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Message From the President



KOSHA, leading the global culture of prevention

Many countries recognize that generating continuous improvement in working conditions is of paramount importance and try to put the priority of the occupational safety and health on national agendas. Also, the idea from the Seoul Declaration on Safety and Health at Work, "preventative safety and health culture" is a tool to enhance safety and health.

In the future, occupational safety and health has to be dealt with through the cultural approach. In that sense, all of us need to share the importance of occupational safety and health and step up our efforts to strengthen sustainable cooperation among national and international organizations and institutions.

KOSHA, Korea Occupational Safety and Health Agency, has been conducting various activities to let the whole world cherish the occupational safety and health, together with ILO, and ISSA since the Seoul Declaration adopted in 2008, which is the first safety and health charter in the world.

In particular, ministers of the labor across the world gathered on the occasion of the XIX World Congress on Safety and Health at Work in Istanbul, Turkey on 11 september 2011, to adopt "Istanbul Declaration of Ministers of Labour for a Preventative Culture" which is based on the principle of the Seoul Declaration.

KOSHA has established the ISSA International Section for a Culture of Prevention to encourage 44 international organizations such as DGUV, INRS, FIOH, NSCI and ASSE to participate in the activities of the section as part of its efforts to disseminate the culture of prevention around the world.

In addition, KOSHA has been preparing the 31st ICOH Congress seamlessly, which will be held in Seoul, Korea May 2015.

Now is the time to make the safe and healthy workplace affordable for workers at all levels and to lead the culture of prevention, putting top priority on the prevention principles. With that in mind, KOSHA publishes the annual report that presents what we have done to prevent accident over the past year.

I look forward to seeing that this report would help you understand KOSHA's activities for the protection of health and life of people, and help disseminate our good practices.

Baek. Hun-ki

President Baek, Hun-Ki
Korea Occupational Safety and Health Agency



Introduction to KOSHA



Korea Occupational Safety and Health Agency(KOSHA) is a government-funded public organization established on December 9, 1987 in accordance with the Korea Occupational Safety and Health Agency Act(enacted May 30, 1987 under Law No. 3931). KOSHA aims to contribute to the growth and development of the national economy by enhancing the safety and health of workers, and promoting the accident prevention activities of employers. KOSHA's work areas to effectively prevent occupational accidents include: checking safety and health conditions in workplaces; providing technical and financial assistance; providing education and training on occupational safety and health (OSH); developing and distributing OSH-related information and materials; conducting research and development(R&D) for the prevention of occupational injuries and illnesses, and so on.

■ KOSHA has been conducting occupational accidents prevention programs setting the major goal of: implementing customized projects for sectors which experience accidents frequently; strengthening locally oriented prevention activities; carrying out occupational health promotion activities for workers and building up safety and health capacity in a whole society.

■ To elaborate on KOSHA's key activities in 2011

First, KOSHA strived to dramatically reduce injuries in workplaces. To that end, we provided on-site technical assistance to extend accident prevention knowledge in relatively high-risk workplaces. For SMEs with poor working conditions, KOSHA provided facilities improvement funds to eliminate work hazards and create more pleasant work environment. For areas that have seen an increase in the number of fatal accidents, KOSHA implemented special measures on a temporary basis, and these measures have proven to be effective.

Second, to help enhance workers' health and prevent work-related illnesses, KOSHA has been supporting improvement of working environment, health management and project of preventing musculoskeletal disorders.

Third, KOSHA supported certification of OSH management system and establishing process safety management system especially for petrochemical complex that has high risk of major accidents such as gas leak, fire and explosion, in an effort to build up risk management system.

Fourth, to promote safety and health culture, KOSHA provided customized safety and health education with workers, supervisors, and employers while developing and distributing various safety and health media materials. Furthermore, to put together nation-wide accident prevention capabilities, KOSHA signed MOUs with 321 related organizations and carried out projects relating to safety culture.

Fifth, to establish strong basis for advanced research in OSH, KOSHA conducted research projects in various fields encompassing policies and systems, safety engineering, work environment, workers' health and so on. In addition, KOSHA conducted more specialized and substantive epidemiological study on work-related diseases. Also, there have been many studies on new chemical substances, while the information on the hazards and risks of these chemicals were made available.

Sixth, to reinforce collaborative efforts with international counterparts and better support OSH activities in developing countries, KOSHA concluded technical arrangements with many OSH organizations overseas. On the other hand, heading towards the 31st ICOH(International Commission on Occupational Health) Congress in 2015, KOSHA is making various preparation efforts to successfully host the international gathering.

*Objectives and
Directions for
Occupational
Safety and Health*

KOSHA

Highlights



산업재해예방
안전보건공단

Korean Version



Accident Prevention

KOSHA

English Version



*KOSHA unveiled
New Corporate Identity
and Visions*

On December 8, 2011, KOSHA unveiled its new corporate identity(CI), in an effort to reinvent itself as a professional body working together with not only professionals but also with the workers to prevent accidents at work.

The new cross-like symbol of KOSHA has been adopted to represent 'safety and protection', 'health and happiness'.

Along with the declaration of KOSHA's new CI, a new vision of KOSHA has been announced, which is 'A central and professional agency, working with the workers to prevent accidents at work'. KOSHA aims to reduce the rate of occupational injuries and illnesses to 0.5% level by 2014.

Total of occupational accidents for 2011 reduced in all index compared to 2010. The rate of occupational injuries and illnesses recorded 0.65% from 0.69% dropped by 0.04%p. KOSHA will strengthen prevention measures to keep the trend going on. As part of its efforts, it will diversify its businesses to support financial and technical aid for start-ups and small businesses with workers less than fifty, all of which witness more accidents. Also, KOSHA will focus its efforts to reduce the major fatal accidents.

*Rate of occupational
injuries and illnesses was
decreased*



KOSHA

Highlights



*KOSHA launched
a new international
framework for
prevention*

The Inaugural General Assembly of the ISSA (International Social Security Association) International Section for a Culture of Prevention, was held on September 12, 2011 in Istanbul, Turkey. With the launch of the new Section for a Culture of Prevention, KOSHA - the chair organization - built a network of 44 professional safety and health organizations and related government bodies in countries around the world including France, Finland, Germany, India, the US, China, Japan, the UK, etc. The Section's activities will focus on promoting a preventative safety and health culture through the implementation of the Seoul Declaration on Safety and Health at Work.

*Enforce the capability
of OH professional
organizations*

In 2011, KOSHA conducted test-evaluation towards providers of working environment monitoring service and special medical examination. Existing quality control program over the providers is limited to assess their capability of analysis. Therefore, KOSHA introduced a comprehensive estimation program to secure and enhance the reliability of the result from the providers of working environment monitoring service and special medical examination so that the agency finally improves the level of quality of OSH service providers. KOSHA applies the comprehensive estimation program to all providers from 2012.



KOSHA

Highlights



Enforce the accident prevention capability of stakeholders in the construction business.

KOSHA encouraged the stakeholders of construction business including construction clients, contractors and workers, to stimulate their self-regulatory activities on safety and health at work.

Due to the characteristics on construction industry, construction clients have the greatest influence on preventing accidents among the stakeholders. To make construction clients comply with OSH Act and enforce the accident prevention capability, KOSHA notified 415 public construction clients of their accident status. At the same time, the agency has developed KOSHA 18001 which is customized to construction clients, issued certifications to 10 companies, and implemented the follow-up management since 2003.

Contractors among the stakeholders of construction industry control and carry the construction directly. To enhance the accident prevention capability of contractors, KOSHA consulted them to improve the safety facilities at the construction sites, and notified them of converted rate

of injuries and illnesses of top 1,000 construction companies. In addition, KOSHA encouraged them to pass the KOSHA 18001 and hosted the workshops to boost safety awareness of the management.

To construction workers, KOSHA legalized basic OSH training to reduce accidents through the safety awareness improvement.

KOSHA was recognized as Clean Organization for Three Consecutive Years

The evaluation conducted on public agencies by the Anti-Corruption & Civil Rights Commission in 2011, revealed KOSHA was rated "excellent" under anti-corruption category, and rated "outstanding" in cleanliness category. KOSHA's endeavors to stave off corruption such as operating anti-corruption hot-line, and an agency-wide campaign and training to spread the culture of integrity were well recognized by the Commission. KOSHA has been awarded the high ratings for three consecutive years.





KOSHA

Activities

1. OSH Support for SMEs
2. Consulting Service to Enhance Occupational Safety and Health
3. Accident Prevention in Construction Industry
4. Accident Prevention in Service Industry
5. Education & Training on Accident Prevention
6. Development and Distribution of OSH Media Content
7. Systematic Management of Statistics on Occupational Accidents
8. Research on OSH and Other Activities in Specialized Fields
9. International Cooperation

1 OSH Support for SMEs



Small and medium-sized enterprises tend to have poor working conditions and therefore have relatively higher risks of occupational diseases than large enterprises. Against this backdrop, KOSHA provides consulting services towards these SMEs for workplace hazards and gives partial financial funds for necessary improvements through "Clean Workplace Program", in efforts to prevent accidents in workplaces.

KOSHA is focusing its financial support toward SMEs with less than 50 employees as they account for over 80% of workplaces in the manufacturing industry.

Moreover, enterprises are given access to loan services for more investment in OSH facilities.

When a workplace applies for "Clean Workplace Program", KOSHA provides consulting services on risk assessments for businesses with less than 50 workers. Based on the results, the OSH facilities are upgraded with the financial support worth up to KRW 20 million per workplace.

In addition, enterprises can have access to long-term loan services at low interest rates up to KRW 300 million per workplace and that loan services encourage them to purchase OSH equipment and facilities for the accidents prevention and better working condition.

Records of Financial Support by Years

(Unit : No. of sites, KRW 100 million)

Program	2011	2010	2009	2008	2007	2006	2005
Clean Workplace Program	7,884 (627)	4,882 (520)	4,831 (740)	9,794 (1,004)	9,847 (994)	9,508 (1,000)	10,428 (1,110)
Harmful Processes Improvement Program	-	449 (77)	584 (100)	531 (96)	470 (91)	467 (73)	510 (77)
Loan Services	954 (938)	712 (762)	728 (804)	826 (884)	878 (940)	948 (881)	1,040 (800)

* Amount of subsidy enclosed in parenthesis

2 Consulting Service to Enhance Occupational Safety and Health

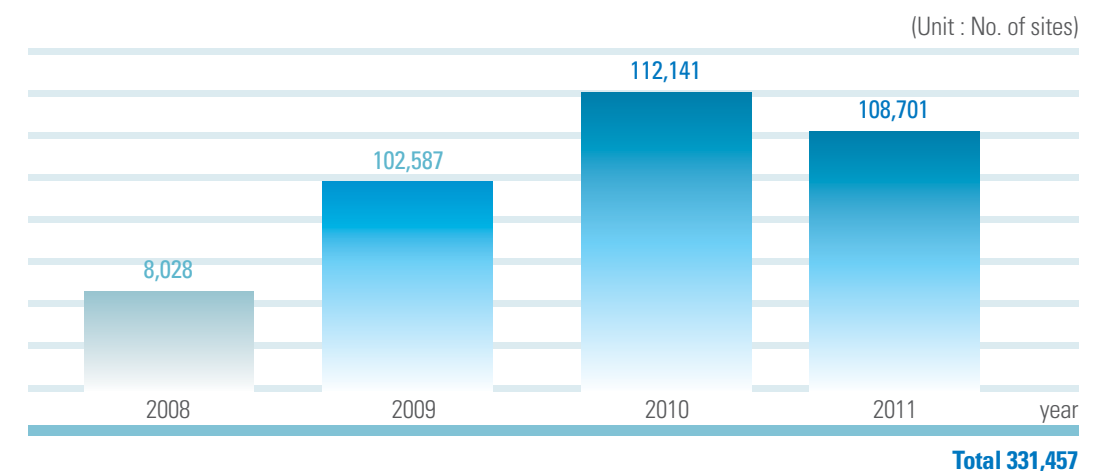


Providing technical support for the improvement of occupational safety and health has always been the core mission of KOSHA, which was established to contribute to Korea's economic development by enhancing workers' safety and health, and promoting accident prevention activities. To that end, various projects have been launched since 1988 in response to industrial changes.

Major projects currently underway include: risk assessment-based comprehensive OSH technical support for preventing conventional occupational accidents in order to enforce self-regulatory safety management in manufacturing sites of workers less than fifty; technical support for safety management of small-scale construction sites (less than KRW 300 million) to prevent conventional accidents, including slips & trips, collision, and being hit by falling or flying objects; managing working environment and workers' health in order to protect them from work hazards; preventing musculoskeletal disorders caused by handling heavy loads or repetition of simple tasks; and developing and providing Safety and Health Technology Standard (KOSHA Code) to support OSH activities in workplaces.

Conventional occupational accidents including crushes, falls, and slips & trips account for 90% of all accidents at work. To prevent such accidents, KOSHA provides technical support to high-risk workplaces that have potential work hazards. With the support from KOSHA these workplaces find safety solutions on their own and build self-regulatory OSH management system.

Consulting for Preventing Injuries at Work





Health protection
project for
workers in the
small-scaled
workplaces

KOSHA provides financial assistance to small workplaces with less than 10 employees for their environment monitoring and special health check-up. In 2011, the funds provided by KOSHA contributed to reducing occupational illnesses by ensuring the workers' good health.

Financial assistnace toward small-scaled workplaces in 2011

	Recipient of Financial Assistance	Amount of Financial Assistance
Work environment monitoring	10,704 workplaces	KRW 2,955 million
Special Medical Examination	78,163 workers	KRW 4,890 million

Furthermore, KOSHA provides basic occupational health services for 26,000 workplaces with less than 50 workers. The health services offered by KOSHA in 2011 include technical guidance on health management, measurements of cerebro and cardiovascular disease and health consultations for workers.

Comprehensive health management support for small-scaled workplaces in 2011

	No. of workplaces that received health management service	Amount of health management service	No. of technical guidance provided
Outcome	26,000 workplaces	KRW 5,860 million	92,610

KOSHA has opened three Occupational Health Centers to prevent occupational illnesses and contributed to enhancing the health of workers in the small scale companies. Centers provide basic occupational health services including occupational disease prevention consulting towards SMEs with less than 50 employees tend to have poor working condition.

Occupational Health Center for workers in 2011

(Unit : No. of workers)

Area	Western Gyeonggi	Incheon	Gwangju
Outcome	21,984	14,743	14,473



Technical
Assistance to
Prevent
Occupational
Illness

KOSHA extended OSH technical support toward 1,715 workplaces with work hazards, including noise, dusts, chemical substances and so on to reduce the workers' exposure levels.

KOSHA provided technical assistance toward 401 workplaces dealing with carcinogen and 541 worksites where asbestos dismantling operations took place, to prevent occupational cancer.

KOSHA issued Health Management Pocketbooks (6,126 issued as of 2011) for workers who had been exposed to carcinogen such as asbestos for certain period of time and evaluated the worker's exposure level with 5 steps to give the technical support. Retirees with Health Management Pocketbook can receive special medical examination on a yearly basis for their continuous health management and early diagnosis of possible work-related cancers.

To prevent confined space accidents, KOSHA extended technical assistance to 675 workplaces.

KOSHA selected 31 chemical substances that led to multiple occurrences of occupational diseases and conducted research on the route and method of their usage for four years starting 2006. Based on the analysis, KOSHA focused its technical assistance and prevention efforts toward 502 workplaces that deal chemical substances causing acute toxicity (Xylene, N-hexane, Diisocyanate) in 2011.

The list of chemicals surveyed

Year	Chemicals inspected	No. of Chemicals
2009	Cyclohexanone, Methyl Ethyl Keton, Phthalic anhydride, Trichloroethane, Xylene, Isopropyl alcohol, Aluminum, Antimony, Mercury, Cobalt, Ethylene oxide, Sulfuric acid, Talc	13
2008	Dye and Pigment, Acrylonitrile, Cadmium, Manganese, Chrome, Benzene	6
2007	Lead, Nickel, Acrylamide, Styrene, Formaldehyde, Toluene	6
2006	N-hexane, Diisocyanate, Trichloroethylene, Crystalline silica, Methyl bromide, Dimethylformamide	6

The results of the survey have been posted in the section of Korean Control Banding & Control Toolkits for Chemicals on the KOSHA website(www.kosha.or.kr). It aims to provide information on the hazards and safe management of the chemical substances to workplaces in Korea.

*Korean Control Banding & Control Toolkits for Chemicals : A web-based support program to help employers and workers find out the risk levels of their chemical processes on their own and to give them the access to the information on chemical hazards and their management.

In order to improve the reliability of the work environment assessments conducted by employers, KOSHA compared the assessment results that 345 workplaces conducted. The comparison helped to find out whether the work environment analysis had been properly done and whether there have been any errors in the measurements of exposure levels.

KOSHA established network with occupational health professional organizations to select the workplaces vulnerable to occupational diseases and conducted timely intervention support to 117 workplaces.

Preventing
Work-related
Diseases through
Health Promotion of
Workers



KOSHA has been facilitating health promotion activities voluntarily led by the management and workers, as it subsidised enterprises pursuing "Worker's Health Promotion"
- In 2011, KOSHA provided 122 workplaces with KRW 4.66million

To prevent musculoskeletal disorders (MSDs) that account for 78% of work-related diseases, KOSHA selected industries with high risk of MSDs, and conducted comprehensive risk assessments to prevent MSDs.

- 550 workplaces (18.2%) received "Technical support for the prevention of MSDs and survey on risky industries", which focused on ergonomic improvements. 2,465 workplaces (81.8%) benefited from "Technical assistant for the improvement on risk and hazard factors" which focused on assessment of works causing MSDs and improvement.

KOSHA supported various health improvement activities such as the prevention of cerebro and cardiovascular disease, job stress, MSDs as well as lifestyle diseases for 11,220 workplaces. After the implementation of these activities, their efficacy was tested using indicators such as improvements in workers' health.

Ensuring safety and health at workplaces requires the development of applicable OSH technical standards. To meet the needs for such standards, provisions about "Technical Standards Committee", the Article 27, were added to Korea's Occupational Safety and Health Act in January 1990, and KOSHA has been in charge of the Committee's operations.

The Technical Standards Committee consists of eight sub-committees on general occupational safety, machine safety, electrical safety, chemical safety, construction safety, occupational health management, occupational medicine, and industrial hygiene. Each of the sub-committee has about 20 members who represent workers, employers, government ministry, industries and academia, with expertise in OSH. On the other hand, "General Management Committee" takes charge of overall evaluation and reviews on technical standards.

KOSHA developed 809 OSH technical guidelines, which are available for use through both offline and online resources. These guidelines are updated in every five years to reflect new OSH issues.

Guidelines on Safety
and Health:
KOSHA Code

No. of KOSHA Code as of Dec.2011

(Unit : No. of guidelines)

Total	General Safety	Machinery	Chemical	Electricity	Construction	Health Management	Hygiene	Medicine	Risk Management
809	89	157	170	121	64	32	76	50	50

Nowadays, international standards are increasingly adopted as national standards. Against the backdrop, related international standards have been used as references when developing new technical guidelines in Korea. On the other hand, KOSHA participates as the representative of Korea's professional conventions in mechanical vibration(ISO/TC 108), air quality(ISO/TC 146), explosion-proof electrical equipment(IEC/TC 31), electrical safety of industrial machineries(IEC/TC 44), etc.



Test and Certification

Helping Workplaces to Establish OSH Management System: KOSHA 18001

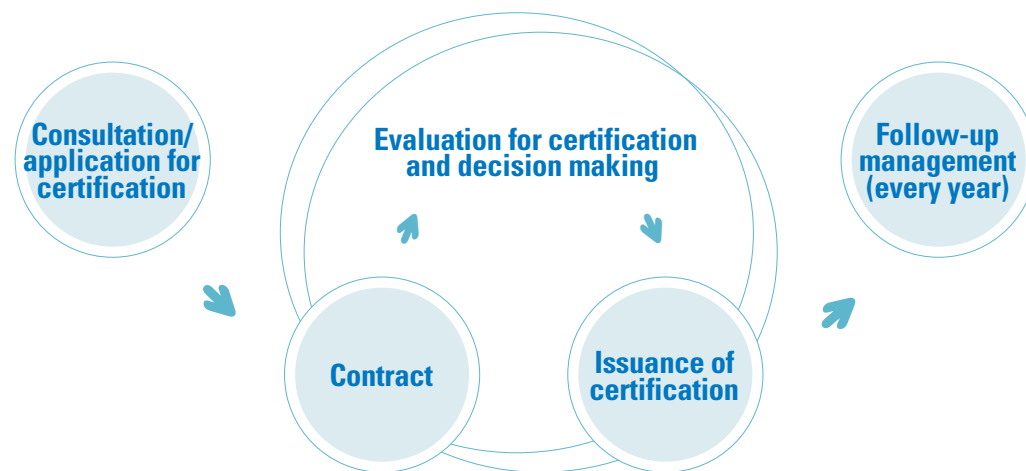
"Occupational Safety and Health Management System(KOSHA 18001)" is a system wherein the business owner reflects the safety and health policies on the management principles of the company and defines detailed guidelines and standards to enable workers to follow. Through the system, the company conducts self-evaluation of the safety and health management plan and makes improvements when necessary.

KOSHA started "KOSHA 18001" certification system in July, 1999, to encourage workplaces to comply with such OSH management system.

The certificate and the plaque of certification for KOSHA 18001 are awarded when the requirements for the certification standard are met following the evaluation of the safety and health management system at the workplace.

The key components of KOSHA 18001 are: assessment of initial status of the workplace; safety and health policy; planning; implementation; review and corrections; final review by the management. Methods of each component's application and execution are decided at the discretion of each workplace, considering size, management goal and environment, and potential risks.

■ Application Procedure



■ Outcome

In 2011, 314 workplaces received KOSHA 18001 certification. These workplaces had sound OSH management system in place and their application for acquiring the certification was passed after evaluation. As of 2011, 988 workplaces in Korea have KOSHA 18001 certification.



Process Safety Management(PSM), Quantitative Risk Management

■ Evaluation and On-site Check of PSM

In the case of oil refinery and petrochemical plants, major industrial accidents(e.g. fire, explosion, gas leak, etc.) bring huge adverse effects to not only workers at the plants, but also residents and the environment in the surrounding area.

PSM system requires workplaces operating hazardous and harmful facilities to submit process safety reports to KOSHA for deliberation and approval. The system has been implemented since January 1, 1996.

A total of 962 workplaces have been subjected to the Process Safety Management(PSM) system. They include 151 hazardous and harmful sectors such as crude oil refinery businesses and 811 sectors that process one or more of the 21 hazardous and harmful substances such as chlorine and phosgene more than the prescribed quantities.

■ Accident Investigation and Establishing Prevention Measures

If a major accident breaks out at a workplace under the PSM, it is necessary to identify the root cause of the accident in a systematic and scientific manner and avoid similar accidents to happen again.

To this end, accident cases are immediately summarized and distributed to chemical plants nationwide in order to prevent similar accidents. Afterwards, when detailed reports on the accident cases are issued complete with the root causes and prevention measures, these case reports are also made available to chemical plants in Korea.

Safety Certification and Inspection

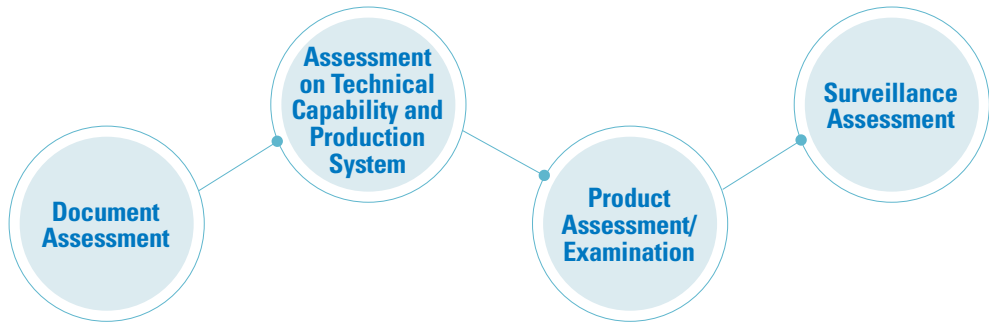
Safety Certification is conducted to ensure the safety of protective devices, equipment and 11 types of risky machinery or equipment such as crane, through the assessment in the designing, manufacturing and installment so that it could prevent injuries from technical failure of the machinery in the first place. Meanwhile safety certification is implemented to avoid accidents from machinery by maintaining regular safety assessment.

■ Safety Certification

1) The Mandatory Safety Certification System

The mandatory safety certification system aims to ensure that only safe products are manufactured and used. The safety certification system conducts comprehensive evaluation on the safety of the hazardous machinery, protective equipments including explosion-proof devices and personal protective equipment from their manufacturing and installation stage. Furthermore, the system evaluates technical capabilities and quality management system of the manufacturer.

Safety Certification Procedure



- Document Assessment: to ensure that specifications and manuals meet the certification standards and requirements
- Assessment on Technical Capability and Production System: to assess technical capability and production system of the manufacturer
- Product Assessment/ Examination: to ensure that manufactured products are in compliance with the required specifications and meet the safety certification standards.
- Surveillance Assessment: to conduct yearly or biyearly inspection on the manufactured products to find out whether the products meet certification standards.

Symbol of Safety Certification



2) Voluntary Safety Certification System

The S Mark is a voluntary safety certification system which helps manufacturers to ensure their own safety from the design and production stage. With the aim of achieving fundamental safety of industrial machinery and equipment, and to ultimately prevent occupational accidents the S Mark Safety Certification System was introduced in November, 1997.

S Mark Certification Procedure



- Preliminary Assessment: to check whether the machinery, equipment and/or protective equipment can be subjected for the S Mark Certification.

Symbol of S Mark



■ Safety Inspection

Safety inspection is conducted to secure safety of machinery and/or equipment, which are being used, with regular check accompanying necessary responses. The subjects for safety inspection are hazardous machinery and/or equipment such as cranes.

3 Accident Prevention in Construction Industry



Strengthening safety and health competency

KOSHA has been committed to preventing accidents in construction industry through strengthening safety and health competency of major stake holders including clients, contractors and workers. The agency especially focuses on customized prevention measures by size of the worksites.

■ Promoting customized OSH management system suitable for construction industry

- “OHS Management System” tailored to respective client, general contractor, and subcontractor, contributes to reducing accidents in construction sites.

(Unit : No. of companies)

	2007	2008	2009	2010	2011
Total	10(21)	11(32)	15(47)	16 (63)	16(79)
Client	1(6)	0(6)	0 (6)	2 (8)	2(10)
General contractor	4(10)	1 (11)	2 (13)	5 (18)	1(19)
Speciality contractor	5(5)	10 (15)	13 (28)	9 (37)	13(50)

* Enclosed in parenthesis indicate accumulated numbers since 2001

■ Outcome

The analysis of converted rate of injuries and illnesses of top 50 construction companies shows that of certified construction companies was maintained under 90% level compared to uncertified construction companies.

(Unit : %)

	2006	2007	2008	2009	2010
(a)Converted rate of injuries and illnesses of uncertified construction companies(within top 50 construction companies)	0.24	0.23	0.20	0.28	0.24
(b)Converted rate of injuries and illnesses of certified construction companies	0.21	0.21	0.16	0.21	0.14
Rate of injuries and illnesses(% ,b/a)	87.5	91.3	80.0	75.0	58.3



■ Stimulating self-regulatory OSH activities for general construction companies

- Notifying the top 1,000 construction companies of their rate of occupational injuries and illnesses to stimulate self-regulatory OSH activities
 - Announcement of the rate of injuries and illnesses: Calculated and notified on July 1 of each year
 - Provided records: Calculate converted rate of injuries and illnesses of previous year
 - The calculated rate of injuries and illnesses is notified to 84 government agencies including Public Procurement Service and reflected to Pre-qualification process of government-owned construction projects.
 - The converted rate of injuries and illnesses of each construction company is the determining factor during the pre-qualification process when public agency selects successful bidder.

■ Outcome

Converted rate of injuries and illnesses of top 1,000 construction companies is below 60% level of the converted rate of injuries and illnesses of the overall construction industry.

(Unit : %)

	2006	2007	2008	2009	2010
Rate of injuries and illnesses in Construction ndustry	0.72	0.67	0.64	0.65	0.70
(a)Converted rate of injuries and illnesses of the overall construction industry	0.95	0.87	0.83	0.84	0.87
(b)Converted rate of injuries and illnesses within the top 1,000 construction companies	0.45	0.44	0.43	0.50	0.41
Converted accident ratio(% ,b/a)	47.4	50.6	51.8	59.5	47.1

- In converted rate of injuries and illnesses in construction industry, one fatality is considered as 10 non-fatal injuries or illnesses

■ Enhancement of awareness of workers through Basic Safety and Health Training

- Safety and health training of which responsibility fell on each workplace in the past, is now conducted by professional training institute, under the bill declared on 25, July 2011. As construction workers move their job site frequently, so with this bill, KOSHA has contributed to preventing construction accident by enhancing awareness of working men and women in the construction worksites.
 - Workers have to receive four-hour training before they are involved in the job.

Setting selective concentration strategy by the size of worksite

■ Technical support for construction worksites sized over KRW 12 billion

- KOSHA runs the assessment and identification system with Harm and Hazard Prevention Plan of construction worksites over certain size, to ensure safety from the start.
- Contractors have to submit Harm and Hazard Prevention Plan to KOSHA which will review safety and health plan. Also KOSHA checks on a regular basis whether the safety and health plan is implemented to prevent possible accident at the worksite.

• Annual review of Harm and Hazard Prevention Plan

	2007	2008	2009	2010	2011
Assessment	2,254	1,729	1,828	2,354	2,753
Identification	7,025	7,265	5,327	6,375	7,326

■ Outcome

Workplaces that pass through KOSHA's assessment and identification maintain their accident rate at within 57% level.

	2006	2007	2008	2009	2010	2011
(a)Accident rate of overall construction industry	0.72	0.67	0.64	0.65	0.70	0.74
(b)Accident rate of worksites with KOSHA's assessment and identification	0.27	0.24	0.29	0.37	0.21	0.23
Accident level(% , b/a)	37.5	35.8	45.3	56.9	30.0	31.1

■ Technical support for small construction worksites

- KOSHA contributes to reduce construction accidents by commissioning competent private accident prevention institute to consult for small construction worksites sized less than KRW 300 million.
- Retirees who had worked in the construction safety sector could be rehired as supervisors or advisors through "Construction Worksites' Safety and Health Protector Program" to help reduce construction accidents.

• Annual result of technical support for construction worksites

	2007	2008	2009	2010	2011
No. of worksites assisted by commissioned institutes	4,000	4,375	7,195	26,627	26,494
No. of experts and worksites involved in the "Construction Workplaces' Safety and Health Protector Program"				57/ 13,828	126/ 32,185

■ Outcome

Among construction worksites sized less than KRW 300 million, worksites with technical support recorded lower accident rates(1.03) than those without support(1.81).

4

Accident Prevention in Service Industry



The remarkable growth of the service industry was accompanied by the increase in accident cases in the industry, accounting for 32.2% of all occupational accident victims(service industry accounts for 61.7% of all workplaces and 44.6% of workforce in Korea as of November, 2011). Since the beginning of the 21st Century, the rates of injuries and illnesses in Korea have recorded higher than 0.7% level. To achieve significant reduction in the rate of injuries and illnesses, KOSHA established "Service Industry Safety Department" in 2010, whose mission is to carry out prevention activities in the industry.

Prevention activities in the service industry focus on raising safety awareness through vocational training groups, and technical support and training programs for high-risk workplaces with frequent occurrences of accidents.

KOSHA launched "Service Industry Safety+ Campaign" in cooperation with non-profit organizations mainly targeting seven accident-prone occupations in the service industry and its workplace with less than 50 workers. The seven occupations are: building maintenance, hygiene, hotel & restaurants, wholesale & retail, healthcare & social assistance, education and business service. Visiting the target workplaces focuses on raising safety awareness by providing simple safety training and materials on accident protection, while creating a social consensus on the importance of OSH.

■ Outcome

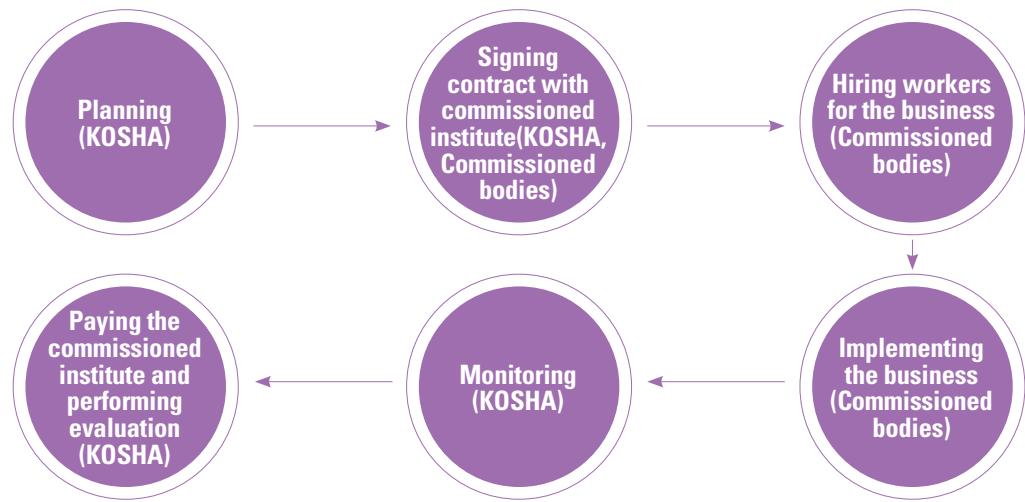
KRW 3.02 billion was invested to the Campaign that cover 250,000 workplaces in the seven service industry occupations.

	Total	Seoul Regional Office(RO)	Busan RO	Daegu RO	Gyeonggi-Incheon RO	Gwangju RO	Daejeon RO
No. of workplaces benefitting from the campaign by regional offices	250,000	86,000	32,000	20,000	65,000	23,000	24,000
Budget(KRW 1 million)	3,025	1,028	390	241	793	281	292

- Campaign period : March ~ December, 2011 (ten months)

Service Industry Safety+ Campaign

■ Campaign procedure



■ Key activities of the campaign



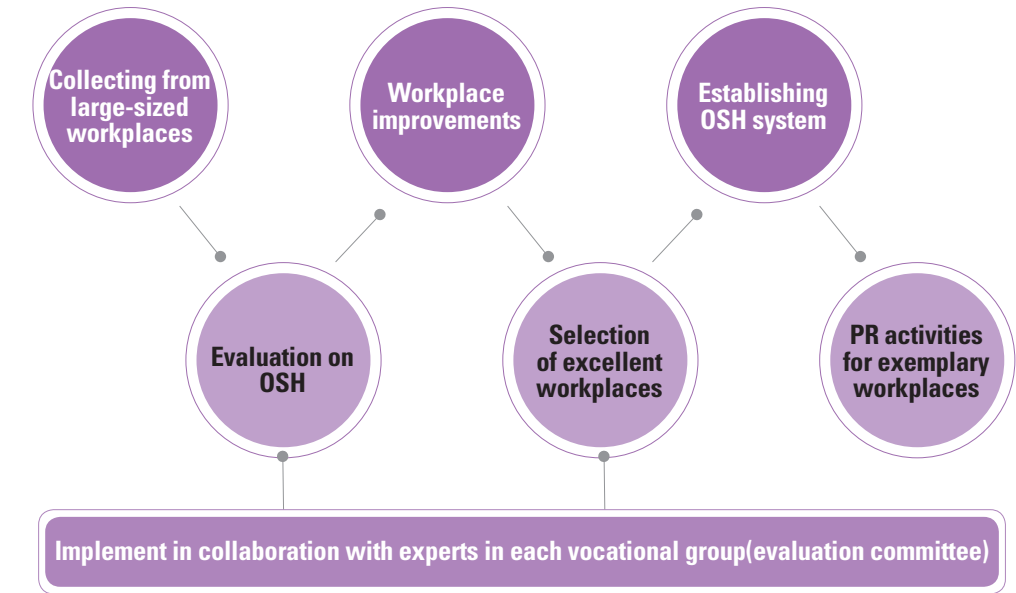
■ Outcome of the campaign

[The number of occupational injuries and illnesses in the seven service occupations decreased by 1,823 year-on-year(as of October 2011)]

- In Oct. 2011, 21,977 workers in the seven service occupations were injured or got disease at work, which is a decrease by 1,823 workers, year-on-year.
- The number of occupational injuries and illnesses in the business with Safety+ Campaign reduced by 1,762 accounting for 96.7% of the reduction of injuries and illnesses cases in the service sector.

	No. of occupational injuries and illnesses in the seven service industry occupations			No. of occupational injureis and illnesses in the business with 'Safety+' Campaign		
	Oct. 2011	Oct. 2010	outcome	Oct. 2011	Oct. 2010	outcome
Total	21,977	23,800	-1,823	5,814	7,576	-1,762
Seoul Regional Office(RO)	6,264	6,867	-603	1,508	1,958	-450
Busan RO	3,179	3,365	-186	824	951	-127
Daegu RO	1,711	1,807	-96	481	525	-44
Gyeonggi-Incheon RO	6,781	7,379	-598	1,712	2,549	-837
Gwangju RO	2,144	2,322	-178	675	856	-181
Daejeon RO	1,898	2,060	-162	614	737	-123

- KOSHA provided consulting services (Technical support, Training, Financial assistance, etc.) for service industry workplaces, which belong to the seven selected occupations: building maintenance, hygiene, hotel & restaurants, wholesale & retail, healthcare & social assistance, education and business service.
- The consulting services are provided through direct intervention of KOSHA experts, who make on-site visits and overall work-site evaluation. The evaluation is followed by work hazards identification and improvement measures.
- When removing work hazards and suggesting preventative measures, each workplace is encouraged to set its own deadlines and make self-motivated adjustments.
- Outcome: 4,700 workplaces in seven service occupations accepting the program
- Service procedure





OSH Training Support System

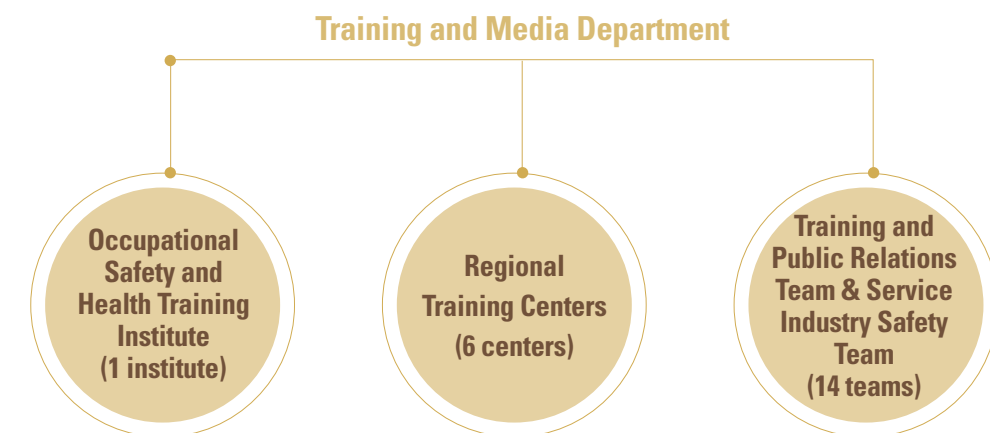
To make Korea healthier and create an advanced industrial society, KOSHA has developed and run a variety of education and training programs for each industry, by accident types, and regions through the analysis of previous accidents at work. The education and training programs have succeeded so far in raising safety awareness and preventing accidents.



KOSHA has consistently developed and run training courses on occupational safety and health pursuant to Article 31(Education on Safety and Health) and Article 32(Education of Safety and Health Manager) of the OSH Act. Customized training programs are available to different target groups such as the executives, supervisors, workers, and the vulnerable groups, thereby optimizing the effects of education and enhancing customer satisfaction.

OSH Education and Training Structure in KOSHA

KOSHA provides various OSH training programs. Training and Media Department is at the center of KOSHA's OSH education and training efforts and it takes charge of the overall development and running of training courses. Occupational Safety and Health Training Institute(OSHTI) offers specialized training courses for OSH supervisors. In addition, six Regional Training Centers operate 「regionally-based」 on-the-job training while 17 Training and PR Teams and Service industry Safety Teams in KOSHA provide training programs customized to the trainees' needs and wants.



Training Courses for Executives

KOSHA organizes workshops for the management of enterprises every year. The good of annual gathering is to convey the message that enhancing safety boosts the competitiveness of enterprises and to draw more attention and investment in safety. On the other hand, for selected high-risk workplaces, which employ less than 50 workers and suffer frequent accidents, KOSHA provides training on safety management, accident cause analysis by industries, and safety measures. Through these activities, KOSHA aims to bring down accident cases and help workplaces to establish their own safety management system.

	2011	2010	2009	2008	2007
No. of executives to the annual workshops	1,337	1,316	4,153	4,757	3,080
No. of trainees in high-risk, accident-prone workplaces with below 50 workers	160,812	248,542	21,994	22,252	22,406

Training Courses for Supervisors

KOSHA evaluates accident patterns in each region and industry to develop and give customized training courses and reduce accidents at work. In addition, to expand the opportunity of training to local areas, KOSHA has set up six regional training centers in the nation since 2006. The regional training centers offer training courses that are readily applicable to field supervisors. Also, comprehensive OSH consulting service based on risk assessments is given to respond to the safety needs of each workplace.

Course Description	2011	2010	2009	2008	2007
Basics	71,570	73,876	31,294	37,065	34,799
Practicum	36,878	24,626	20,155	17,612	14,193
Course for developing honorary inspectors	741	812	835	960	812

Training Courses for Workers

Departments within regional/area offices of KOSHA responsible for training and public relations offer training services to workplaces with limited access to training classrooms, trainers, and OSH education opportunities. For workers in these workplaces, especially those in the manufacturing and construction industries, KOSHA sends mobile safety training buses, fully equipped with audio-visual training equipment. In addition, small and medium-sized enterprises that lack knowledge in OSH and find it difficult to have in-house training system can request KOSHA for professional OSH instructors, free of charge. Also, after assessing regional characteristics of accident patterns and customers’ needs, KOSHA runs region-specific training courses.

Courses	2011	2010	2009	2008	2007
Region-specific courses(including consulting)	70,933	41,959	106,808	19,287	31,686
In-house training	288,580	506,771	259,499	159,436	126,426
Mobile safety training buses	61,734	67,822	80,495	105,463	113,764



Training Courses for Workers to Occupational Accidents

In Korea, the number of migrant workers is steadily rising. KOSHA’s comprehensive training support system, including vocational safety training and on-site training for industrial complexes with high number of migrant workers, are aimed at upholding these workers’ rights and preventing accidents at work. For example, safety education for students in technical high schools, Korea University of Technology and Education, and Korea Polytechnics heightened the safety awareness of future workforce of Korea and their activities were proved to be effective in preventing accidents. Also targeted safety training based on prevention measures and accident case studies in industries are being provided to aged and female workers to prevent occupational hazards such as MSDs and cerebro and cardiovascular diseases.

Targeted Safety Education	2011	2010	2009	2008	2007
Safety education for migrant workers	50,021	34,398	49,492	89,016	105,581
Safety education for future workforce (in vocational schools)	39,071	33,483	34,448	42,199	40,739
Safety education for aged workers	33,414	42,445	-	-	-
Safety education for female workers	32,802	24,441	-	-	-

KOSHA provides safety education and training to induce safe behavior in workplaces. Through the training, workers can have a hand on experience on the dangers of falls or falling objects. Such practical training is available in six training centers which offer more than 30 types of accident experiences to workers and supervisors including safety belts; anti-fall safety nets; safety helmets; fire fighting; emergency response and so on to help them understand the importance of safety in workplaces.



In addition, trainees can find out work hazards and the situations which could lead up to an accident using computer-based virtual reality technology in the Virtual Safety Training Center run by KOSHA. The Virtual Safety Training Center is available to all people free of charge and has been well received by many people who visited the center.

Course	2011	2010	2009	2008	2007
Safety education through experience	33,465	39,282	42,661	49,343	52,039

Training Courses to Develop OSH Experts

To develop experts in the field of OSH, OSHTI(Occupational Safety and Health Training Institute)runs basic and advanced training courses, and an on-line learning course.

The training curriculum aims to provide essential education to safety and health managers and supervisors in workplaces, who work to improve workers' health and prevent accidents and diseases.

In addition, education program through postal service and on-line are also available for those who cannot afford to participate in off-line classes due to time and financial constraints.

Courses	2011	2010	2009	2008	2007
Basic course	9,714	6,236	602	934	647
Advanced course	8,939	8,477	7,969	8,354	8,026
Distance learning(on-line)	14,860	11,535	10,518	8,981	7,055

Safety and Health Culture

To enhance safety awareness among employees and employers, and to help safety culture take root in the Korean society as a whole, KOSHA conducts PR campaign activities and safety culture movements using various media sources.

■ Nationwide Safety Culture Campaign

Since 1995, the Korean government has conducted nation-wide safety culture campaigns jointly with labor, management, public and private organizations, in order to spread the importance of safety in people's daily lives.

In 1996, the Committee for Safety Culture Campaign designated the 4th of every month as "Safety Check Day" to encourage the general public's participation in activities related to safety. The purpose of creating this day is to help people find out hazards on their own and build safe habits in daily lives.

In addition to commemorating "Safety Check Day", KOSHA develops and implements a variety of activities related to culture, which meet the needs of different local areas. Furthermore, in partnerships with NGOs, trade unions and industrial consultation bodies, KOSHA carries out many activities to raise people's safety awareness and expand the scope of safety-related movements to wider communities.

	2011	2010	2009	2008	2007
No. of businesses which run the "Safety Check Day"	1,140	1,297	2,356	2,120	2,707

■ The Occupational Safety and Health Week

Based on the provision stipulated in Korea's OSH Act, KOSHA and the Ministry of Employment and Labor designated the first week of July as the "Occupational Safety and Health Week" and carry out safety-related campaigns and activities. Designation of the week is to compliment those who have contributed to workers' safety and health and to build a nation-wide consensus through the exchange of related technologies and information.

The Occupational Safety and Health Week usually starts with an opening ceremony, followed by international exhibitions on safety and health, safety and health technology seminar in and outside the country, presentations on best practices of OSH, safety quiz contest for children, and so on in which employers, workers and citizens participate together.



The Occupational Safety and Health Week will mark the 45th anniversary in 2012. As the largest OSH event, it is gaining increasing number of participants from safety and health professionals to civic groups and people from every walk of life. The event has so far contributed to building safety culture around the nation raising the value of safety as the utmost priority.

■ Zero-Accident Program

• Summary of the Zero-Accident Program

The goal of this program is to find out every existing or possible risk factor to prevent it happen and finally eradicate all the occupational accidents.

For participating workplaces, KOSHA extends all necessary supports including training materials, training know-hows and consulting services.

• Certification of zero-accident

KOSHA has certification of zero-accident to encourage workplaces to be involved in the program actively.

Workplaces who want to be involved in the ZAP could set up plan, educate workers and promote the program all the way through their declaration. Once they reach the goal that they set, such as zero-accident days or hours, effectively, KOSHA recognizes their efforts to respond to possible hazards so that the workplaces can be motivated and promoted.

- Developing Methodologies for Zero-Accident Program
KOSHA provides a variety of methodologies for Zero-Accident Program such as technique considering risk factors by industry(200 methods for 42 industries), checklist for 740 types of machinery and equipment for risk factor management, checklist for 260 types of processing, safety psychology and other techniques.
- Participation in Zero-accident Program and Successful Workplaces

Participating workplaces by year(as of December, 2011)

Year \ No. of workers	Total	less than 50	50~99	100~299	300 or more
2011	6,076	4,963	525	438	150
2010	3,613	2,229	687	558	139
2009	2,706	1,526	556	496	128
2008	2,841	1,424	626	634	157
2007	2,898	1,525	592	647	134
2006	2,623	1,297	676	549	101
2005	2,658	1,172	765	549	172
Up to 2004	106,625	69,506	20,272	13,159	3,688
Total	130,040	83,642	24,699	17,030	4,669

Targets achieved by year(as of December, 2011)

Item	Total	50%	100%	Twice	Thrice	Four times	Five times	Six times or more
2011	1,937	2	648	329	222	108	144	484
2010	1,697	-	563	269	175	128	143	419
2009	1,610	-	579	239	204	117	117	354
2008	1,591	-	581	257	195	117	119	322
2007	1,516	-	596	281	186	80	116	257
2006	1,324	-	570	278	174	41	123	138
2005	1,201	-	605	238	154	0	127	77
Up to 2003	26,562	1,595	12,895	5,894	3,591	644	1,640	303
Total	37,438	1,597	17,037	7,785	4,901	1,235	2,529	2,354

■ Early Intervention Safety Training for the Youth

The development of safety awareness usually starts at home, progresses through school education, and completes in workplaces safety training. Therefore, safety training for children and students through pre-school, elementary, middle, and high school education system is critical as safety input in childhood has lasting effect through adult life and helps to build a person’s attitude toward safety.



Against this backdrop, KOSHA supports safety training in K-12 education system by training the teachers. This goes a long way in preventing safety accidents in schools and informing students of the importance of safety at work. Such early intervention helps students to value safety through their adult life and actively participate in prevention efforts.

KOSHA’s early intervention programs on safety include: research on OSH curriculum in schools, safety and health training for K-12 students and teachers, operation of safety and health education in pilot schools, and the development of training materials for education in schools.

Training programs	2011	2010	2009	2008	2007
Training safety instructors (No. of instructors)	2,086	67	1,035	1,156	2,072
Operation of pilot schools for safety training (No. of schools)	-	-	10	32	32

■ Promotion Activities for Accident Prevention

KOSHA provides information about safety and health through diverse media channels including TV, radio, and the Internet, which helps to reduce accidents at work and encourage people to value safe behaviors. “Escaping Crises Number One” is a TV program broadcast through KBS-2TV channel in Korea, and KOSHA sponsors the production of this program. “Escaping Crises Number One” provides easy-to-understand information about safety and health, and helps to instill safety culture to the general public.

- No. of episodes of “Escaping Crises Number One” sponsored by KOSHA

Course	2011	2010	2009	2008	2007
No. of episodes on OSH	12	12	12	12	12

In order to facilitate communication with people interested in OSH, KOSHA operates blogs and SNS accounts(blog : <http://blog.naver.com/koshablog>, facebook: <http://www.facebook.com/KOSHAnet> , twitter : <http://www.twitter.com/koshanet>).

“The Safety Exhibition Hall/ The Memorial Hall for the Seoul Declaration on Safety and Health at Work” at KOSHA headquarters shows eye-catching safety materials for visitors including employers, workers, students and OSH managers, and helps to raise safety awareness.

• PR Activities in KOSHA

Media	2011	2010	2009	2008	2007
Broadcasting(No. of episodes)	74	16	95	109	208
Outdoor billboards	140	56	56	227	310
Print media(No. of articles)	6,218	5,889	6,596	7,443	7,356
Exhibits(No. of visitors)	3,099	6,354	(under construction)	8,330	10,012



6

Development and Distribution of OSH Media Content

Targeting 1.6 million workers in industrial sites, KOSHA develops OSH media for each industry and occupation. The OSH media are easy to understand and readily applicable in workplaces, and provided through KOSHA’s website and printed materials.

• Contents developed in 2011 by KOSHA

	Reader-specific contents(1987)	Field-specific contents(2006~)	Industry-specific contents(2009~)
Target	migrant, aged, female workers	workers, supervisors	workers, supervisors
Contents	<ul style="list-style-type: none">• Support for migrant workers• Support for aged and female workers• Support for supervisors and managers• Using website and e-mail	<ul style="list-style-type: none">• Six fields<ul style="list-style-type: none">- machinery- electricity- chemicals- health & hygiene- construction- occupational safety	<ul style="list-style-type: none">• Manufacturing• Construction• Shipbuilding• Forestry• Harbor loading & unloading• Service (23 industries in total)
Formats	On/off-line files	On/off-line files	On-line files

Industry-specific Content

With the main focus on accident-prone industries, KOSHA develops OSH contents such as videos, animations, and leaflets to provide practical information in more effective manner. These contents are useful in workplace training and in raising safety awareness of workers, with the ultimate goal of preventing accidents.

- KOSHA signed agreement with workplaces in each industry to jointly develop and distribute OSH content.

※ 2,023 types of contents for 23 sectors (manufacturing, construction, forestry, shipbuilding, chemical products, and six major service sectors)

Field-specific Content

KOSHA develops and distributes educational content for six fields(general OSH, machinery safety, electrical safety, chemicals safety, construction safety, and industrial health and hygiene) to be widely used in various OSH training sessions conducted by KOSHA as well as each workplace.

※ 305 module type of contents, 1,040 sheet type and OPL contents and 108 instruction books.



OSH Content for Migrant Workers

Since 2000, KOSHA has been creating OSH content for workplaces that hire migrant workers. In order to protect 680,000 foreign workers in Korea, KOSHA develops 310 types of OSH materials (training books, posters, stickers, videos, etc) in 10 languages(English, Chinese, Indonesian, Bengali, Vietnamese, Uzbek, Thai, Sinhalese, Mongolian, and Pakistani) and distributes them.

Periodicals

KOSHA’s magazine, “Safety and Health” provides information on best practices of self-regulatory OSH management, the latest accident prevention technologies, international OSH trends, and major accident cases. The monthly magazine is distributed to medium- to large-sized workplaces, honorary OSH inspectors, OSH organizations, libraries and media outlets.

Online OSH Content

Contents in digital forms are distributed through e-mail, blogs and widgets to help self-regulatory OSH activities in workplaces.

- KOSHA's web magazine "WiSH" offers a wide range of OSH contents such as videos, animations, and major accident cases. In addition, workplaces across the nation and general public can subscribe to KOSHA's e-mail news service.
- KOSHA’s blog provides information on OSH through UCC(user-created content), photos, and videos to raise safety awareness on a nation-wide level in a familiar way.
- “Safety and Health Widget” is an on-line service, which provides access to the latest OSH materials, news feed on major accident cases, and real-time weather information for OSH managers, workers, and the general public.

KOSHA’s website(<http://www.kosha.or.kr>) provides accident prevention information to outside users such as OSH manager in workplaces, workers, and the general public. In addition, for effective implementation of accident prevention tasks, KOSHA offers enterprise-wide information portal system “Nanuri” for its employees.

- KOSHA recently upgraded its website to offer better access and more useful information. Also, the website improved its accessibility towards people with visual disabilities so that all the visitors of the website can enjoy the information it offers without any barriers.

In addition, “Safety and Health Widget”- an application installed in personal computers to provide information on OSH- was developed to help users have access to a variety of information KOSHA offers without having to actually visit the website. The widget helps people access to OSH information faster and more conveniently.



- Information provided through the Widget
- Most recent and finest media materials of each industry, topic, and medium.
 - KOSHA's notice board and news feeds of major accident cases
 - Regional weather forecasts and display of safety messages

KOSHA consolidated the multiple number of websites into one integrated website. The integrated site offers search option, database for each industry, topic and medium, thereby allowing website visitors to easily and quickly find the information they need.

- To help the employees in KOSHA implement accident prevention activities in an effective manner, KOSHA established ERP(enterprise resource planning) system with the main focus on management and operation support. The agency also improved the system by setting up the information system that integrates business and management database. In 2010, a system which links work tasks and work-related knowledge was developed and applied to 16 areas of tasks. This enabled workers to find the information related to their own work areas more easily. Also, the ERP system provides useful information about related legislations and regulations. The effective system brought about a huge change in the operational management within KOSHA while enhancing accident prevention services it offers to outside users.



7 Systematic Management of Statistics on Occupational Accidents



Analysis of Accident

KOSHA analyzes the results of workers' medical check-ups and the data on occupational accidents for each industry, accident type and the cause. Based on the systematic analysis and management of the data, KOSHA makes accident prevention policies aimed at protecting the lives and health of workers. The data KOSHA gathers and produces provide the most basic means to plan and implement accident prevention activities.

For workplaces covered by the Industrial Accident Compensation Insurance Act, KOSHA analyzes occupational fatalities and non-fatal injuries, which require four or more days away from work. The occupational accidents are investigated by each industry type, workplace size, geographical region, accident type, and disease type on a quarterly basis.

※ Legal basis : General statistics as per Article 18 of the Statistics Law(approval no. 11806)

Analyzing Accident Causes

Cases classified as occupational injuries or illnesses by the Industrial Accident Compensation Insurance Act go through indepth analysis to investigate their root causes on yearly basis. The analysis focuses on the trigger of the accident or diseases, the work involved, injury type, affected body part, employment status and so on.

For occupational injuries, investigators select 10% sample out of all cases. After selecting the sample accidents, they look at the accident reports and conduct telephone and face-to-face surveys. As for occupational illnesses, all cases are carefully looked at together with telephone and face-to-face surveys biennially. Exceptions are lower back pain and cerebrovascular disease, of which only 30% of the cases are analyzed.

※ Legal basis: Designated statistics as per Article 18 of the Statistics Law(approval no. 38001)



Results of Workers' Health Examination

KOSHA analyzes the results of workers' health examinations every year, which are conducted in accordance with the Occupational Safety and Health Act. Based on the data collected, KOSHA finds out the share of workers with diseases(both work-related and non-related diseases), as well as risk factors, high-risk occupations and industries, follow-up measures and so on.

※ Legal basis: General statistics as per Article 18 of the Statistics Law(approval no. 11809)

Survey on Work Environment

Data on work environment and the information on workers are collected through the national census. Based on the data, KOSHA analyzes workforce structure, physical work hazards, communication within an organization, socio-psychological factors, demographic characteristics and so on.

※ Legal base: General statistics as per Article 18 of the Statistics Law(approval no. 38002)



OSHRI(Occupational Safety and Health Research Institute) was established in 1989 as the government funded institute with the necessity of the professional investigation and research institute to support occupational injuries prevention activities effectively. The OSHRI not only conducts safety and health research as the public research institute but also performs its own professional projects such as work-related illnesses epidemiological surveys, management of analysis and measurement organizations, evaluation of hazardous chemical substances, certification of safety guard and other industrial machinery and occupational accidents statistics, to contribute to protecting lives and health of workers. OSHRI aims to reduce occupational injuries and illnesses through implementing protection activities commissioned by the government and performing research so that it could ultimately lay a firm ground to help working men and women have a prosperous and healthy lives. To that end, OSHRI is working hard to be fitted with the purpose of establishment by fulfilling its role in conducting researches in a responsible and useful manner.

Research on OSH

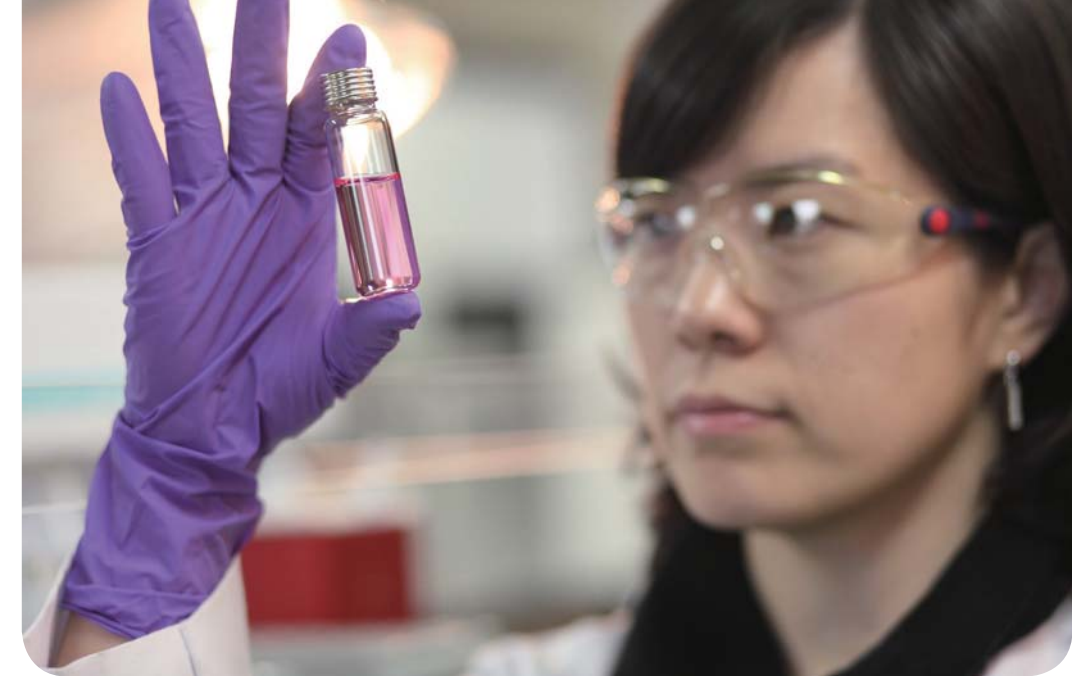
Safety Management & Policy Research

Policy-making and improvements for occupational accident prevention, linking accident prevention activities with social issues, maximizing the effects of prevention efforts are some of the areas of research OSHRI conducts. In addition, OSHRI is at the center of organizing activities that are necessary to establish and implement mid-to long-term goals in OSH research.

- Research and analysis of trends on OSH policies and institutions
- Study of the social science and legal aspects of OSH
- Theoretical study on safety management system
- Planning mid- to long-term goals in OSH research

Occupational Safety Research

The Occupational Safety Research is performed to find out causes with analysis of the accident and ultimately to come up with practical prevention measures. The research projects aim to provide scientific solutions by analyzing the machineries and facilities and investigating risk factors. And also through the analysis on each industry(e.g. manufacturing, construction, service) and each sector, OSHRI develops guidance, safety systems and protective devices that can be adopted immediately in the industrial sites.



- Research on prevention measures for frequent occupational injuries
- Research on prevention of accidents in manufacturing, construction and service industries.
- Investigation and analysis on the causes of fatal occupational accidents.

Work Environment Research

OSHRI performs research in various areas including techniques to manage working environment, level of exposure to the working environment and its measurement, localization of working environments' assessment and analysis tool, methodologies' development of hazardous factors' analysis, assessment and management of special working environment. More specific jobs the OSHRI does are below:

- Research on safety and health issues regarding new materials and new businesses.
- Research on technologies to measure and assess chemical, physical, and biological hazards
- Research on work environments and the characteristics of exposure to hazards
- Research on health hazards evaluation at work
- Research on asbestos and its exposure

Prevention of Occupational Diseases and Research on Workers' Health

OSHRI conducts study to find out the causes of occupational diseases while performing research and health examination to protect health of workers in the workplaces under the goal of assessment and improvement of OSH policies and measurement.

- Research on developing tools to control occupational disease and improve working environment
- Research on risks of future industries and risks from change of occupational employment and following prevention measures
- Research on work-related illnesses in the unknown industry and laying the foundation for occupational diseases prevention.

Research on Chemical Substances

OSHRI conducts research on risks of chemical substances to protect workers from influence of the chemical materials and injuries.

- Research on domestic management of chemical substances and effectiveness of information system
- Research on toxic materials’ mechanism and their hazardous effect
- Analysis on physical and chemical characteristics of chemical substances, and risk assessment on chemicals-related fires and explosions.

The following records are the result of research works OSHRI accomplished in 2011. In the broad field of safety and health, OSHRI discovers new research areas and studies them to meet the needs of the society and lay the foundation for further research. Also, OSHRI seeks to gather its capabilities in conducting proactive research on accident prevention in new and emerging industrial fields, which will gain more importance in the future.

Areas of research conducted by OSHRI in 2011

	Total	Research on Occupational Accident Prevention				
		Safety management	Safety engineering	Work environment	Prevention of occupational disease	Chemical substances
No. of research projects	72	11 (15.3%)	12 (16.7%)	13 (18.1%)	13 (18.1%)	23 (31.9%)



In addition to numerous research projects, OSHRI works on the following areas to prevent occupational accident and promote workers' health.

Epidemiological Survey on Work-related Illnesses

In accordance with Article 43, paragraph 2 of OSH Act, OSHRI conducts epidemiological surveys through which researchers diagnose work-related illnesses and identify causing factors so that they could find out correlation between disease development and causing factors and finally come up with prevention measures. In accordance with Article 107, paragraph 2 of the Enforcement Regulations on the OSH, workers, employers, the heads of regional labor offices, and other third parties may request upon the epidemiological surveys. Also, researchers can designate targets of the survey on their own to prevent illnesses.

Epidemiological surveys conducted by OSHRI in the past five years

(Unit : No. of survey)					
	2011	2010	2009	2008	2007
Total	88	82	85	86	92
Upon requests (occupational disease)	86	80	80	82	87
Voluntary surveys (preemptive prevention)	2	1	5	4	5

Work-related Illnesses Monitoring System

OSHRI runs the work-related illnesses monitoring system to identify mechanism of work-related diseases, respond to the exposure to hazardous factors and establish prevention measure. Under such purposes, OSHRI collects and analyses information and develops technologies.

As of now lung cancer, hematopoietic cancer, mesothelioma, and needle stick injuries are well handled through workplace-focused management system by each region while central management headquarters back up each region's monitoring system.

Quality Control on Private OSH Service Providers

To ensure the quality of private OSH service providers, OSHRI examines their capabilities in conducting various measurements and tests related to work environment. The quality control program on private OSH service providers are categorized into 5 different areas and the capabilities of these providers are tested once or twice every year.



Private OSH service providers participating in quality control program in 2011

(Unit : No. of survey)

	Specialized medical Checkup			Work environment measurement	Asbestos
	Analysis	Pneumoconiosis	Hearing		
No. of private OSH service providers	105	178	140	144	184

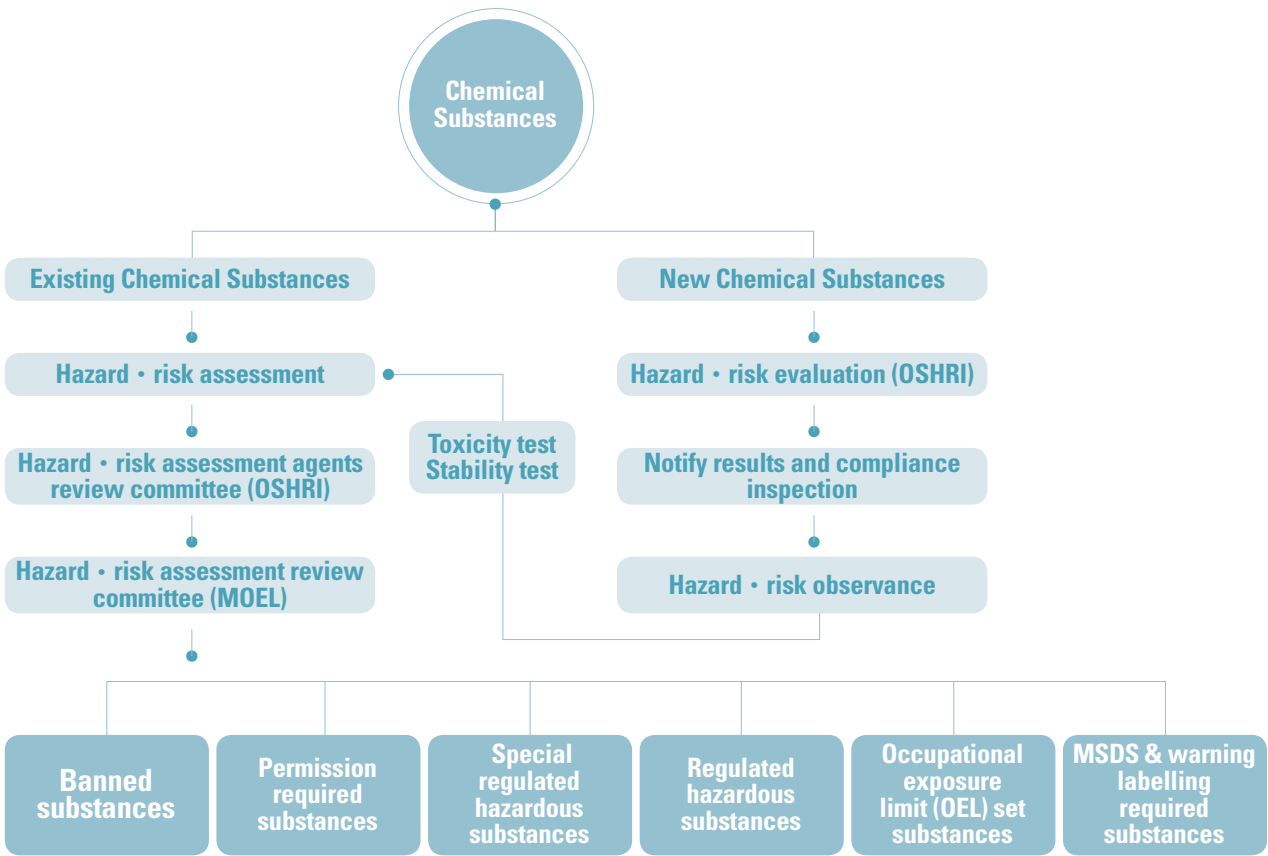
Distribution and Management of the Chemical Data

OSHRI offers GHS-compliant MSDS(Material Safety Data Sheets) and classifications on more than 14,700 chemicals on its website. The MSDS Editing Program, which has been developed by OSHRI, is also available to workplaces to help them classify chemical hazards more easily and guide them to produce warning signs.

*GHS: Globally Harmonized System of Classification and Labelling of Chemicals

Assessment on Chemical Hazards and Risks

OSHRI conducts HREC(the Hazard& Risk Evaluation of Chemicals) which reflects risks and the level of exposure and volume of distribution of chemical materials used in Korea, which are suspected to cause health hazards when workers are exposed to them. In addition, the institute reviews the Occupational Safety and Health Act through social and economics assessment to strengthen the foundation of safety monitoring. Furthermore, OSHRI’s risk assessment puts more emphasis on the materials with high level of carcinogen, reproductive toxicity and hazardous through customized risk assessment.



Assessments on physical risks and safety of chemical substances

OSHRI operates an internationally qualified testing facility recognized by KOLAS(Korea Laboratory Accreditation Scheme) to produce credible data of the physical hazards of the chemical substances. Furthermore, through hazard tests and risk assessment on chemical substances, OSHRI strives to prevent related accidents and investigate the causes.

Groundwork for OSH Research

OSHRI publishes monthly magazine titled “OSH Brief” to help leading groups in society and concerned members of the OSH industry better understand OSH trends. Another notable accomplishment of OSHRI is the publication of SH@W(Safety and Health at Work) in every quarter(March, June, September and December) as part of efforts to contribute to globalize the research.

9 International Cooperation



Over the last year, KOSHA introduced advanced technologies in OSH through more consolidated cooperation with international organizations such as ILO, WHO and 47 accidents prevention organizations from 24 countries around the world. As a responsible member of the OECD, the Korean government and KOSHA continue to implement technical programs for developing countries to assist their accident prevention efforts.

Cooperation with International Organizations and Accident Prevention Institutes

KOSHA engages in joining projects and research activities with widely-known accident prevention institutes across the world including NIOSH and CSB of the US, JISHA of Japan, and PTB of Germany to upgrade the overall level of prevention technology. In addition, KOSHA works together with international organizations like ILO, WHO, EU-OSHA, and APOSHO to play an important role demanded by the international community.

- NIOSH: National Institute of Occupational Safety and Health
- CSB: U.S. Chemical Safety and Hazard Investigation board
- JISHA: Japan Industrial Safety and Health Association
- PTB: Physikalisch-Technische Bundesanstalt
- ILO: International Labour Organization
- WHO: World Health organization
- EU-OSHA: European Agency for Safety and Health at Work
- APOSHO: Asia Pacific Occupational Safety and Health Organization



■ Operation of Information Center

As the national center of ILO-CIS, KOSHA gathers international news on OSH and publishes them on monthly and bi-monthly basis, to be utilized by workers in industrial sites and individuals who seek information in the field of occupational safety and health.

The weekly "Global Newsletter on Safety and Health at Work" consists of various information released by OSH organizations abroad, which helps readers of the newsletter understand global trends. The newsletter is comprised of major global trends in OSH, news briefs, latest publication, accident cases and key events. This newsletter also helps domestic companies set up OSH strategies with the information on local OSH system when they plan to advance into developing nations.

In addition, KOSHA publishes English newsletter every bi-month. The English newsletter, targeting audience from other countries, contains information about Korea's OSH activities and accident cases. KOSHA also distributes domestic OSH policies in languages of developing countries to help them build up their OSH system.

Meanwhile, the International Occupational Safety and Health Information Center collects and distributes the letter consists of short stories on international OSH, recent safety and health data, and international OSH events. Subscription of the letter is available through Help Desk of the overseas OSH information section on Korean version of KOSHA website.

The Seoul Declaration on Safety and Health at Work was adopted at the Safety and Health Summit of the XVIII World Congress in Seoul, Korea on June 29, 2008.

Recognizing a safe and healthy working environment as the most fundamental right of workers, the Seoul Declaration is committed to mitigating workers' suffering and contributing to social welfare through concerted efforts made by the labor, management, government and society. The Seoul Declaration, as the first universal charter in its kind, opened a new chapter in the history of occupational safety and health.

Seoul Declaration on Safety and Health at Work

So far, ILO, ISSA, and KOSHA have launched a variety of activities to expand the Seoul Declaration worldwide.

- Organized International Joint Committee and Joint Executive Secretariat of the Seoul Declaration from ILO, ISSA and KOSHA
- Launched 'the Implementation Council of the Seoul Declaration' on 17 November 2010
- Opened the Memorial Hall for the Seoul Declaration in April 2009
- Launched the official website (www.seouldeclaration.org) in November 2009

And on many other OSH events and conferences, statements in support of the Seoul Declaration were signed

- Canary Islands Statement (in March 2009) - Spain
- Dusseldorf Statement (in November 2009) - Germany
- Mauritius Statement (in April 2010) - Mauritius
- Regional OSH Action Plan based on the Seoul Declaration (in May 2010) - Republic of Srpska
- International Seminar on the Best Practice for the implementation on the Seoul Declaration (in July 2010) - Korea
- Beijing Statement (in September 2010) - China
- Dresden Statement (in February 2011) - Germany
- Kayseri Statement (in May 2011) - Turkey
- Istanbul Declaration (in September 2011) - Turkey

Efforts to promote and implement the Seoul declaration led to the establishment of the ISSA International Section for a Culture of Prevention.

It was established by the Bureau of International Social Security Association (ISSA) in June 2011, and became the 12th International Section of the ISSA's Special Commission on Prevention.

The Inaugural General Assembly of the ISSA Section for a Culture of Prevention was held on the occasion of the XIX World Congress on Safety and Health at Work in September 2011, in Istanbul, Turkey.

KOSHA is the chair organization and the members of the section are 44 professional safety and health organizations and related government bodies in countries around the world including China, France, Finland, Germany, India, Japan, the UK, and the US, etc.

The objective of the Section is to promote a preventive safety and health culture through global collaboration in order to achieve the objectives of the Seoul Declaration on Safety and Health at Work.

The Section's activities will :

- Arrange support events to promote the values and objectives of the Seoul Declaration
- Organize conferences, symposia and seminars to facilitate the exchange of knowledge and experience on a prevention culture
- Establish working groups to address relevant topics raised by its member

To join the International Section, please contact :

Secretariat of the ISSA International Section for a Culture of Prevention
Korea Occupational Safety and Health Agency (KOSHA)
478 Munemi-ro, Bupyeong-gu, Incheon 403-711, Republic of Korea
T: +82-32-5100-748, E: overseas@kosha.net

*The ISSA
International Section
for a Culture of
Prevention*



Bureau member organization

- Chair
Korea Occupational Safety and Health Agency (KOSHA)
- Vice-chair
German Social Accident Insurance (DGUV)
Institut National de Recherche et de Securite (INRS)
Finnish Institute of Occupational Health (FIOH)
National Safety Council of India (NSCI)
American Society of Safety Engineers (ASSE)
- Consultative Capacity
Mr. Seiji Machida (Director of SafeWork, ILO)
Mr. Hans-Horst Konkolewsky (Secretary General, ISSA)



Appendices

1. Statistics on Occupational Accidents in 2011
2. Finance
3. Organization Chart
4. History
5. Contact Point
6. Branch Office



1

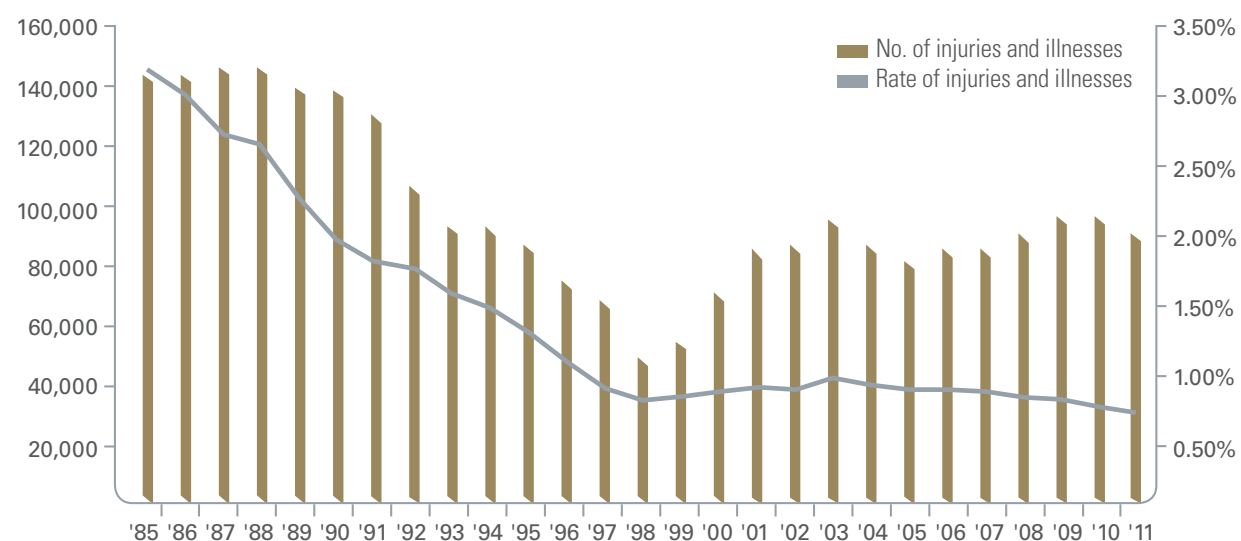
Statistics on Occupational Accidents in 2011



Summary

- In 2011, there were 14,362,372 workers working in 1,738,196 workplaces covered by the Industrial Accident Compensation Insurance Act. Among them, 93,292 workers fell victims to occupational accidents, which required four or more days away from work. Korea's rate of occupational injuries and illnesses in 2011 is 0.65%.
- Compared to 2010, the number of workers increased 1.15% and the number of injuries and illnesses decreased 5.43%. The rate of injuries and illnesses decreased 0.04%p.
- The number and rate of injuries and illnesses were constantly decreasing until 1998. However, the International Monetary Fund's intervention to Korea's economy in 1998 and 1999 caused the dramatic changes in records related to occupational accidents. On the other hand, the number of injuries and illnesses increased dramatically since 2001 as the coverage of Industrial Accident Compensation Insurance Act was expanded in July, 2000 to include all workplaces employing at least one worker.

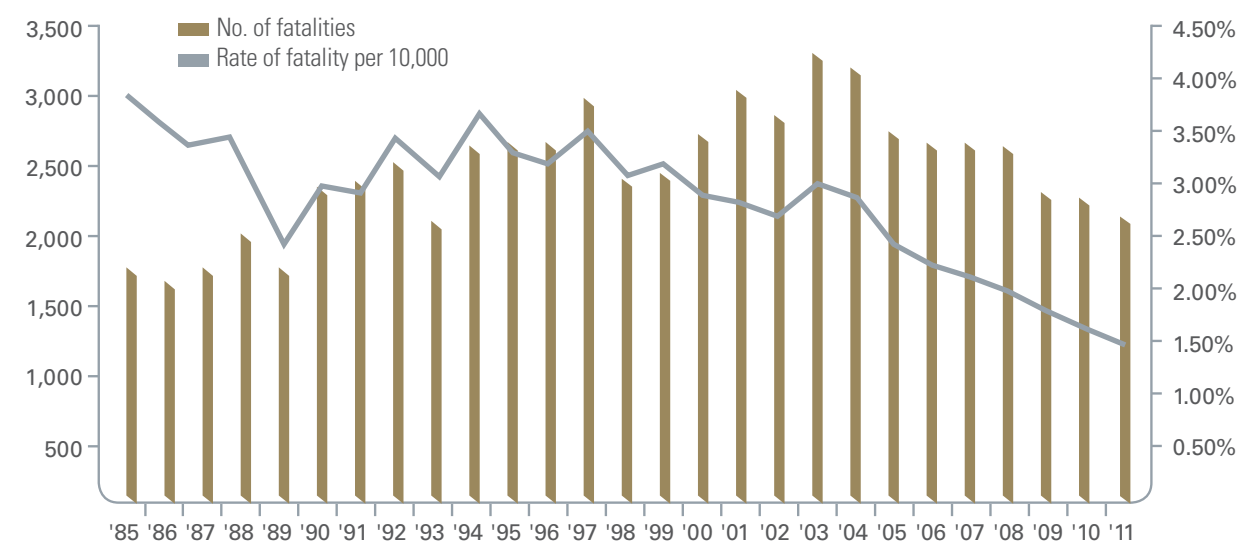
Number and rate of injuries and illnesses by year



Status of Occupational Fatalities

- In 2011, the number of occupational fatalities reached 2,114. The number of fatal injuries were 1,383 and the number of fatal illnesses were 731.
- The rate of fatality per 10,000 were 1.47 in 2011, which is a year-on-year decrease of 0.08%p(1.55%p in 2010). 452 workers died of fall from the height, 379 workers died due to pneumoconiosis, and 301 died due to cerebro and cardiovascular diseases.
- The number of fatalities in workplaces peaked to decrease since 2004. The rate of fatality per 10,000 has decreased since 1994.

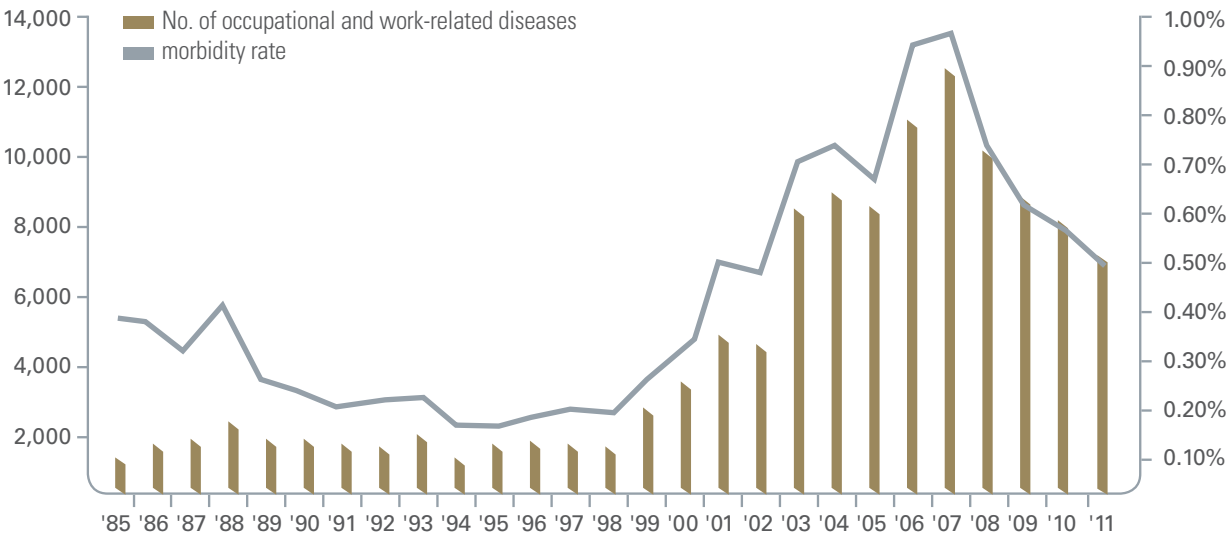
No. of fatalities and rate of fatality per 10,000 workers by year



Status of Occupational Illnesses

- In 2011, there were 7,247 reported cases of occupational illnesses(including fatal illnesses). The data in 2011 shows a 7.13% decrease from 7,803 in 2010.
- Out of the cases, 1,592 were occupational diseases, a 1.02% rise(or 16 cases) in 2011 from 1,576. The number of work-related diseases dropped to 5,655 from 6,227, which is a 9.19%(or 572 cases) decline.

No. of occupational illnesses and morbidity rate by year



* Occupational Accidents Indicators

- Rate of injuries and illnesses : (Number of injuries and illnesses / Number of workers covered by the Industrial Accident Compensation Insurance) × 100
- Rate of fatality per 10,000 workers : (Number of fatalities / Number of workers covered by the Industrial Accident Compensation Insurance) × 10,000
- Morbidity rate : (Number of illnesses/ Number of workers covered by the Industrial Accident Compensation Insurance) × 1,000

2 Finance



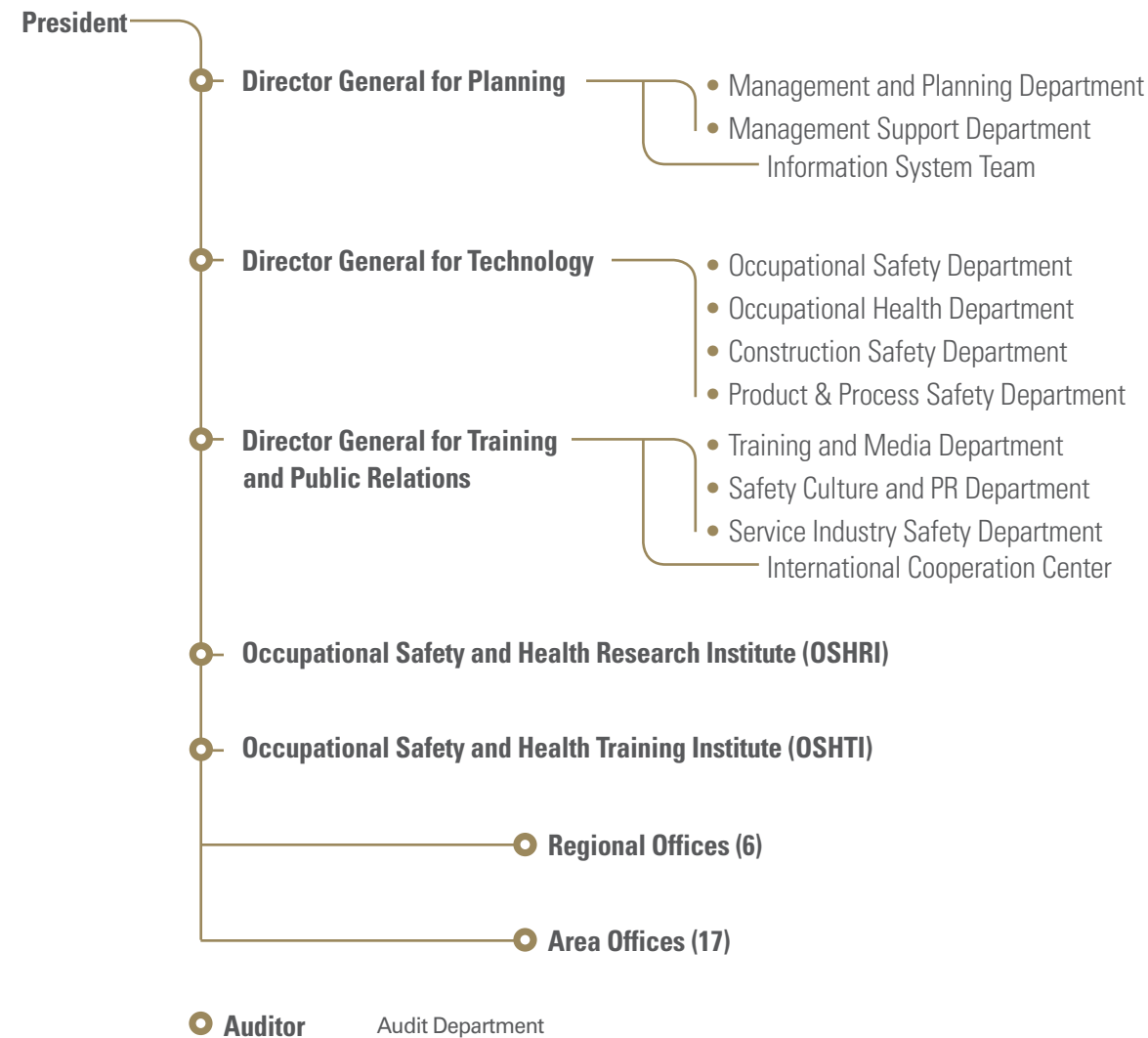
(Unit : KRW million)

		2010 (2010.1.1-2010.12.31)	2011 (2011.1.1-2011.12.31)
Revenues	Funding from the government	148,817	162,765
	Government subsidy	60,556	62,725
	Share and transfer income	-	-
	Referral and monopoly income	-	-
	Income	9,873	10,431
	Debts	-	-
	Balance brought forward	5,829	7,520
	Miscellaneous	-	-
	Total Revenue	225,075	243,441
Expenditure	Operating expenses	122,680	134,113
	Staff costs	79,855	87,880
	Ordinary operating expenses	13,083	12,938
	Balance carried over	9,457	8,510
	Miscellaneous	-	-
	Total Expenditure	225,075	243,441

3 Organization Chart



1. Organization : 5 executives, 10 departments, 11 teams, OSHRI, OSHTI, 23 regional / area offices



2. Number of Staff

Total	Headquarters	OSHRI	OSHTI	Regional / Area Offices
1,315	188	140	52	935

4 History



Foundation Phase - 1987~1990

- December, 1987 : Korea Occupational Safety and Health Agency (KOSHA) was established
- July, 1989 : Occupational Safety and Health Research Institute was established

Take-Off Phase - 1991~1994

- October, 1991 : Korea-Germany Occupational Safety Cooperation Meeting was held
- February, 1992 : Korea-Japan Cooperative Meeting on Occupational Disease was held
- August, 1992 : Tripartite Meeting to Creating Low-Cost, Highly-Effective Zero-Accident Workplaces was held
- August, 1992 : 10,097,600 people participated in Zero-Accident Signature-Seeking Campaign, which sought to mobilize 10 million signers
- July, 1993 : Management Convention for Zero-Accident Program
- November, 1993 : The 1st Occupational Safety and Health Award was held

Acceleration Phase - 1995~1998

- 1995 : The rate of occupational injuries and illnesses in Korea dropped to below 1% / KOSHA's headquarters was transferred to the present location in Bupyeong-gu, Incheon
- December, 1995 : Center for Safety and Health Research was established
- March, 1997 : Plate-Hanging Ceremony of Center for Safety Certification was held
- May, 1997 : Training Center for Construction Safety Experience was completed
- September, 1997 : Industrial Chemicals Research Center was Completed
- April, 1998 : The 14th APOSHO Annual Conference was held in Seoul, Korea

Stabilization Phase - 1999~2008

- December, 1999 : The 12th Anniversary of KOSHA's Establishment / CI Proclamation Ceremony was held
- November, 2000 : KOSHA-BVQI Signed an Arrangement in Mutual Recognition of Occupational Safety and Health Management System
- June, 2003 : Safety Seminar on Cheonggye Stream's Restoration Project
- September, 2004 : KOSHA won the National Productivity Award
- December, 2004 : KOSHA-EU Signed Occupational Safety and Health Arrangement / Chemical Safety & Health Research Center was established
- July, 2006 : "Safety Love" Volunteer Group was created
- August, 2006 : KOSHA began sponsoring "Escaping Crises Number One", a TV program of KBS
- October, 2007 : KOSHA gave the 5,000th Safety Certification Mark ('S' Mark)
- December, 2007 : The 20th Anniversary of KOSHA's Establishment
- June, 2008 : The XVIII World Congress on Safety and Health at Work was held / Seoul Declaration on Safety and Health at Work was adopted

Efforts for Renovation (for a Second Take-off) : 2009 and Onwards

- January, 2009 : The Korean name of KOSHA changed from Korea Occupational Safety Agency to Korea Occupational Safety and Health Agency
- March, 2009 : Korea won the bid for hosting the 31st ICOH Congress in 2015
- February, 2010 : Service Industry Safety Department was launched
- October, 2010 : KOSHA co-organized the 1st International Conference on Accident Prevention(ICAP 2010) with the Korean Society of Safety (KOSOS)
- December, 2011 : KOSHA unveiled New Corporate Identity and Visions

5 Contact Point



Office • Phone • Location • Postal Code

KOSHA(Headquarters)

032)5100-500 • 478 Munemi-ro, Bupyeong-gu, Incheon, Korea • 403-711

Occupational Safety and Health Research Institute(OSHRI)

032)5100-901 • 478 Munemi-ro, Bupyeong-gu, Incheon, Korea • 403-711

Center for Chemicals Safety and Health

042)869-0304 • 339 Expo-ro, Yuseong-gu, Daejeon, Korea • 305-380

Occupational Safety and Health Training Institute(OSHTI)

032)5100-934 • 478 Munemi-ro, Bupyeong-gu, Incheon, Korea • 403-711

Seoul Regional Office

02)828-1600 • 14th floor, Yuhanyanghaeng Building, 74 Noryangjin-ro, Dongjak-gu, Seoul, Korea • 156-754

Northern Seoul Area Office

02)3783-8300 • 7th floor, Woori Building, 42 Chilpae-gil, Jung-gu, Seoul, Korea • 100-161

Gangwon Area Office

033)815-1004 • 2nd floor, Korean Teacher's Credit Union Building, 2370 Gyeonchun-ro, Chuncheon, Gangwon-do, Korea • 200-938

Gangneung Branch

033)655-1860 • 15th floor, Gangneung City Hall Building, 33 Gangneung-daero, Gangneung, Gangwon-do, Korea • 210-703

Busan Regional Office

051)520-0601 • 26, 1763 Beon-gil, Jungang-daero, Geumjeong-gu, Busan, Korea • 612-815

Eastern Gyeongnam Area Office

055)371-7500 • 4th floor, Yangsan Labor Complex Building, 51 Namyangsan 2-gil, Dong-myeon, Yangsan, Korea • 626-821

Ulsan Area Office

052)226-0510 • 146 Dodjil-ro, Nam-gu, Ulsan, Korea • 680-801

Gyeongnam Area Office

055)269-0510 • 259 Jungang-daero, Uichang-dong, Changwon, Gyeongsangbuk-do, Korea • 641-727

Daegu Regional Office

053)609-0500 • 19~20th floors, Hosu Building, 648 Gukchaebosang-ro, Junggu, Daegu, Korea • 700-732

Eastern Gyeongbuk Area Office

054)271-2014 • 402 POSCO-daero, Nam-gu, Pohang, Gyeongsangbuk-do, Korea • 790-823

Northern Gyeongbuk Area Office

054)478-8000 • 312-23, 3Gongdan 1-ro, Gumi, Gyeongsangbuk-do, Korea • 730-350

Gyeonggi-Incheon Regional Office

032)570-7200 • 15 Hanbit-ro 15, Seo-gu, Incheon, Korea • 404-803

Bucheon Area Office

032)680-6500 • 3rd floor, Daeshin Plaza, 19, 265 Beon gil, Songnae-daero, Wonmi-gu, Bucheon, Gyeonggi-do, Korea • 420-862

Southern Gyeonggi Area Office

031)259-7149 • 12th~13th floor, Gyeonggi Small & Medium Business Center, 511 Gwongwang-ro, Yeongtong-gu, Suwon, Gyeonggi-do, Korea • 443-766

Eastern Gyeonggi Area Office

031)785-3300 • 2nd floor, Sogok Hall Building, 3,17 Beon-gil, Swetgol-ro, Bundang-gu, Seongnam, Gyeonggi-do, Korea • 463-804

Western Gyeonggi Area Office

031)481-7551 • 2nd floor, Central Wedding Hall Building, 230 Gwangdeok 4-ro, Danwon-gu, Ansan, Gyeonggi-do, Korea • 425-022

Northern Gyeonggi Area Office

031)841-4900 • 1st floor, Northern Chamber of Commerce and Industry Building, 140 Chudong-ro, Uijeongbu, Gyeonggi-do, Korea • 480-070

Gwangju Regional Office

062)949-8700 • 8,9,11 floors, Trade Hall Building, 282 Mujin-daero, Usan-dong, Gwangsan-gu, Gwangju, Korea • 506-721

Jeonbuk Area Office

063)240-8500 • 4th floor, Ministry of Employment and Labor Complex Building, 251 Geonsan-ro, Deokjin-gu, Jeonju, Korea • 561-708

Eastern Jeonnam Area Office

061)689-4900 • 35 Museonjungang-ro, Yeosu, Jeollanam-do, Korea • 555-801

Jeju Area Office

064)797-7500 • 4th floor, Small & Medium Business Center, 473 Yeonsam-ro, Jeju, Jeju-do, Korea • 690-732

Daejeon Regional Office

042)620-5600 • 60, 339 Beon-gil, Expo-ro, Yuseong-gu, Daejeon, Korea • 305-380

Chungbuk Area Office

043)230-7111 • 3rd floor, KT Building, 20, 161 Beon-gil, Gagyong-ro, Heungdeok-gu, Chungju, Chungcheongbuk-do, Korea • 361-800

Chungnam Area Office

041)570-3400 • 3rd floor, Chungnam Economy Service Centre, 215 Gwangjang-ro, Seobuk-gu, Cheonan, Chungcheongnam-do, Korea • 331-981

6 Branch Office

