

KGS e-Newsletter

01 2007
January

▶ Top Story

- KGS Ranked Among Leaders in PCSI for 2006

News Focus

- Aiming at Global Gas Safety Service Enterprise in 2007

KGS on the Move

- World-Class Gas Boiler Promotion Panel Set
- R&D Results of Membrane LNG Storage Tank Criteria
- '06 Excellent Gas Prevention Practices Contest
- Newly-Advanced Gas Safety Management Workshop
- Int'l Symposium with ISO Working Panel Members

New Technology

- Commercialization of Notebook PC Fuel Cell Samsung Electronics
- Gurbong Hanjin Manufactures DME Filling System

Events

- Presentation Session on 2006 R&D Results

Rules & Regulations

- City Gas Safety Management Regulations Revised

For Third Consecutive Year

KGS Ranked Among Leaders in PCSI for 2006

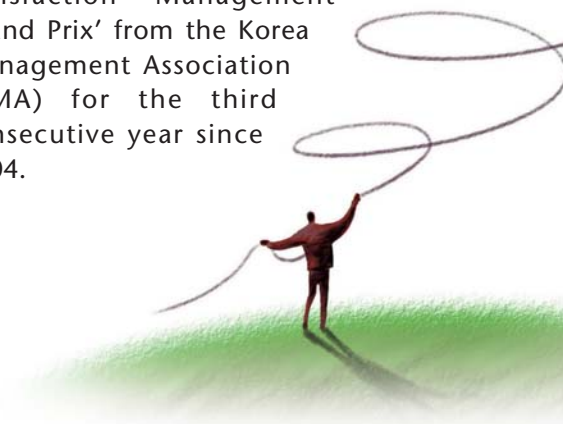
Korea Gas Safety Corporation (KGS) was one of the highest ranking organizations among government subordinate agencies for the third consecutive year in the 'Public-service Customer Satisfaction Index (PCSI) for 2006' announced by the Ministry of Planning and Budget (MPB) on January 5.

Under the ministry's supervision, the PCSI survey was conducted between October 1 and December 2006 on 80 government subordinate agencies. The results of the survey showed that KGS ranked second among 12 agencies in the inspection & verification field with PCSI 84.1 points. KGS was also selected as one of the six most excellent agencies with PCSI score rising annually from the preceding year.

In 2004, when the PCSI survey was launched, KGS ranked first among 12 agencies in the inspection & verification field with 77.4 points. In 2005, KGS ranked third with 82 points. This was a result of KGS' strenuous efforts in various improvement activities, including preparation of customer response manuals and provision of highly courteous, high-quality services through employee education programs, under its vision to become a 'World-Class Gas Safety Service Enterprise' loved by the people.

Recognizing internal and external environment changes - management environment transformed to customer-centered from corporate-oriented in the 21 century's unlimited competition era and the daily upgrade in customers expectations regarding service level - more quickly than other public agencies, KGS has pursued customer-satisfaction management while integrating it with an overarching CS vision and philosophy to become a gas safety service firm leading customer emotion.

In November 2006, meanwhile, KGS also received Korea's highest 'Korea Customer Satisfaction Management Grand Prix' from the Korea Management Association (KMA) for the third consecutive year since 2004.



News Focus

01 2007
January

Top Story

- KGS Ranked Among Leaders in PCSI for 2006

News Focus

- Aiming at Global Gas Safety Service Enterprise in 2007

KGS on the Move

- World-Class Gas Boiler Promotion Panel Set
- R&D Results of Membrane LNG Storage Tank Criteria
- '06 Excellent Gas Prevention Practices Contest
- Newly-Advanced Gas Safety Management Workshop
- Int'l Symposium with ISO Working Panel Members

New Technology

- Commercialization of Notebook PC Fuel Cell Samsung Electronics
- Gurbong Hanjin Manufactures DME Filling System

Events

- Presentation Session on 2006 R&D Results

Rules & Regulations

- City Gas Safety Management Regulations Revised

President Rhee Emphasizes
Aiming at Global Gas Safety Service Enterprise in 2007

On January 2, KGS held the corporation's opening ceremony for the new year at its grand auditorium with about 300 executives and employees of the head office and district offices in the metropolitan area participating.



In his New Year's message at the ceremony, KGS President & CEO Rhee Heon-Man praised the fact that KGS was raised to the status of a government-funded agency as well as the efforts of employees related to the corporation's excellent rating in the integrity level survey conducted by the Korea Independent Commission Against Corruption (KICAC).

President Rhee announced several business targets for 2007 to the participating executives and employees as follows, while asking for their continued devotion:

First, Improve Inspection Service & System

This year, KGS plans to work on coding of the gas safety technology criteria, which the corporation has thus far sought. If implemented in full swing, the coding work is expected to contribute significantly to prevention of gas accidents as well as to resolving inconvenience of the business community through rapid grafting of new technologies and early commercialization of newly developed products.

Furthermore, KGS will expand nationwide the one-call system for excavation work presently implemented only in Seoul areas in order to eliminate accidents due to others' work. In addition, KGS also plans to enhance the efficiency of its inspection business remarkably with IT-grafted systems.

Second, Upgrade Gas Safety Inspection Quality

To upgrade gas safety inspection quality, KGS plans to acquire the latest inspection equipment and devices, while raising the reliability of its inspections through reinforcement of inspectors' capabilities and provision of higher-quality inspection services.

In the medium and long term, KGS will convert its simple check-up and inspection work into high-tech and high-added-value business areas, diagnosis, certification and consulting, etc., change its safety management to an advanced country-type system and also endeavor to raise its financial independence level.

Third, Strengthen Accident Investigation & Analysis Functions

After completing its fuse cock free-supply project successfully, KGS will be able to fundamentally prevent gas accidents from poor closing measures and abnormal leakage.

(Continued on p6)

01 2007
January

Top Story

- KGS Ranked Among Leaders in PCSI for 2006

News Focus

- Aiming at Global Gas Safety Service Enterprise in 2007

KGS on the Move

- World-Class Gas Boiler Promotion Panel Set
- R&D Results of Membrane LNG Storage Tank Criteria
- '06 Excellent Gas Prevention Practices Contest
- Newly-Advanced Gas Safety Management Workshop
- Int'l Symposium with ISO Working Panel Members

New Technology

- Commercialization of Notebook PC Fuel Cell Samsung Electronics
- Gurbong Hanjin Manufactures DME Filling System

Events

- Presentation Session on 2006 R&D Results

Rules & Regulations

- City Gas Safety Management Regulations Revised

KGS on the Move

World-Class Gas Boiler Promotion Panel Set

KGS launched a 'World-Class Gas Boiler Promotion Committee' with gas boiler makers and parts firms at a meeting held November 21~22, 2006, at Hanwha Suanbo Condominium in Cheongju City.



A total of 62 business representatives from manufacturers and importers of gas boilers, burners and components, including related officials from the Ministry of Commerce, Industry and Energy (MOCIE), Korea Energy Management Corp. (KEMCO) as well as KGS, participated in the meeting.

To help the business community overcome difficulties caused by domestic market saturation and excessive competition, the Gas Appliances Division of KGS had sought countermeasures with the business community for the past year and found a common denominator to organize the committee.

R&D Results of Membrane LNG Storage Tank Criteria



On November 22, 2006, the Institute of Gas Safety R&D of KGS held a presentation session on the final R&D results of 'Membrane LNG Storage Tank Criteria' at KOGAS' conference room in Ansan City, Gyeonggi-do. The institute had carried out the task for 20 months from March 2005 to October 2006.

At the session attended by related experts from KGS, Korea Gas Corporation (KOGAS), Daewoo Engineering, etc., the institute announced the key content of draft criteria for 'Ground-type Membrane LNG storage Tanks' and future promotion plans. Korea has relied on Japan, France, and others for membrane storage tank-related standards in the past, but the institute developed the draft criteria especially suited to domestic conditions.

'06 Excellent Gas Prevention Practices Contest

Designed to convert compulsory gas safety management into a self-regulatory system by users and firmly establish it, KGS held '2006 Excellent Gas Prevention Practices Contest' on December 12, 2006, at its grand conference room, supported by the Ministry of Commerce, Industry and Energy (MOCIE).



Composed of related officials from MOCIE, KGS, academic circles, media, etc., a 10-member screening committee selected 21 among a total of 55 gas prevention practices in its first screening, and chose seven practices in its final examination. Those who submitted the seven practices attended and explained details directly during the contest and the committee members named 'Most Excellent Award' and "Excellent Award" winners.

01 2007
January

Top Story

- KGS Ranked Among Leaders in PCSI for 2006

News Focus

- Aiming at Global Gas Safety Service Enterprise in 2007

KGS on the Move

- World-Class Gas Boiler Promotion Panel Set
- R&D Results of Membrane LNG Storage Tank Criteria
- '06 Excellent Gas Prevention Practices Contest
- Newly-Advanced Gas Safety Management Workshop
- Int'l Symposium with ISO Working Panel Members

New Technology

- Commercialization of Notebook PC Fuel Cell Samsung Electronics
- Gurbong Hanjin Manufactures DME Filling System

Events

- Presentation Session on 2006 R&D Results

Rules & Regulations

- City Gas Safety Management Regulations Revised

KGS on the Move

Newly-Advanced Gas Safety Management Workshop

With early completion of the 1st advanced gas safety management project, started in 2004, as of December 2006, KGS now plans to work on the 2nd advanced gas safety management project in 2007.



The tasks of the 1st project aiming at a "50% decrease of gas accidents and eliminating serious accidents" are being carried out as part of standard operating procedures. However, 11 specific tasks have not yet been started.

In this context and to meet the need for identification, revision and supplementation of tasks responding to gas safety environment changes, both at home and abroad, following the launch of a new management environment including new management information system, KGS held the 2nd Advanced Gas Safety Management Workshop.

The 2nd advanced gas safety management project was designed to meet the goal of preparing an implementation plan for tasks that can be implemented within three years.

For this, KGS appointed the general manager of Technical Inspection & Advisory Service Division as a chief of a task force team (TFT), consisting of 27 members assigned from offices in the technical safety sector and regional headquarters.

Int'l Symposium with ISO Working Panel Members

The Institute of Gas Safety R&D under KGS organized an international symposium at Daedeok Convention Town on December 7, 2006, on development of polyethylene gas pipe technology and the status of its use for polyethylene gas pipe raw material and connecting parts related to pipe fixtures. The symposium included ISO working committee members invited from abroad.

In the gas pipe session, Gil Seong-Hui, a senior researcher of the Institute of Gas Safety R&D, started with the presentation of a thesis entitled "Finite Element Analysis on Buried PE Pipe under Various External Loadings." This was followed by a presentation on "The Development in North America of PE Gas Pipeline Systems for High Pressure Applications" by Dr. Stephen Boros, technical director, U.S. PPI,

The third speaker, Dr. Ferry Mutter, ex-chairman of ISO/TC138/SC4, explained "The Development in Europe of PE Gas Pipeline Systems for High Pressure Applications," and, the last speaker, Dr. Joerg Lohmar from Germany presented a thesis on "PA 12 Pipe for High-Pressure Gas Installations."

Responding to a question about the maximum pressure at which gas is supplied by pipelines in Europe and North America, the answer to which many participants were most curious about, Dr. Mutter's answer was 8 bar in the UK, Netherlands, Italy, France, Belgium, etc., while Dr. Boros said it is 8.6 bar if polyethylene 100+(PE4710) is used.

In addition, it was mentioned that the maximum actual pressure is determined with consideration of the mechanical characteristics of the pipe material as well as of connecting parts such as fusion spliced parts, branching parts, etc.

01 2007
January

Top Story

- KGS Ranked Among Leaders in PCSI for 2006

News Focus

- Aiming at Global Gas Safety Service Enterprise in 2007

KGS on the Move

- World-Class Gas Boiler Promotion Panel Set
 - R&D Results of Membrane LNG Storage Tank Criteria
 - '06 Excellent Gas Prevention Practices Contest
 - Newly-Advanced Gas Safety Management Workshop
 - Int'l Symposium with ISO Working Panel Members

▶ New Technology

- Commercialization of Notebook PC Fuel Cell Samsung Electronics
 - Gurbong Hanjin Manufactures DME Filling System

Events

- Presentation Session on 2006 R&D Results

Rules & Regulations

- City Gas Safety Management Regulations Revised

▶ New Technology

Commercialization of Notebook PC Fuel Cell Samsung Electronics

Development of a fuel cell for notebook PCs that lasts a month on a single charge is drawing attention.

Samsung Electronics, together with Samsung SDI and Samsung Advanced Institute of Technology (SAIT), announced on Dec. 27 that it had developed a large capacity, 1,200Wh-class, fuel cell for notebook PCs and is planning to distribute it with its notebook model 'Sense Q35' for the first time in the world.



The fuel cell, a docking-type large-size fuel cartridge (1L), provides a month's use of a notebook PC based on 40 hours/week use.

The large-capacity fuel cell, a DMFC (Direct Methanol Fuel Cell) type, can produce a maximum of 20w.

In addition, Samsung Electronics has also developed a small, easy to carry, fuel cell that can supply power to a notebook PC for 15 hours continuously with about 100cc fuel.

Accordingly, commercialization of notebook PC fuel cells is likely to materialize about a year ahead of schedule, with marketing to begin in late 2007 after necessary safety regulations are established.

Gurbong Hanjin Manufactures DME Filling System



Gurbong Hanjin, a professional manufacturer of specialty facilities, has manufactured a DME filling station for KOGAS Incheon depot for the first time.

The DME station consists of a Gurbong-manufactured vaporizer (400kg/h), a dispenser and a 5-ton storage tank, and is capable of supplying fuel for automobile recharging and power generation. DME is a next-generation energy drawing rising

interest in the gas industry and is already in use as a fuel in China.

Lee Byung-Yeol, president of Gurbong Hanjin, said, "DME fuel is expected to contribute immensely to Korea's alternative energy policy in this time of high oil prices. The manufacture of DME filling stations has provided momentum to secure the technology." Gurbong Hanjin exported 200kg/h - 500kg/h vaporizers and an ammonia plant worth US\$1 million and made quality improvements by replacing all materials in its products including globe valve, toxic valve for flanges, and loading arm with stainless steel.

In addition, it plans to export newly developed products such as mobile LPG filling station with a 2.9-ton storage tank, and bulk lorry with a built-in charger, etc. to Southeast Asian markets, including Cambodia, Vietnam, Thailand, and Malaysia.

Meanwhile, to enhance its brand value, Gurbong Hanjin plans to make a circuit visit in January and February of the Southeast Asian region to provide services.

01 2007
January

Top Story

- KGS Ranked Among Leaders in PCSI for 2006

News Focus

- Aiming at Global Gas Safety Service Enterprise in 2007

KGS on the Move

- World-Class Gas Boiler Promotion Panel Set
- R&D Results of Membrane LNG Storage Tank Criteria
- '06 Excellent Gas Prevention Practices Contest
- Newly-Advanced Gas Safety Management Workshop
- Int'l Symposium with ISO Working Panel Members

New Technology

- Commercialization of Notebook PC Fuel Cell Samsung Electronics
- Gurbong Hanjin Manufactures DME Filling System

▶ Events

- Presentation Session on 2006 R&D Results

Rules & Regulations

- City Gas Safety Management Regulations Revised

Events

Presentation Session on 2006 R&D Results

For two days (December 5~6) at the KGS Grand Conference Room, the Institute of Gas Safety R&D, the research and development arm of KGS, held a presentation session on its R&D results for the 14 tasks carried out in 2006.

The session was conducted with a view to spread awareness of the institute's one-year R&D achievements inside and outside of KGS, to share newly developed gas safety technologies and also to increase the utilization of research results. The purpose was also to enhance the research capability of the institute's R&D personnel by arranging for internal and invited external experts to evaluate the research achievements at the same time.

Presented as research tasks related to safety management of LPG facilities were 'Study on Establishment of Parallel Installation Methods for Gas Equipment, Including Evaporator and Controller,' 'R&D of LPG Evaporator's Liquid Leakage Prevention (II)' and 'Feasibility Study on Installation Criteria of Gas Boilers for Other Than Home-Use.'

In relation to the development of gas safety devices, results of 'Study on Safety of Portable Butane Cooker,' "R&D of Devices to Prevent Illegal Conversion of Safety Devices for Ultra-Low Temperature Container Valves" and 'Research of Optical Sensor-Type Gas Leakage Detectors' were presented.

Regarding gas piping, 'Study on Welding Methods of Small-Diameter and High-Pressure Pipes,' 'PE Pipe's Stability Against Ultraviolet Rays and Evaluation of Stress Against External Weight,' 'Functional Improvement and Certification Research for PE Pipe's Squeeze-off Equipment,' Study on Reliability Enhancement Methods for Locating Wire Buried Near PE Pipelines' and 'Study on Optimum Ventilation Structures in Accordance with Installed Location of Pressure Regulators' were presented.

(Continued from p2)

Aiming at Global Gas Safety ...

For safety management focusing on the socially vulnerable, KGS will continue to provide its free-of-charge check-up service for the facilities of alienated classes and promote facility improvement. KGS will spare no effort to be reborn as an enterprise earning high public confidence as a gas accident-specialized investigation agency by strengthening its thorough investigation and analysis functions based on science, including cultivation of international fire & explosion investigators and implementation of gas explosion accident simulations.

Fourth, Invigorate Gas Safety Education, Publicity and R&D

In the education field, KGS plans to establish an efficient education system continuously in conjunction with the development of diverse programs in order to meet customer desires and actively conduct publicity targeting the general public for the practice of gas accident prevention methods, focusing on the dangers of gas accidents.

In line with President Rhee's New Year's message, KGS executives and employees pledged at the ceremony that with an ownership mindset they will spearhead changes and reforms incessantly, practice innovation and unite strongly together under one vision and value to make 2007 a year for KGS to become a 'Global Gas Safety Service Enterprise' earning confidence from customers.

01 2007
January

Top Story

- KGS Ranked Among Leaders in PCSI for 2006

News Focus

- Aiming at Global Gas Safety Service Enterprise in 2007

KGS on the Move

- World-Class Gas Boiler Promotion Panel Set
- R&D Results of Membrane LNG Storage Tank Criteria
- '06 Excellent Gas Prevention Practices Contest
- Newly-Advanced Gas Safety Management Workshop
- Int'l Symposium with ISO Working Panel Members

New Technology

- Commercialization of Notebook PC Fuel Cell Samsung Electronics
- Gurbong Hanjin Manufactures DME Filling System

Events

- Presentation Session on 2006 R&D Results

Rules & Regulations

- City Gas Safety Management Regulations Revised

Rules & Regulations

City Gas Safety Management Regulations Revised

On December 4, 2006, the Ministry of Commerce, Industry and Energy (MOCIE) announced its revised Enforcement Regulations of the City Gas Business Act, the gist of which alleviates burdens of the business community through reasonable adjustment of previous safety-related technology criteria.

The ministry revised the regulations after reflection of recommendations from the Regulatory Reform Planning Corps. under the Office of the Prime Minister and city gas business circles.

On May 12, 2006, the planning corps recommended that execution supervision be exempted for short-distance piping work, such as low-pressure gas pipe inlets and simple pipe connections, in order to prepare the foundation for rapid gas supply to users and alleviate work executers' inconvenience. It also recommended that installation of gas breaker devices for pipelines of nominal diameter exceeding 65mm be allowed on the land of users as well as roadways to enable quick cut-off when emergency situations occur for prevention and spread of gas accidents.

After collecting recommendations from business circles, the ministry, in the revised enforcement regulations, relieved city gas firms and gas users of burdens as long as the safety of gas facilities can be secured, including exemption of duplicate installation of gas breakers if there is a device that can cut off gas within 50 meters of pipeline junctions at gas supply facilities and from external walls of gas pressure regulator rooms and underground gas using facilities, etc.

Under the revised enforcement regulations, the ministry classified the terminology of execution supervision into all-process supervision and partial process supervision in order to prevent confusion among work executers and gas users in interpretation of the terminology and also to resolve related civil petitions.

According to the previous regulations, issue of separate certificates was required when receiving completion inspection of changes in special gas using facilities or regular inspection. The revised regulations simplified administrative procedures by requiring only an endorsement on the back page of the first certificate, eliminating the need to get separate certificates.

In accordance with the revision of the Enforcement Regulations of the City Gas Business Act, the ministry now plans to promote revision of its 'Integrated Notice on City Gas Safety Management Standards,' while continuing systematic improvements for rational gas safety management.

