advanced technologies and to accelerate technology innovation.

At the symposium held under the theme 'Safety Management Supporting Sustainable Development Transcending Restrictions,' a total of about 200 theses from 20 countries were presented on such topics as LNG & LPG Safety; Risk & Safety Management System, Safety Culture, and Facility Siting; Process Hazard Analysis, Consequence Modeling; Reliability Analysis & Mechanical Integrity; and Emergency Response Planning Emergency.

Of particular note, five world authorities on safety in the oil and gas industry -- Prof. Yoon En-Sup of Seoul National University, Chairman Carolyn W. Merritt of U.S. Chemical Safety and Hazard Investigation Board, Prof. Hans J. Pasman of the Delft University, Netherlands, Prof. Terushige of Yokohama National University, Japan, and Dr. Kim Dong-Sup of Shell Global Solutions -- participated as keynote speakers.

Keynote Speakers

Division	Speaker	Topic
	Prof. Yoon En-Sup Yoon, Seoul	The New Criteria for Safety Evaluation
Keynote Lecture I	National University/ Korea National	in the Chemical Process Industry
	Institute of ES & H	
	Chairman Carolyn W. Merritt, U.S.	Commitment to a Proactive Culture:
Keynote Lecture II	Chemical Safety and Hazard	Abnormal Situation Recognition and
	Investigation Board/ IMC Global	Management
	Inc, U.S.A	
Keynote Lecture III	Prof. Hans J. Pasman, the Delft	Energy Carriers, Treat Them Wisely:
	University of Technology,	Prepare, Prevent, Protect
	Netherlands /the European Process	
	Safety Centre	
Keynote Lecture IV	Prof. Terushige Ogawa, Yokohama	Lesson Learned from Recent Accidents
	National University, Japan/JJapan	of the Oil Industry in Japan
	Explosives Society	
Keynote Lecture V	Dr. Dong-Sup Kim, Shell Global	Mechanical Integrity and Safety
	Solutions, Ohio State University	Assessment of Pressure Equipment

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CKGS on the Move

KGS Joins 'Safe Korea Exercise'

As numerous human casualties and extensive property damage occurs every summer due to large-scale typhoons and torrential rains, the government implemented '2007 Safe Korea Exercise (SKX)' May 14 to 16 in order to protect life and property from those disasters.

KGS participated in the '2007 SKX' together with a total d about 370 organizations, including National Security Council (NSC), central government ministries, local autonomous bodies and disaster management-related agencies. The three-day exercise was organized by the Central Safety Management Council (Chairman: Prime Minister).

There was a wind and water damage-response exercise related to typhoons and floods on May 15 and another nationwide exercise responding to earthquakes and tidal waves with disaster warning by the Civil Defense Corps for the first time.

KGS, Jeonbuk Sign MOU for Gas Facility Improvement

KGS and the government of North Jeolla province signed a cooperation MOU for a five-year vulnerable gas facility improvement project in an effort to support the everyday safety of low-income classes and to resolve social bipolarization in the province.



For the project, the province and KGS plan to provide 1 billion won and 125 million won, respectively, over the next five years, targeting improvement of LP gas facilities at about 5,000 national basic livelihood security recipient and non-approved social welfare facilities.

If this project is completed as scheduled under the MOU, most of those facilities using LP gas will be upgraded to safe facilities free from gas accidents. Jointly with other local autonomous bodies, furthermore, KGS is also presently promoting facility improvement work for 16,000 LP gas facilities of national basic livelihood security recipients.

'CS & Ethical Management Leader Workshop'



On May 15, KGS held 'CS (Customer Satisfaction) & Ethical Management Leader Workshop' at its Seoul District Head Office with 40 team heads and manager—level employees participating.

The workshop was designed to enhance the qualifications of CS and ethical management leaders and stimulate related business suitable for a 'global

gas safety service enterprise receiving customer confidence - the KGS 2015 vision dedared early this year.

With KGS Technology & Safety Director Kim Jæ-Yong's expression of his strong will that "CS management and ethical management are the only way to survive" as a start, invited external experts gave ledures on the theme 'Take-off Toward a CS & Ethical Management Leader Firm.'

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KGS on the Move

Gas Safety Resolution Rally with NCHC

KGS held a gas safety resolution rally with the National Council of Homemakers' Classes (NCHC) on April 17 at Seoul Kyoyuk Munwha Hoekwan in Yangjae-dong, Seoul, to spread gas safety awareness.

The rally was held with the participation of about 1,200 leaders of NCHC, including KGS Vice President Chung Doo-Hwan and NCHC Chairman Lee Yoon-Ja



After adoption of a gas safety resolution at the rally, the NCHC leaders pledged to take the lead in the prevention of gas accidents and also in the proliferation of gas safety awareness.

In his congratulatory address, KGS Vice President Chung asked the participating housewives, who use gas themselves, to surely abide by gas safety regulations. KGS also distributed gas safety pamphlets to the participants and staged a gas accident photo exhibition as well.

'2006 Gas Accident Yearbook' Published



KGS has published '2006 Gas Accident Yearbook,' covering domestic and overseas gas accidents from 2002 to 2006 with a focus on the accidents and cases that occurred in 2006.

The 636-page yearbook consists of seven chapters: Chapter 1 (Law & Ordinance System for Prevention of Gas Accidents); Chapter 2 (Analysis Method & Classification Criteria of Gas Accident Statistics); Chapter 3 (Overall Analysis of Gas Accident Cases); Chapter 4 (Five-Year Analysis of Domestic Gas Accident Status); Chapter 5 (Analysis of

Gas Accident Status and Practices); Chapter 6 (Status of Overseas Gas Accidents for Five Years); and Chapter 7 (In-Depth Analysis of Gas Accidents and Major Accident Practices).

In addition, an appendix contains 'Annual Gas Accident Statistics (for 10 Years), 'List of Gas Accidents in 2006 and disaster-related statistics, including occurrence of fires reported by the Ministry of Government Administration & Home Affairs, Industrial Disasters reported by the Korea Occupational Safety & Health Agency and traffic accidents reported by the National Police Agency.

In particular, Chapter 3 (Overall Analysis of Gas Accident Cases) and Chapter 5 (Analysis of Gas Accident Status and Practices) are designed to help frontline personnel effectively implement gas safety management practices, along with the analysis of causes for gas accidents by type (2002~2006) in Chapter 7 as well.

Unlike those published in the past, the 2006 yearbook has fresh images starting with the cover page and graceful design with a significant increase in the number of color pages. To fully utilize naturally-occurring blank spaces, the publisher also inserted episodes and prize-winning works from gas safety poster contests so that readers could more easily understand complicated accidents.

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LNG Trade Seen to Triple Over Next 15 Yrs.

The 15th International Conference & Exhibition on Liquefied Natural Gas took place in Barcelona, Spain, April 24~27, confirming the growing importance of LNG in the world energy sector.

During the conference, President & CEO Tan Sri Dato Sri Mohamed Hassan Marican of Petronas foresaw an annual growth rate of 8% for the sector until 2012, while consultants Wood MacKenzie expected the world trade in LNG to increase three-fold over the next 15 years.

Executive Vice President Eune Bjornson of the Norwegian company Statoil also emphasized strong prospects for the LNG sector. He predicted that global sales of LNG would double in the next 10 years, with the strongest growth coming from the U.S. market.

KOGAS, as the world's largest LNG importer, participated in the LNG 15 Conference, which attracted almost 5,000 participants from around the world.

KGU Holds Korea-Norway LNG Forum

On May 9, the Korea Gas Union (KGU) held the 'Korea-Norway LNG Forum' at the Grand Hyatt Hotel, Seoul, jointly with INTSOK, the Norwegian Oil and Gas Partners, and managed by the Norwegian Embassy.

Aiming at exchanging technologies and information for the development of gas industries in Korea and Norway, the forum was arranged as part of the 'Seminar on Korea-Norway Business Cooperation' on the occasion of the official visit of Norwegian Crown Prince Haakon and Crown Princess Mette-Marit to Korea.

About 60 high-level Norwegian government officials, including the minister of trade and industry, vice minister of foreign affairs and vice minister of fisheries and coastal affairs, and related Korean government officials and business representatives participated in the LNG forum.

Industrial Super Boiler to Make Debut in 2012

A report on Korea's present position in the industrial boiler field, which lags behind advanced countries, and future development plan blueprint were discussed at an 'Industry Roundtable on High-Efficiency Energy Equipment Development Strategy' held on May 11 at Centro Hotel in Seocho-dong, Seoul. The roundtable was organized by Korea Energy Management Corp. (KEMCO).

"Korea needs technology development for a new industrial boiler due to having a production system that depends on technical tie-ups, mainly with Japan, and the technology gap with advanced countries. Due to low operating efficiency of 82-83% and a high air ratio, in particular, the heat loss of Korean boilers is very high. The government plans to raise the efficiency to 94~95% by 2012," said Dr. Kim Se-Won of Korea Institute of Industrial Technology (KITECH) at the roundtable.

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Sejong-AMC

Buried-Type Pressure Regulator

City gas pressure regulator and industrial gas meter supplier Sejong-AMC plans to market its self-developed buried-type pressure regulator (Model: Palace).

Recently, Sejong-AMC received completion of a precision inspection from KGS for the 3"-capacity buried-type regulator, which the company developed early last year after one year of research work.



With a maximum inlet pressure of 0.99Mpa (9.9kgf/ß≤) and maximum flow rate of 20,422Nß©/hr, the regulator is nearly noiseless and an environment-friendly product, having a compact design and simple structure.

Due to its use of a transparent cover, in particular, the operating status of the regulator can be monitored easily, and its inlet and outlet components are welded, so there is no worry about gas leakage. As a small-size and lightweight product, when dismantling and checking the regulator, one worker can replace parts even if there are difficult conditions at the installation site.

DYMCO Co., Ltd. High Fuel-Mileage 'LPGI System'



LPG vehicle parts producer DYMCO has developed an LPGI system (Product Name: SGI System) after one year of research and launched sale of the product starting this month.

The DYMCO-developed LPGI system features more than 95% of the fuel mileage of gasoline, providing significant fuel cost reduction compared with other general evaporators

having fuel mileages of 60~70% of gasoline.

Furthermore, DYMCO's LPGI system also resolved a problem with output decline, which has been the primary disadvantage of existing evaporator types, while increasing fuel mileage by more than 10% over the LPG injection method and perfectly resolving the 'back-fire' phenomenon.

The present LPGI system ensures safe driving because, although the engine is started initially with gasoline, the fuel is converted automatically to LPG, and when LPG is completely used up, the fuel is switched to gasoline again.

The ECU (Electronic Control Unit) of existing products, after being installed in a vehicle, must go through complicated mapping process. However, DYMCO's LPGI system has a structure that does not require this process, so it is expected to contribute to enhancing the efficiency of installation firms. To make installation easier, DYMCO also established standardized procedures according to displacement and vehicle type.

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Korea-US FTA

A Step Closer to 'N.E. Asia Biz Hub'



The free trade agreement reached by Korea and the US could provide momentum for Korea to upgrade its industrial structure and propel the country to achieving its goal of becoming a business hub in Northeast Asia.

This was the core message discussed at a forum sponsored by the Ministry of Commerce, Industry and Energy (MOCIE) in southern Seoul, which focused on Korea's industrial strategies in light of the landmark trade deal.

MOCIE set three objectives to helping Korea become a business hub:

- 1) Korea's main industries should attain more value-added aspects,
- 2) Efforts should be made to foster new growth engines and knowledge-based industries,
- 3) There should be concentrated emphasis on developing core technologies for the components and materials sector.

Participants of the forum also discussed the importance of nurturing a favorable business environment for both local and foreign investors as well as efforts to increase technology cooperation between Korea and the US.

Measures to boost FDI

Foreign investors in Korea will be able to get better support from the government on issues such as tax incentives and ways to cut distribution costs. At the first meeting of the year to promote foreign direct investment (FDI) initiatives, government agencies agreed to allow local businesses to partner up with foreign companies in Foreign Investment Zones (FIZ).

Until now, only foreign firms could open a factory within an FIZ. With the change, local companies will be able to occupy space in an FIZ with their foreign partners, which could cut distribution costs for the firms as well as streamline operations for increased efficiency. In addition, one US-based firm has become the first company to receive the distinction as an FIZ in the tourism sector.

The area that Stanford Hotel Korea will invest in has been designated as an FIZ. Stanford Hotel Korea will invest US\$20 million in Sangam-dong in eastern Seoul. With the FIZ designation, the company will receive 100% tax breaks (corporate and income taxes) for five years and then a 50% tax discount for an additional two years.

Among measures to improve the quality of life for foreigners living in Korea, the government will examine ways to increase English-language services as well as provide English subtitles for popular television programs.