



# Annual Report 2006

**KOSHA**

**KOREA OCCUPATIONAL  
SAFETY AND HEALTH AGENCY**

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# President's Message

Today, the entire world has entered into the age of unlimited competition represented as the age of information and globalization. Likewise, we are making a world without national boundaries where products, labor, capital and information are integrated. Moreover, creation and demise of occupations are triggered following advancement in information and communication and creation of new knowledge. Accordingly, changes in the labor environment are also accelerating such increasing flexibility in the labor market.

Therefore, occupational safety and health activities are not limited for preventing the industrial accidents of a nation, but they should be recognized as a common issue that the related organizations worldwide need to mull over together to resolve the issue. We are all standing at a critical point whereby we need to actively undertake the numerous challenges in the area of occupational safety and health, in order to seek strategic solutions and to strengthen our network based on cooperation. Republic of Korea until now laid down the foundation for our livelihood with drastic economic growth and advancement in science and technology. Moreover, Korea Occupational Safety

and Health Agency continued to pursue occupational safety and health activities that would create “a desirable working environment” where the workers can work safely and healthy as an important initiative for realizing the concept of the respect of human. This is the source for forming trustworthy labor-management relations. Undoubtedly, it is the short cut for improving productivity by increasing companies competitiveness.

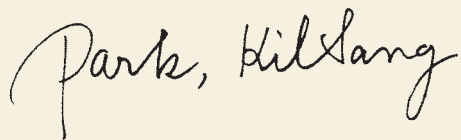
KOSHA set the goal for the 2006 as ‘providing optimal comprehensive occupational safety and health services’ to prevent industrial accidents at the small and medium sized workplaces, and to promote voluntary safety management system at large workplaces. Likewise, diverse occupational safety and health activities were conducted to protect the life and health of workers at their workplaces.

KOSHA executes its role as a member of the international society by sharing occupational safety and health related technologies and information with Asian countries to improve their safety and health level. We will continue to unravel numerous occupational safety and health related challenges

that the world is facing by building international network going forth.

Along with this, KOSHA will hold XVIII World Congress on Safety and Health at Work in Seoul along with the ILO and the ISSA from June 29 to July 2, 2008, to strengthen international cooperation to the prevention of occupational accidents and the protection of worker's health. The World congress is expected to contribute greatly to the advancement of the safety and health at work worldwide, and active interest and participation of the safety and health professionals worldwide are expected.

I sincerely thank the individuals and related institutions that helped our activities last year. Going forth, I implore you for your cooperation and encouragement to safeguard the safety and the health of the working people.



Park, Kil-Sang  
President, KOSHA



# I. Introduction to KOSHA

The Korea Occupational Safety and Health Agency (KOSHA) is a government-funded institute established on December 9, 1987 as a professional public organization financed through government subsidies in accordance with the Korea Occupational Safety and Health Agency Act (Law No. 3931, effective May 30, 1987). KOSHA seeks to contribute to the growth and development of the national economy by maintaining and improving the safety and health conditions of workplaces; toward this end, it shall efficiently implement the following projects: promotion of industrial accident prevention techniques, provision of technical assistance, training on occupational safety at work, and diagnosis and inspection of harmful and dangerous facilities and equipment, R&D, etc.









## II. Aim and Directions of Projects for the Prevention of Industrial Accidents in 2006



As its main project target for 2006, KOSHA sought to “provide optimal comprehensive occupational safety and health service by realizing customer-oriented responsibility management” and implemented several projects to prevent industrial accidents.

To prevent industrial accidents at workplaces in particular, the agency focused on respective areas such as technical support, educational assistance, subsidy, and R&D activities as its main strategies.

The four areas were categorized into 7 groups to maximize the effect of preventing industrial accidents.

1. Providing subsidy to small and medium-sized workplaces with poor working and financial conditions for improving facilities to eliminate harmful and dangerous elements
2. Promoting voluntary safety management system such that workplaces can manage safety and health at the management level and prevent accidents in advance
3. Supporting to establish the Process Safety and Management(PSM) system in processing particularly at petrochemical factories, which are vulnerable to large-accidents, to prevent major industrial accidents
4. Strengthening the safety of hazardous machinery and devices by securing fundamental safety at each stage of design, production, and use and implementing examination and authorization projects to secure safety and reliability for personal protective equipment and tools
5. Managing dangerous construction sites by dividing them into large-scale, medium-sized, and small-sized sites to provide the technology for accident prevention and to eliminate harmful and dangerous elements per construction stage and vulnerable period
6. Effectively managing chemical materials and caring for workers' health through the safe use and management of harmful materials, improvement of the working environment, prevention of cerebrovascular diseases, support for the promotion of workers' health, and project on preventing musculoskeletal disorders
7. Fostering safety awareness and R&D by implementing PR and safety culture promotion activities with the participation of employers and employees and developing policies on occupational safety and health as well as through the increased on-site use of the results of research performed with a strengthened practical research function

# Financial Support to Improve the Safety and Health Facilities in Small and Medium Sized Enterprises

KOSHA contributes to the prevention of industrial accidents by subsidizing small workplaces that are vulnerable to industrial accidents due to their poor working conditions and insufficient safety and health facilities. Specific programs include: “The Clean Workplace Program” project, which supports gratis the cost needed to improve the safety and health facilities at manufacturing workplaces employing less than 50 employees; “prevention of musculoskeletal disorders and improvement of environment at workplaces generating high-pitch noises”, a project that subsidizes 50% of the investment in the prevention of troubles related to workers’ musculoskeletal disorders and hearing problems due to noise generated at manufacturing or other workplaces with more than 50 employees; and “financial support for industrial accident prevention facilities”, which offers financing for the purchase of safety and health facilities at long-term, low interests.

“The Clean Workplace Program” supports the cost needed to improve the

safety and health facilities at manufacturing workplaces employing less than 50 employees to make safe and pleasant “clean workplaces”. A workplace satisfying KOSHA’s evaluation standard may get up to KRW40 million in support.

The program on “the prevention of musculoskeletal disorders and improvement of environment at workplaces generating high-pitch noises” is designed to refrain from regulatory prevention programs and improve the work process based on trust between labor and management to reduce the rapidly increasing number of musculoskeletal disorders and improve processes generating noises in more than 95% of workplaces exceeding the exposure limits for working environment.

The program on “financial support for industrial accident prevention facilities” seeks to prevent industrial accidents and improve working environments by promoting investments in industrial accident prevention facilities.



**Record of Projects by Years** (Unit: KRW100 million, site)

| Category                               | Total             | 2006             | 2005             | 2004           | 2003           | 2002           |
|--|-------------------|------------------|------------------|----------------|----------------|----------------|
| Clean workplaces                       | 34,038<br>(3,486) | 9,508<br>(1,000) | 9,513<br>(1,000) | 6,151<br>(673) | 3,266<br>(319) | 5,600<br>(494) |
| Programs for musculoskeletal disorders | 1,010<br>(130)    | 378<br>(52)      | 424<br>(53)      | 208<br>(25)    | -              | -              |
| Programs for high-pitch noises         | 202<br>(51)       | 118<br>(28)      | 84<br>(23)       | -              | -              | -              |
| Loans                                  | 4,971<br>(3,721)  | 948<br>(881)     | 1,040<br>(800)   | 1,012<br>(763) | 940<br>(627)   | 1,031<br>(650) |

\*Amount of subsidy enclosed in parenthesis



# Technical Support for Occupational Safety and Health

Technical assistance related to safety and health is one of the basic roles of KOSHA, which was established to contribute to the growth and development of the national economy by maintaining and improving workers' safety and health and facilitating the accident prevention activities of business owners. Various projects have been implemented since 1988 based on the changes in the industrial environment. Major projects that are currently under way include the comprehensive support for self-regulatory safety as implemented to offer overall technical support related to safety and health to manufacturing workplaces employing less than 300 employees based on the 4-M hazard assessment,

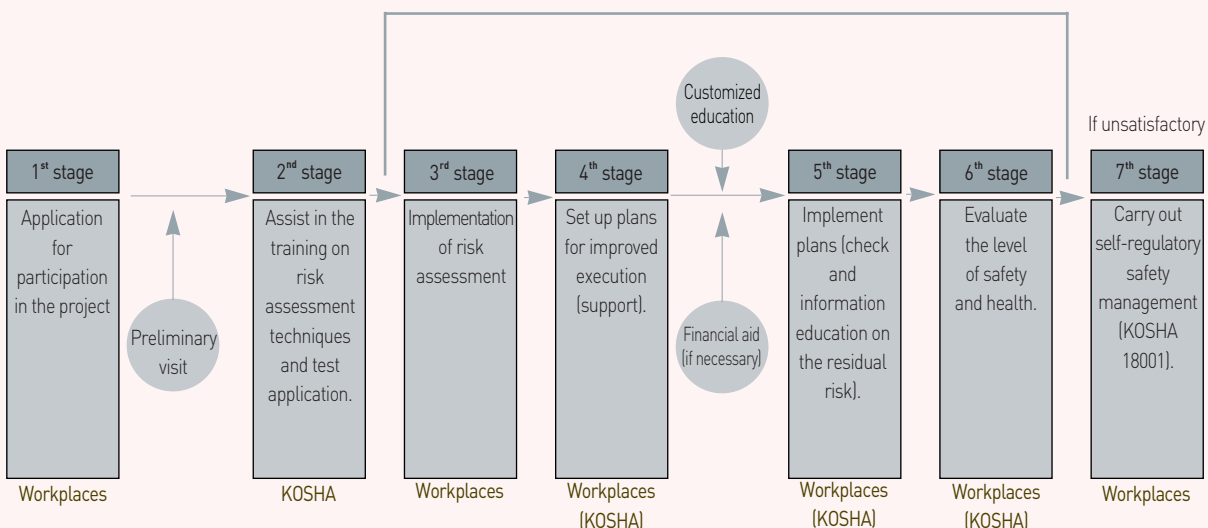
technical support for safety management at construction sites recording less than KRW 300 million in sales to prevent conventional accidents such as falling, collision, struck by falling and flying object, management of the working environment and workers' health to protect workers from various occupational harmful elements at industrial sites, and production of the Safety Technology Standard (KOSHA Code) designed to stipulate the technical guidelines for preventing new occupational diseases or musculoskeletal disorders caused by the treatment of heavy objects or repetition of simple operations and to assist in the safety and health activities at workplaces.

## Technical Assistance to Workplaces Vulnerable to Industrial Accidents

### Comprehensive Support for Self-regulated Safety Management

The program is designed to reduce accident through guiding and inspecting the implementation of the detailed technical requirement set by regulations and laws and assist in the establishment of an autonomous safety management system that will be linked to the identification and elimination of

hazardous elements based on the joint hazard risk assessment. In addition, KOSHA contributes to the improvement of the level of safety and health and the prevention of industrial accidents by assisting in safety activities until the workplaces develop as excellent stage in terms of safety and health.



## II. Aim and Directions of Projects for the Prevention of Industrial Accidents in 2006

### Technical Assistance Appropriate for the Regional Characteristics

KOSHA offers various kinds of industrial accident prevention activities such as technical support related to safety and health, provision of materials and educational assistance to manufacturing companies with high risk of accidents and other vulnerable workplaces. In particular, KOSHA contributes to the prevention of accidents by providing customized technical assistance as appropriate for the characteristics of each workplace.

### Technical Assistance Related to Safety and Health at Construction Sites

The construction market in Korea grew by 7.1% in 2006, thanks to the increase in the number of contracts in the private and building construction. In contrast, the number of contracts in the public sector and civil engineering divisions decreased by 8.9% and 7.9% respectively. The 2006 invoice showed a 5.3% increase, with the construction groundbreaking field recording a 0.8% increase.

Despite the general stagnation in the construction markets, KOSHA has consistently launched various accident prevention projects; as of 2006, it has succeeded in reducing the number of injured workers, which has kept increasing since 1999. In particular, the accident ratio stood at 0.70% as of 2005 compared to 0.75%.

#### Review and Site-Check of the Plan for the Prevention of Dangerous Work at Construction Sites

Dangerous elements are eliminated in advance through the safety inspection conducted before the start of high-risk construction works. Likewise, the execution of construction according to the original plan is regularly checked during the construction work to secure fundamental safety and ensure the right implementation of the plans.

※ Construction projects requiring submission of the “Plan for Prevention Dangerous Work at Construction Site” are

- Buildings higher than 31m or those constructed with fixtures.
- Buildings larger than 30,000m<sup>2</sup> in total, or cultural or convention facilities of accumulated area larger than 5,000m<sup>2</sup>
- Construction of bridges with a span longer than 50m
- Construction of tunnels

- Construction of multi-purpose dam power generating dam, reservoir dam with capacity greater than 20 million tons of water, or dam dedicated to city water of local government
- Excavation deeper than 10m

KOSHA contributes to the prevention of accidents at construction sites and improvement in the level of safety management through review and site-check as per Article 48 of the Industrial Safety and Health Act. It has also introduced the risk assessment technique in 2007. Specifically, the performance of the examined workplaces is considered very good, with accident ratio of approximately 0.3% or less than 40% of the average accident rate in the construction industry.

#### Review and Site-Check in the Last Five Years

| Item                      | 2006  | 2005  | 2004  | 2003  | 2002  |
|---------------------------|-------|-------|-------|-------|-------|
| Review (no. of sites)     | 1,928 | 1,524 | 2,084 | 2,374 | 2,284 |
| Site-Check (no. of times) | 5,895 | 6,619 | 8,915 | 9,075 | 7,060 |

#### Support for the Establishment of the Safety & Health Management System in the Construction Industry (KOSHA 18001)

KOSHA helps facilitate self-regulatory safety management activities and prevent accidents by supporting the establishment of the safety and health management system after receiving voluntary applications from clients engaged in construction projects and general and specialty construction companies. The program on the construction safety and health management is divided into several sub-categories: clients of construction projects, large construction companies, medium-sized construction companies, and subcontractor. Operation began in 2001; since then, 12 companies consisting mainly of large construction companies have been given certifications. A certification program for medium-sized construction companies and specialty construction companies has also been started.

#### Certifications of KOSHA 18001 in the Last Five Years (Unit : site)

| Total | 2006 | 2005 | 2004 | 2003 | 2002 |
|-------|------|------|------|------|------|
| 12    | 3    | 2    | 1    | 3    | 3    |

#### Comprehensive Technical Assistance for Voluntary Safety in Construction

To help construction companies with poor safety management systems develop voluntary safety and health programs, KOSHA received applications for comprehensive technical support from construction companies' headquarters and sites.



#### Comprehensive Technical Assistance for Voluntary Safety in Construction in the Last Five Years (Unit : site)

| Item              | 2006  | 2005  | 2004  | 2003  | 2002  |
|-------------------|-------|-------|-------|-------|-------|
| Technical support | 1,435 | 1,180 | 1,171 | 1,335 | 1,153 |

The staffs from KOSHA and construction site jointly provided technical support to enhance mutual trust. Such assistance proved to be effective, with the beneficiary workplaces recording only 0.13% accident rate.

#### Technical Support to Small Construction Sites

KOSHA provides continuing technical support to small construction sites whose contract amount is less than KRW 300 million and where safety awareness of employees and safety technology levels are relatively low even as many accidents have already been recorded.

#### Technical Support to Small Construction Sites in the Last Five Years (Unit : site)

| Item              | 2006   | 2005   | 2004   | 2003   | 2002  |
|-------------------|--------|--------|--------|--------|-------|
| Technical support | 15,378 | 15,515 | 12,467 | 12,525 | 9,022 |

#### Technical Assistance to Sites with High Risk of Large Accidents

Technical assistance is offered to construction sites with risk of large-scale accidents according to their working period by implementing measures for preventing collapse of supports and forms, fire, and explosion.

#### Technical Assistance to Site with High Risk of Large-scale Accidents in the Last Three Years (Unit : site)

| Item                 | 2006 | 2005 | 2004 |
|----------------------|------|------|------|
| Technical assistance | 543  | 245  | 276  |

## Management of the Working Environments and Promotion of Workers' Health

KOSHA has implemented programs designed to conduct risk assessment for workplaces handling harmful chemicals that may cause occupational diseases. KOSHA has also established the management system to improve working environments and communications systems for information about environmental agents.

The realities of domestic distribution and use of normal hexane,



trichloroethylene, DMF & DMAc, TDI & MDI, methyl bromide, and crystalline free silica at 516 workplaces were investigated, exposure to major harmful processes was grasped, and improvement measures were developed to file up the basic information required for the establishment of a Korean Control Banding system.

Depending on the condition of the working environment, a total of 1,022 workplaces where harmful agents were found were given technical assistance to improve their working environment. On the other hand, 101 workplaces including hospitals and health care centers deemed likely to cause infectious diseases by needle injure were assisted in the establishment of special measures for preventing infectious diseases.

A total of 118 workplaces were assessed to secure the reliability of the working environments monitoring in accordance with the industrial Safety and Health Act. Likewise, 186 workplaces deemed likely to cause occupational diseases were assisted by teaching them the technique for evaluating the level of exposure to harmful agents at workplaces to determine its correlation with the diseases or symptoms of the workers.

Health management pocketbooks were issued to 376 workers (accumulated no. of persons: 3,916) to trace prospectively the workers exposed to carcinogens.

#### Occurrence of Occupational Diseases for the Past 5 Years (Unit : case)

| 2006  | 2005  | 2004  | 2003  | 2002  |
|-------|-------|-------|-------|-------|
| 2,173 | 2,527 | 2,492 | 1,905 | 1,351 |

\*Diseases related to musculoskeletal disorders

## II. Aim and Directions of Projects for the Prevention of Industrial Accidents in 2006

self-regulated comprehensive health promotion programs were implemented to prevent cardio-cerebrovascular diseases caused by the aging of workforce, elevation of job stress and changes in lifestyle.

KOSHA has provided self-regulated programs for 205 workplaces and intervened with 1,504 workplaces. As a result, the occurrence of cardio-cerebrovascular diseases showed a gradually decreasing trend, i.e., 2,285 persons in 2004, 1,834 in 2005, and 1,607 in 2006.

### Program for Preventing Musculoskeletal Disorders

To prevent musculoskeletal disorders due to the increase in the number of repeated works as a result of automation, wrong working posture, and treatment of heavy materials, programs such as the examination of harmful elements, technical support according to the characteristics of each workplace, and establishment of a prevention and management system were implemented.

Workplaces that did not conduct an inspection of the harmful elements deemed to cause musculoskeletal disorders were assisted in the examination of harmful elements and establishment of improvement plans (839 workplaces). On the other hand, those that performed an examination of the harmful elements were supported differently based on the evaluation of reliability of the examination results (165 workplaces).

Through specific assistance adjusted on the results of evaluation

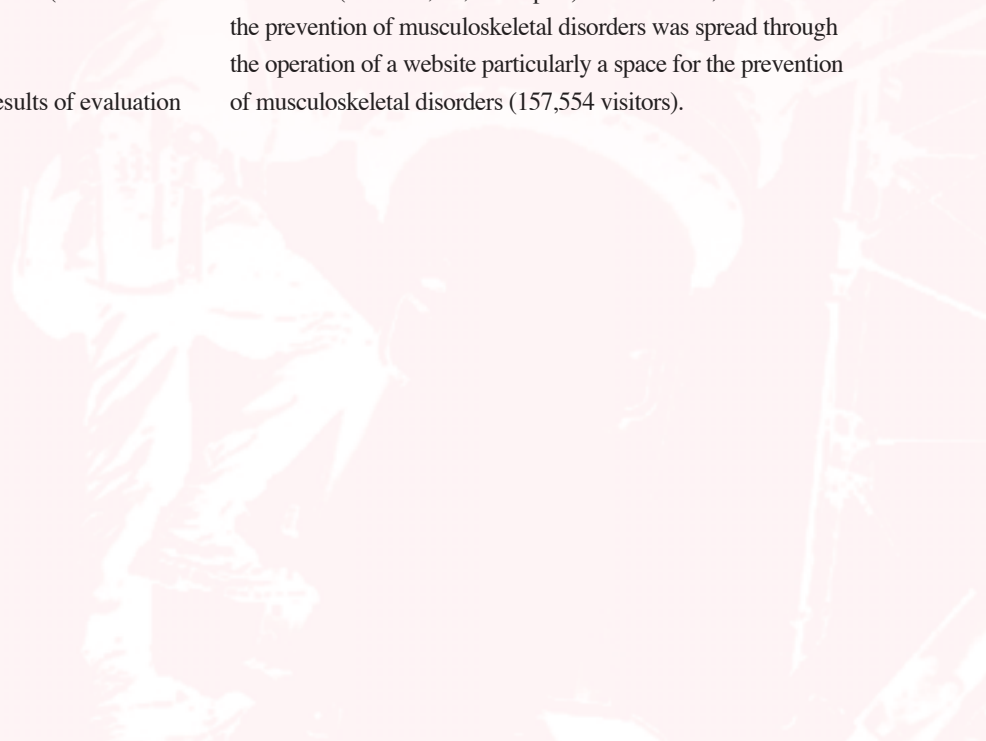
of the probability of workplaces recording incidences of musculoskeletal disorders, the number of patients decreased by 30.1% on the average following the identification of dangerous elements and improvement in the management and engineering methods.

KOSHA supports to establish WMSDs prevention management program such as organizing a team for the prevention of musculoskeletal disorders, education, training and medical management system at 301 workplaces.

The basis for the strengthened, customized technical assistance per industry was established considering the socio-economic environmental change such as the diversification of industrial structure, aging workers, and increase in the number of musculoskeletal disorders in non-manufacturing industries.

Moreover, technical assistance was provided as appropriate for the characteristics of non-manufacturing industries such as health, social welfare program, food and accommodation, and wholesale and retail (500 workplaces). Manuals were also produced (3 kinds, 700 copies), and technical seminars were held three times in 2006 with the participation of 127 persons.

Presentation sessions for best practice cases and technical seminars were held (8 times, 616 persons), and technical reference materials including the manual for the prevention of musculoskeletal disorders in vulnerable industries, produced and distributed (23 kinds, 83,100 copies). Furthermore, awareness of the prevention of musculoskeletal disorders was spread through the operation of a website particularly a space for the prevention of musculoskeletal disorders (157,554 visitors).





## Development of Workplace Health Partner(WHP) Program

Workplace Health Partner will be launched in January 2007. It was planned to overcome the limitation of current legal system, working environment monitoring and medical surveillance obligated by Industrial Safety and Health Act. And most of employers in Small and Medium-sized Enterprises (SMEs) usually avoid opening the problems in their workplace, even though they already recognized these ones. And their employees don't want to disclose the problems on workplace health because they could be discriminated. Thus KOSHA has considered a prospective program with new concept.

The purpose of WHP is to establish the partnership between enterprises and KOSHA for the promotion of workers' health. It's a free, no obligation service providing technical assistance on health in the workplaces to small and medium-sized enterprises. The findings will be kept the secret. The WHP scheme exists at three levels;

- Level 1: Providing practical assistance and information based on the statement of requesters using calling or facsimile
- Level 2: Providing practical assistance and information from on-site visiting to find out the problems and solutions
- Level 3: Providing precision investigation like epidemiological study to reveal the relationship between occupational diseases or symptoms and hazards

## Development of Guidelines for Safety and Health Techniques (KOSHA Codes)

To meet the requirements for the development and dissemination of the technical criteria for safety and health as appropriate for each situation at workplaces, KOSHA organized the technical standards committee according to the technical guidelines and standards for working environment as added to the Industrial Safety and Health Act in 1990.

The technical standards committee consists of 8 sub-committees on general industrial safety, mechanical safety, electrical safety, chemical safety, construction safety, industrial health management, industrial medicine, and industrial hygiene as well as a supervising committee. Each sub-committee consists of less than 20 members from government, industry and academe possessing expert knowledge in safety and health.

Currently, 262 items of the KOSHA Code have been enacted and disseminated through leaflets or website. The KOSHA Code is revised every 5 years to reflect the technical developments in safety and health.

**Registration of KOSHA Code per Area (1995~2006)** (Unit: case)

| Total | General Safety | Machinery | Chemical | Electricity | Construction | HealthCare | Hygiene | Medicine |
|-------|----------------|-----------|----------|-------------|--------------|------------|---------|----------|
| 262   | 7              | 78        | 76       | 33          | 28           | 9          | 12      | 19       |

Moreover, since international standards are increasingly adopted as national standards, related international standards have been referred to at the time of development of these technical guidelines such that they correspond to international standards. KOSHA participates as the representative of Korea's professional committees in conventions on crane (ISO/TC 96), mechanical vibration (ISO/TC 108), air quality (ISO/TC 146), explosion-proof electrical equipment (IEC/TC 31), electrical safety of industrial mechanical devices (IEC/TC 44), etc.



# Test, Examination, Approval, and Certification



Considering the increase in the number of industrial accidents due to dangerous machines and equipment alongside the economic development of Korea. KOSHA has been conducting inspection on 6 types of dangerous machines and equipment including cranes and pressure vessels with high risk potential of accidents pursuant to the Industrial Safety and Health Act. Under this inspection system, all manufacturers, importers, installers, and users are required to undergo 3 stages of inspection: design inspection prior to manufacture, finish-product or performance inspection after manufacture (or inspection during the manufacturing process), and periodic inspections during use. The agency is also testing the performance of personal protective equipment and devices that help protect workers from dangerous machinery, facilities, and

harmful elements to block completely the production and distribution of those protective and safety devices whose quality falls short of the safety standard. Any single major industrial accident, e.g., fire, explosion, or leakage, at a chemical factory yields huge adverse impact on residents and environment in the vicinity of the plant, not to mention the workers inside the plant. Thus, the Process Safety Management(PSM) system is being implemented to secure the safety of harmful and dangerous facilities within the processes to prevent such accidents together with Integrated Risk Management System(IRMS) and K-Risk Based Inspection(K-RBI). The K-RBI is made use of inspecting for the quantitative evaluation of the danger of chemical equipments and apparatuses including pressure vessels.

## Support for the Establishment of Occupational Safety and Health Management System (KOSHA 18001)

The 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 its practices and the management conducts a periodic self-evaluation of the safety and health management plan for continuous improvement.

To promote such occupational safety and health management systems, KOSHA started implementing the “KOSHA 18001” certification system in July 1999 for compliance by all workplaces.

In the KOSHA 18001 certification system, a certificate and a plaque of certification are awarded if the requirements of the certification standard are met following the evaluation of the safety and health management system at the workplace.

The occupational safety and health management system of KOSHA 18001 consists of the consultation and evaluation of the initial status of the workplace, safety and health policy, planning, implementation, operation, checking and correction, corrective measures, and audit by the management. Note, however, that the details of the application of each component and their implementation are decided at the discretion of the company considering the overall

situation such as the size of the workplace, management goal, managerial circumstances, and potential risks.

### Application Procedure and Implementation Performance



In 2006, KOSHA evaluated the applications for certification of good safety and health management establishment and granted KOSHA 18001 certificates to 36 workplaces deemed to be above a certain level. As of the end of 2006, a total of 337 workplaces nationwide underwent evaluation.

## PSM, Quantitative Risk Management, and Technical Support for Risk-based Inspection

### Evaluation and Confirmation of PSM

Any major industrial accident, e.g., fire, explosion or leakage at a single oil refinery or a petrochemical plant wields huge adverse impact on residents and environment in the vicinity of the plant, not to mention the workers inside the plant.

The Process Safety Management (PSM) system is a mandatory system that requires workplaces operating hazardous and harmful facilities to submit process safety reports to KOSHA for deliberation and approval. The system has been implemented by Industrial Safety and Health Act, Article 49-2, since Jan. 1, 1996.

A total of 781 workplaces have been subjected to the Process Safety Management (PSM) system including 156 in harmful and dangerous industries such as crude oil refinery business and 625 that process one or more of the 21 hazardous and harmful substances such as chlorine and phosgene beyond the prescribed quantities.

### Quantitative Risk Assessment and Technical Support for Risk-based Inspection(RBI)

To prevent accidents at chemical factories and mitigate damage in case of accidents, KOSHA is distributing to workplaces the quantitative risk assessment program it developed. It is also offering technical assistance to enable the assessment of risks and preparation of inspection plans considering the probability of accidents and extent of damage depending on the facilities, e.g., fixed facilities and piping in the manufacturing process of a chemical factory, using KOSHA-RBI, an exclusive program for Risk-based Inspection (RBI).



## II. Aim and Directions of Projects for the Prevention of Industrial Accidents in 2006

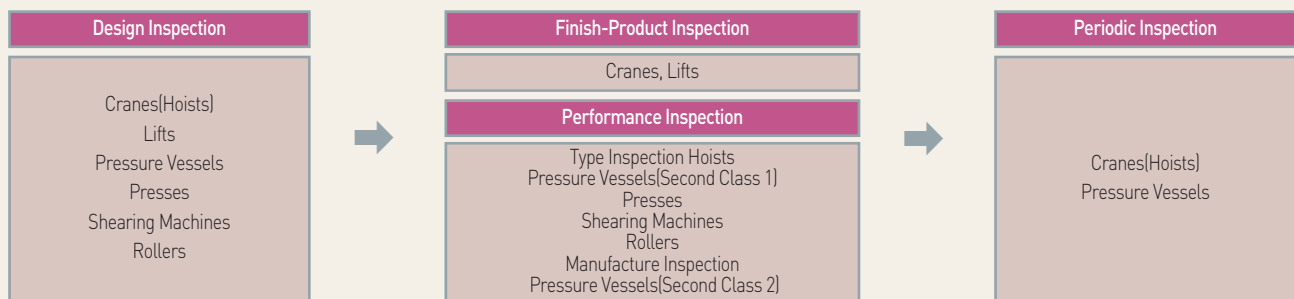
### Inspection of Dangerous or Hazardous Machinery, Equipment, and Facilities

Since July 1, 1991, KOSHA has been conducting inspection on the 6 types of dangerous machines and equipment including cranes, lifts, pressure vessels, presses, rollers, and shearing machines with high risk potential of accidents pursuant to the Industrial Safety and Health Act. Without undergoing this inspection, any dangerous machine and equipment cannot be

manufactured, imported, transferred, lent, nor used. This inspection system consists of 3 stages: design inspection prior to manufacture, finish-product or performance inspection upon manufacture (or inspection during the manufacturing process), and periodic inspections during use.

Thanks to the implementation of the inspection system, accidents due to dangerous machinery, equipment, and facilities continue to decrease. The stoppage of production due to unexpected breakdown can also be prevented.

#### [Types of Inspection]



#### Types of Inspections Performed in the Last 5 Years (Unit: case)

| Inspection<br>Type<br>Year | Total  | Design<br>Inspection | Finish-Product<br>Inspection | Performance<br>Inspection | Periodic<br>Inspection |
|----------------------------|--------|----------------------|------------------------------|---------------------------|------------------------|
| 2006                       | 99,382 | 11,309               | 24,365                       | 14,630                    | 49,078                 |
| 2005                       | 87,671 | 9,156                | 22,263                       | 12,693                    | 43,559                 |
| 2004                       | 87,148 | 8,778                | 23,088                       | 12,404                    | 42,878                 |
| 2003                       | 77,949 | 8,083                | 21,642                       | 11,342                    | 36,882                 |
| 2002                       | 72,365 | 7,688                | 17,904                       | 9,357                     | 37,416                 |

material, and performance for 14 dangerous or hazardous machinery, equipment and safety devices and 11 pieces of personal protective equipment associated with a high rate of industrial accident under the Industrial Safety and Health Act.

#### Performed in the Last 5 Years (Unit: case)

| Item             | Total  | 2006  | 2005  | 2004  | 2003  | 2002  |
|------------------|--------|-------|-------|-------|-------|-------|
| Performance test | 12,447 | 2,391 | 2,876 | 3,464 | 1,861 | 1,855 |

#### Types of Machines Inspected in the Last 5 Years (unit: case)

| Machine<br>Type<br>Year | Total  | Crane  | Lift  | Pressure<br>Vessel | Press and<br>Shearing<br>Machines | Roller |
|-------------------------|--------|--------|-------|--------------------|-----------------------------------|--------|
| 2006                    | 99,382 | 49,008 | 7,667 | 42,111             | 587                               | 9      |
| 2005                    | 87,671 | 42,572 | 7,620 | 36,929             | 527                               | 23     |
| 2004                    | 87,148 | 42,268 | 8,546 | 35,693             | 608                               | 33     |
| 2003                    | 77,949 | 36,848 | 8,592 | 31,611             | 882                               | 16     |
| 2002                    | 72,365 | 36,528 | 5,886 | 28,939             | 1,010                             | 2      |

### Performance Test of Safety Devices and Personal Protective Equipment and Safety Certification of Industrial Machinery and Facilities

The performance test of safety devices and personal protective equipment is a system used to determine the appropriate structure,

#### “S” Mark Safety Certification

The “S” mark safety certification system evaluates safety and reliability of industrial machine and tools as well as the manufacturers’ quality control systems comprehensively to help machine manufacturers and tool makers design and manufacture safe products and prevent industrial accidents by enabling them to distribute safe products.

Manufacturers receiving safety certificates can use the “S” mark as a symbol of safety when advertising the products or on their products or product packages.

#### Performed in the Last 5 Years (Unit: case)

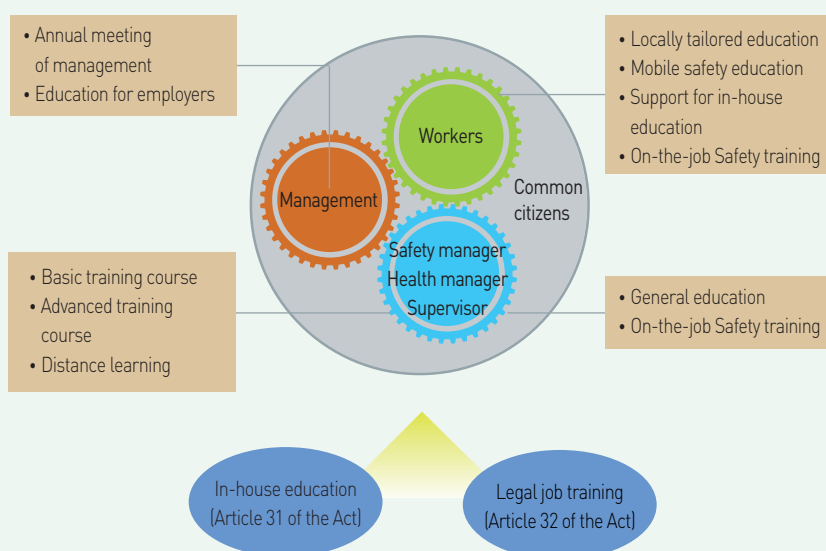
| Item                 | Total | 2006  | 2005 | 2004 | 2003 | 2002 |
|----------------------|-------|-------|------|------|------|------|
| Safety certification | 3,031 | 1,097 | 753  | 487  | 335  | 359  |

# Education & Training on Prevention of Industrial Accidents

KOSHA has developed and operated a variety of education and training programs pertinent to occupational safety and health appropriate for the respective jobs, accident types, and regions through accident analysis to realize safe and healthy industrial communities. It has also succeeded in promoting safety awareness and preventing industrial accidents considerably.

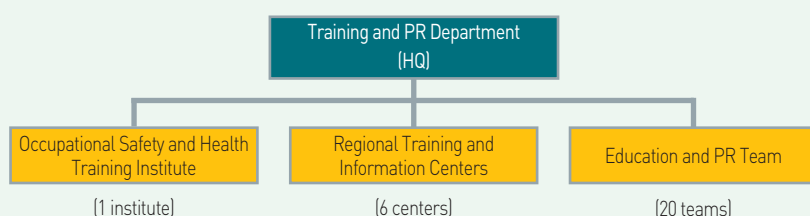


## Supporting Systems for Education and Training on Occupational Safety and Health



KOSHA has consistently developed and operated education 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 Industrial Safety and Health Act. In particular, KOSHA has been operating the various education courses it developed as appropriate for management, supervisors, workers, and common citizens to meet the requirements of customers; thus optimizing the effects of education and enhancing customer satisfaction.

## II. Aim and Directions of Projects for the Prevention of Industrial Accidents in 2006



### Organization of Education and Training on Occupational Safety and Health

KOSHA's organization of education and training on occupational safety and health consists of the headquarters' Training and Public Relations Department, which is responsible for the development and operation of all training courses, one Occupational Safety and Health Training Institute(OSHTI) for operating expert training courses for safety and health managers, six Regional Training and Information Centers(RTIC) for establishing and operating semi-expert training courses at the respective regions, and twenty Training and Public Relation Teams to provide customized and various training courses. The organization exercises the core functionality for the activation of occupational safety and health training.

### Support for Customized Training Courses

#### Training Courses for the Management

The annual meeting of the managements of enterprises by KOSHA is an ideal venue for suggesting good cases of safety to strengthen the competitiveness of enterprises and to guide them in promoting safety awareness and investing in safety systems. Furthermore, KOSHA trains employers of hazardous businesses from among enterprises employing less than 50 workers on the frequent accidents in the respective regions and on various courses including administration and safety, analysis of accident causes, and safety-ensuring measures to help them establish self-regulatory safety management for accident reduction.

| Item   | (Unit: person) |        |        |        |        |
|--|----------------|--------|--------|--------|--------|
|  | 2006           | 2005   | 2004   | 2003   | 2002   |
| Annual meeting the management                    | 3,362          | 2,139  | 2,036  | 1,911  | 2,058  |
| Education for employer with less than 50 workers | 16,849         | 14,826 | 16,462 | 20,894 | 11,420 |

#### Training Courses for Supervisor

KOSHA contributes to the reduction of accidents at workplaces by providing appropriate training courses developed for situations in the respective regions through an analysis of industrial structures and occurrence of accidents in the regions. Specifically, it has established six Regional Training and Information Centers nationwide in 2006 to enhance opportunities for training courses for regional enterprises and operate on-the-job training for supervisors. The centers also enhance customized training courses such as comprehensive consulting services for safety and health training based on risk assessment at individual enterprises.

| Item   | (Unit: person) |        |        |        |        |
|--|----------------|--------|--------|--------|--------|
|  | 2006           | 2005   | 2004   | 2003   | 2002   |
| Locally tailored education                                       | 35,548         | 23,887 | 33,643 | 26,085 | 33,941 |
| On-the-job training  | 8,375          | -      | -      | -      | -      |
| Comprehensive consulting services for safety and health training | 5,936          | -      | -      | -      | -      |



## Training Courses for Employee

The Training and Public Relation Teams at the 20 area offices provide training services to workers at manufacturing and construction workplaces that are poor in in-house training owing to deficient training circumstances, e.g., training venue and lecturers. Specifically, buses that are fully equipped with visual and audio training systems are used. The teams also provide free training courses and lecturers on safety and health at the request of small and medium-sized enterprises that are virtually incapable of executing in-house training courses due to the lack of expertise in safety and health.

| Item                    | (Unit: person) |         |         |         |         |
|-------------------------|----------------|---------|---------|---------|---------|
|                         | 2006           | 2005    | 2004    | 2003    | 2002    |
| Mobile safety education | 126,795        | 109,230 | 106,484 | 106,839 | 98,015  |
| In-house education      | 80,605         | 81,610  | 99,863  | 104,941 | 112,145 |

## On-the-Job Safety Training

KOSHA provides free on-the-job training on construction safety to help employees recognize safe work at the sites by letting them experience the physical injuries sustained due to falling objects and falls. Such on-the-job construction training (conducted at 6 training centers) involves over 30 construction safety-related facilities including the use of safety belts, breaking tests of fall-prevention nets and safety helmets, and firefighting and emergency rescue for construction employees and supervisors. The training contributes to enhancing safety awareness among workers.

| Item                | (Unit: person) |        |        |        |        |
|---------------------|----------------|--------|--------|--------|--------|
|                     | 2006           | 2005   | 2004   | 2003   | 2002   |
| On-the-job training | 32,083         | 31,780 | 36,700 | 35,713 | 28,854 |

In addition, trainees can use computer-based virtual reality technology to tour dangerous workplaces and experience the hazards and process of accidents at plants or construction sites through computer-graphic 3D video. Specifically, KOSHA operates Virtual Safety Training Centers whose operation are linked with the on-the-job construction safety training for workers, common citizens, and students.

| Item                    | (Unit: person) |        |        |        |        |
|-------------------------|----------------|--------|--------|--------|--------|
|                         | 2006           | 2005   | 2004   | 2003   | 2002   |
| Virtual safety training | 14,193         | 40,394 | 45,985 | 35,954 | 19,545 |

## Training Courses for Safety and Health Expert

As part of training for its specialist, KOSHA provides basic training courses, practice-oriented advanced training courses, and distance learning for safety and health managers and supervisors to prevent industrial accidents and occupational diseases and improve workers' health. In addition, a mail correspondence program is provided to improve the competency of supervisors; thus making them more aware of safety and health within workplaces and enabling them to keep safety in mind at all times while working. KOSHA has also been offering cyber training programs through the Internet.

| Item                       | (Unit: person) |        |        |        |        |
|----------------------------|----------------|--------|--------|--------|--------|
|                            | 2006           | 2005   | 2004   | 2003   | 2002   |
| Total                      | 15,225         | 12,997 | 12,412 | 12,942 | 11,527 |
| Basic training course      | 1,404          | 396    | 412    | 643    | 526    |
| Advanced training course   | 6,815          | 7,473  | 7,931  | 7,820  | 7,061  |
| Mail                       | 3,668          | 3,666  | 3,531  | 3,923  | 3,727  |
| Distance learning Internet | 3,338          | 1,462  | 538    | 556    | 213    |

## Early Safety Training

Preventing accidents effectively requires everyone to participate and cooperate voluntarily based on the positive awareness campaign on safety. Enhance a sense of safety consciousness among children and primary, middle, and high school students and enabling them to develop safety habits during their formative years are extremely essential. As part of the early safety training program, KOSHA conducts free training courses for 2 days (16 hours) for kindergarten and primary school teachers to nurture them into safety culture instructors possessing the necessary qualifications. It also promotes children's safety awareness by supplying safety training materials that are appropriate for students at the kindergarten up to the primary school levels. In particular, to prevent accidents in schools, enhance safety awareness, and develop the attitude of students through school courses and safety activities, KOSHA operates model safety schools. All required teaching materials and aids, training, instructors, safety inspection as well as the necessary funding for the operation of the model school are provided by the agency.

| Item  | (Unit: person) |       |       |       |       |
|---|----------------|-------|-------|-------|-------|
|   | 2006           | 2005  | 2004  | 2003  | 2002  |
| Training for safety instructors                           | 1,949          | 1,691 | 1,698 | 1,700 | 1,508 |
| Operation of designated model schools for safety training | 64             | 64    | 64    | 64    | 64    |



# Safety Culture

To enhance safety awareness among employees and employers and to create an effective safety

culture nationwide, KOSHA implements various PR and campaign activities through various media.

## National Safety Culture Movement

In the latter half of 1995, the government started the safety culture movement with the participation of civilian, government, and other organizations covering all social sectors to establish a pan-national safety culture.

As of April 1996, the safety culture implementation committee declared the 4th (or the following business day if the 4th falls on a holiday) of each month as “Safety Checking Day”. The project seeks to enhance public safety awareness and implement monthly accident prevention and risk detection activities.

| Item              | 2006  | 2005 | 2004 | 2003 | 2002 |
|-------------------|-------|------|------|------|------|
| Safety Inspection | 1,684 | 345  | 454  | 556  | 635  |

(Unit: site)

## The Week of Occupational Safety and Health

Together with the Ministry of Labor, KOSHA celebrates the “The Week of Occupational Safety and Health” every year pursuant to the Industrial Safety and Health Act. The first week of July of each year has been declared as Occupational Safety and Health Week, during which occupational safety and health personnel are rewarded for their meritorious contributions to the prevention of industrial accidents. Exchanging accident prevention technique and encouraging free discussions enable the creation of an accident prevention atmosphere during this week.

KOSHA holds various events to enhance the safety awareness of employers and workers as well as safety and health experts and common citizens, e.g., meeting on occupational safety and health, exhibition, essay & PR contests, and operation of an interactive safety pavilion.

## Accident-Free Movement

### Management of Participating Workplaces

Business owner embarking on an accident-free movement should announce the beginning of the movement to its employees and submit a report containing related details to the regional or area offices of KOSHA within 14 days.

KOSHA supports workplaces managing accident-free movement by providing various educational materials to revitalize the movement.

Once they have achieved their time targets set by business type and size, these workplaces can apply for the certification of their achievements within 60 days.

The regional or area office investigates within 14 days if the type of business was properly applied, if the time target was appropriately set and calculated, and whether no industrial accidents occurred. If the goal was achieved properly, an accident-free certificate and the award would be given.

### Method Development and Distribution for the Promotion of the Accident-free Movement

To promote the accident-free movement effectively, various methods such as training on the 4-round danger anticipation, training on one-point danger anticipation, and accident case studies are provided to workplaces.

### Status of Participation

#### Workplaces Participating in the Accident-Free Movement by Size and Year (Unit: place)

| Item       | Total   | Less Than 50 Workers | 50-99  | 100-299 | 300 or More Workers |
|------------|---------|----------------------|--------|---------|---------------------|
| 2006       | 2,623   | 1,297                | 676    | 549     | 101                 |
| 2005       | 2,658   | 1,172                | 765    | 549     | 172                 |
| 2004       | 2,570   | 1,294                | 569    | 536     | 171                 |
| 2003       | 4,654   | 3,008                | 886    | 621     | 139                 |
| 2002       | 5,611   | 4,078                | 842    | 574     | 117                 |
| Up to 2001 | 93,790  | 61,126               | 17,975 | 11,428  | 3,261               |
| Total      | 111,906 | 71,975               | 21,713 | 14,257  | 3,961               |

#### Status of Target Achievement by Year (Unit: place)

| Item       | Total  | 50%   | 100%   | Twice | Thrice | Four times | Five times | Tenfold or Higher |
|------------|--------|-------|--------|-------|--------|------------|------------|-------------------|
| 2006       | 1,324  | 0     | 570    | 278   | 174    | 41         | 123        | 138               |
| 2005       | 1,201  | 0     | 605    | 238   | 154    | 0          | 127        | 77                |
| 2004       | 1,210  | 0     | 604    | 228   | 197    | 0          | 126        | 55                |
| 2003       | 1,003  | 0     | 374    | 255   | 176    | 0          | 146        | 52                |
| 2002       | 1,013  | 0     | 406    | 209   | 200    | 0          | 154        | 44                |
| Up to 2001 | 23,336 | 1,595 | 11,511 | 5,202 | 3,018  | 644        | 1,214      | 152               |
| Total      | 29,087 | 1,595 | 14,070 | 6,410 | 3,919  | 685        | 1,890      | 518               |



# Publication & Distribution of Technical Information

## Publication and Distribution of Technical Materials

To boost safety activities and encourage self-regulatory safety management in workplaces, KOSHA distributes the necessary safety and health materials per industrial sector to the relevant workplaces. These materials include periodicals, pamphlets, posters, leaflets, stickers and videos. Multimedia materials are also available online for easy access by employers and employees.

### Periodical Publications

Large and medium-sized workplaces employing more than 50 workers are given a monthly magazine titled “Safety and Health”. The magazine consists of information on the technics required for self-regulatory safety management, best practices, major industrial accidents, and related regulations, and standards.

### Website Operation

Workplaces nationwide as well as the general public are given technical know-how online through a web magazine called WiSH (<http://wish.kosha.net>). As of 2006, streaming data for training and information on safety and health such as major industrial accidents have been sent to some 60,000 employers and safety and health staff as well as the general public via e-mail.

### Educational Materials for Small Workplaces Vulnerable to Industrial Accidents

Educational materials for workplaces employing less than 50 workers

Published quarterly, “Occupational Safety and Health” targets 250,000 workplaces employing less than 50 workers but have yet to receive direct support from KOSHA. In addition, customized technical materials in three areas are provided for free: manufacturing, construction, and transportation · warehousing · Communication industries.

Educational materials for workplaces employing less than 5 workers

Among accident-prone workplaces employing less than 5 workers and receiving no direct support from KOSHA, some 130,000 workplaces with higher accident rate than the 0.77% overall rate are regularly given pamphlet, posters, and stickers. KOSHA contributes to industrial accident prevention by eliminating areas where support is lacking when it comes to accident prevention.

### Educational Materials on Industrial Accident Prevention for Migrant Workers

Translated into 10 different languages, i.e., English, Chinese, Indonesian, Bengali, Vietnamese, Uzbek, Thai, Sinhala(Sri Lankan), Mongolian, and Urdu(Pakistan), these materials also contain fundamental knowledge on industrial accident prevention for the training of migrant workers.

### Modular Instruction Materials

KOSHA will be developing and distributing some 1,500 types of modular instruction materials that will be used for all its training Courses from 2006 to 2010. Modular instruction materials are produced in 2 types: the module and sheet type. In 2006 in particular, KOSHA developed a total of 157 materials (module type: 54; sheet type: 103) for 6 sectors including mechanical, electrical and constructional safety, health and hygiene and general safety. These materials are provided to those who complete a training course. Furthermore, KOSHA is operating the database that it has built, which contains modular instruction materials.

### Teaching Programs

Teaching programs for safety education are available for those who complete a training course and for staff of KOSHA via the website. In 2006, KOSHA has developed and distributed some 100 materials such as a teaching program consisting of modular instruction materials and power point materials related to fatal accident cases.



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### KOSHA Self-regulatory Safety Club

KOSHA self-regulatory safety club was established in May 2001. As of the end of 2006, club members number 2,093, 689 (32.9%) of which are manufacturers and 1,404 (67.1%) are construction companies. KOSHA annually recruits safety manager members from large-sized construction companies and manufacturers and provides club members with “monthly training materials”, safety and health information and technical materials, PR materials, and audiovisual training aids required in conducting safety training for workers via both on-line and off-line. Safety and Health news, various educational and technical materials are also provided via the website.

Training materials, posters, display panels, and videos are offered to workplaces nationwide as well as the general public for a fee. In 2006, some 291 materials have been posted for sale on the website.

### Multimedia Streaming Data(Video and Animation)

KOSHA develops and distributes about 20 educational videos annually. Using these videos, KOSHA educates 100,000 workers per year as well as the employees of its 2,000 club members every month.

Through its WiSH website, KOSHA develops and distributes about 24 educational animations annually to improve its educational effects. An animation titled “24 hours of the accident center (flash animation)” introduces fatal accident cases and accident prevention measures. Another animation dubbed “safety fairy tale” is an emotional story about industrial accidents. These animations are very popular in workplaces as educational materials designed to enhance employees’ safety awareness.



### Information Network

KOSHA operates its website and offers KOSHANET services for safety and health personnel, workers, and general public. Specifically, the EIP (Enterprise Information Portal) system is operated to enable internal customers to conduct accident prevention activities more effectively.

The KOSHA website (<http://www.kosha.or.kr>) contains an introduction of KOSHA as well as information on its 68 businesses and various civil services. The agency has also built a database containing domestic and foreign safety and health materials dubbed KOSHANET services (<http://www.kosha.net>) for free distribution to workplaces, workers, and safety and health personnel as well as the general public.

In particular, KOSHANET provides information on 13 areas including legislation information related to safety and health, KOSHA Codes, MSDS, one-page sheets, accident cases, and information on foreign countries. Four multimedia services including foreign streaming data as well as an e-book are also provided via KOSHANET.

(※ KOSHANET members as of Dec. 31, 2006: 248,818)

In 2006, KOSHA built ERP (Enterprise Resource Planning) and EIP (Enterprise Information Portal) systems to conduct accident prevention activities more effectively for internal customers. These systems integrate the management DB, connect with the processing system, and combine the separately operated information system. The agency combined the internal and external systems such that information from the ERP system can be selected for supply through the website and KOSHANET services. KOSHA not only reinvented its internal practices but significantly improved its customer services as well.



# Systematic Management of Statistics on Industrial Accidents

KOSHA is contributing to the prevention of industrial accidents by providing the basic data required for the establishment of policies to prevent industrial accidents and for implementation to protect the life and health of workers through the analysis of results of cases of industrial accidents and health checkup of workers per industry category, pattern of occurrence, and reasons for such.

## Analysis of the Realities of Industrial Accidents

For accidents occurring in workplaces governed by the Industrial Accident Compensation Insurance Act, deaths covered by the law as work-related deaths or illnesses or illnesses requiring more than 4 days' medical treatment are analyzed in terms of their characteristics per business category, size of business, region, pattern of occurrence, and type of business.

※ Legal basis: General statistics based on Article 8 of the Statistics Law (approval no. 11806)

## Examination of the Causes of Industrial Accidents

Accidents in workplaces covered by the Industrial Accident Compensation Insurance Act go through in-depth analysis to investigate their causes according to the fundamental cause, details of work, type of injury, part of injury, and employment type. Mailing, telephone calls, and visiting surveys are conducted every year for a 10% sample in the case of work-related accidents; for all cases of work-related illness, however, review of data, telephone calls, and visiting surveys are performed (30% sample for lumbago and cerebrovascular diseases).

※ Legal basis: Designated statistics as per Article 8 of the Statistics Law (approval no. 38001)

## Results of Workers' Health Checkup

By collecting the results of workers' health checkups conducted in accordance with the Industrial Safety and Health Act, analyses are performed to investigate the distribution characteristics of the rate of occurrence of potential illness, harmful element, length of work, industry, size of workplace, and post factum measures for diseases (occupational diseases and ordinary diseases) on an annual basis.

※ Legal basis: General statistics as per Article 8 of the Statistics Law (approval no. 11809)



# R&D Activities on Occupational Safety and Health

KOSHA operates the Occupational Safety and Health Research Institute(OSHRI) to prevent industrial accidents and contribute to the development of the national economy by improving the safety and health of workers and promoting the accident prevention activities of employers through the efficient execution of R&D projects related to the prevention of industrial accidents. The institute conducts research on safety and health policies and systems, occupational safety including machinery, electricity, chemicals and construction industries, and industrial health including working environment, occupational diseases, and toxic chemical substances. In particular, KOSHA focuses on research to meet the need of customers and to use more practically an industrial accident prevention policy related to the implementation of effective R&D in 2006. As a result, the quality of R&D was upgraded; more practical research studies are also being conducted.

## Research on Safety Management Policies

KOSHA carries out research on the national safety and health management system and safety and health issues in keeping with the continuous changes in the labor environment. Statistical data relevant to industrial accidents are also provided to improve policies and systems for occupational safety and health consistently. In addition, the agency sets medium- to long-term targets for safety and health research and lays down the foundation for effective and systematic occupational safety and health research through overall coordination.

For 2006, KOSHA executed several studies to facilitate the participation of laborers in occupational accident prevention, e.g., “A Study on the Safety Awareness Level of Employers and Workers”, “A Comparative Study on the Safety Cultures of Local and Foreign Companies”, and “A Study on the Activation Method for Regular Safety and Health Education”. The agency also carried out the following studies on implementing Safety and Health Management for contingent, foreign, and elderly workers: “Study on the Safety and Health Conditions and Management Measures for Contingent Workers”; “A Study on the Measures for Establishing Regional Safety and Health Centers for Reducing Industrial Accidents at Small Enterprises”, and; “Extent and Features of Occupational Accidents Occurring Among Workers Who are Vulnerable to Occupational Accidents”.

To produce information on safety and health beneficial to the country, KOSHA conducted 3 surveys in 2006, e.g., survey of occupational safety and health trends, survey of compliance with the regulations on the inspection of hazardous equipment, and survey of the safety awareness level of employers and workers. In particular, the survey of occupational safety and health trends has been executed annually since 2002 to accumulate information on the current situations and changes in occupational health management nationwide.

## Research on Occupational Safety

The occupational safety research deals with machinery safety, electric safety, and construction safety. Each sector executes practical studies for easy adaptation to workplaces to prevent accidents efficiently, performs interdisciplinary research occasionally, and carries out joint research with the industry, universities, and other research institutes aside from international research exchange. In addition, the agency conducts in-depth analysis of the causes of recent accidents using the latest scientific techniques including various experiments and simulations and establishes comprehensive prevention measures.

KOSHA has also executed studies on various sectors, e.g., improving the performance of protective equipment against dangerous machine, measures for improving man-machine operating systems from the ergonomic point of view, improvement of testing and certification criteria, development

of explosion-proof technologies for electric machinery and equipment, and quantification of risk index for bridge construction. It also holds seminars focusing on issues, drawing public attention to topics such as safety at laboratories to foster a sound safety culture and to provide appropriate technical assistance related to accident prevention.

## Studies on Industrial Health

### Research on Industrial Hygiene

KOSHA's department in charge of industrial hygiene aims at developing the necessary strategies and technologies to protect workers against harmful physical, biological, and chemical factors. It recognizes that improving the working environment should be prioritized to prevent the occurrence of occupational diseases as part of efforts to provide technical support to workplaces with hazardous materials exceeding the exposure levels through the handling of toxic materials such as chemical substances. Thus, in addition to conducting research on the improvement of the legal system at the national level specifically on industrial hygiene, KOSHA has conducted Health Hazard Evaluations (HHE) for workers engaged in harmful work and quality assurance for workplace exposure monitoring bodies.

Other studies include those on development of charcoal tube (most widely used medium for measuring organic solvent) and manual sampler for organic solvent), propose improvement model for process which generates high-pitch noise through the analysis of relationship between noise level at workplaces and occupational disease occurrence, industrial ventilation through the by making use of Computerized Fluid Dynamics (CFD) techniques, enact/revise and assess exposure standards for harmful factors such as chemical substances, etc. To deal with recent asbestos problem, training experts and conducting quality assurance for asbestos analysis and assessing the actual condition of exposure to asbestos are now in progress.

Quality assurance is executed twice a year for metal and organic compounds at some 120 workplace environment measurement institutes in Korea. On the other hand, KOSHA participates in the Proficiency Analytical Testing (PAT) program operated by the American Industrial Hygiene Association (AIHA) four times a year as a quality assurance assessment organization. It has been kept at the level of pass (rated proficiency every year since 1992).



Performance for the Last 5 Years (unit: case)

| Item  | Total | Policy System | Safety Research | Health Research |
|-------|-------|---------------|-----------------|-----------------|
| Total | 324   | 54            | 66              | 204             |
| 2006  | 97    | 21            | 16              | 60              |
| 2005  | 54    | 9             | 13              | 32              |
| 2004  | 52    | 10            | 12              | 30              |
| 2003  | 57    | 6             | 10              | 41              |
| 2002  | 64    | 8             | 15              | 41              |

### Research for the Prevention of Occupational Diseases

Objective of studies for prevention of occupational disease is to develop techniques for early identification and prevention of the diseases, and to provide appropriate measures against the diseases.

Studies executed by KOSHA in 2006 on the prevention of occupational diseases include: Proteomic identification of modified proteins in the workers chronically exposed to aromatic organic solvent; Cohort study on occupational carcinogens (II); Effect of occupational manganese exposure on the central nervous system of welders: 1H magnetic resonance spectroscopy and MRI findings; Simple and sensitive analytical method for fluoride in urine based on Ion Selective Electrode (ISE); Development of biological monitoring method for low exposure to chemical hazard - analysis of benzene metabolite in urine by gas chromatography; and survey on health management of workers exposed to ionizing radiation.

### Research for the Prevention of Work-related Diseases

Since the late 1990s, changes in the structure of the industry and labor force and increased occupational health awareness have led work-related diseases such as cerebrovascular diseases and



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musculoskeletal disorders to be regarded as occupational diseases; thus contributing to the increased proportion of work-related diseases out of all occupational diseases. This in turn resulted in more calls received by the agency regarding the urgent measures for the prevention of work-related diseases.

Several studies have been executed by KOSHA in 2006 regarding the prevention of occupational diseases, e.g., Improvement of the working conditions among the professional bus drivers; Occupational medical diagnosis and management of work-related musculoskeletal disorders; Comparison of evaluation methods of risk factors for work-related musculoskeletal disorders in manual materials handling; and Needs and applications of the Employee Assistance Program(EAP) at the workplace in Korea.

### Epidemiological Research

#### Epidemiological Investigation

In the case of a health disorder whose causes cannot be determined through assessment of the working environment or medical examination, owners and/or industrial medical specialists may request the OSHRI to conduct an epidemiological investigation. Thereby, The OSHRI conducts epidemiological investigations through the monitoring of working environment and an investigation of working conditions, clinical tests, and the health of the workers in each department and process and the results are used to clarify the causes of occupational diseases and establish prevention measures against new types of occupational diseases.

Number of investigation cases in the recent three years (unit: case)

| Year                | 2006 | 2005 | 2004 |
|---------------------|------|------|------|
| Internal selection* | -    | -    | -    |
| External request    | 9    | 6    | 10   |

※ Internal-selected epidemiological investigation was suspended after Article 43 2 [Epidemiological Investigation] of the “Industrial Safety & Health Act” was revised in Dec. 30, 2002. Nonetheless, the revised implementing regulation of the “Industrial Safety & Health Act” (Sep. 25, 2006) allows KOSHA to conduct epidemiological investigation.

#### Diagnosis of Occupational Diseases

The Korea Labor Welfare Corporation(KLWC) may request OSHRI to diagnose occupational diseases in case determining whether a patient referred to the corporation for compensation has a work-related disease is difficult, or when a new work-related disease is suspected. The institute then reviews the current medical literature, evaluates the working environment, and conducts a comprehensive medical evaluation. It also consolidates all data, draws conclusions, and reports the findings to the corporation.

Number of cases requested for the evaluation of work-relatedness in the recent three years (unit: case)

| Item         | 2006 | 2005 | 2004 |
|--------------|------|------|------|
| Approved     | 24   | 31   | 12   |
| Rejected     | 23   | 30   | 17   |
| Undetermined | 26   | 24   | 70   |

### Chemical Management and Research on Chemical Hazard

Chemical Safety and Health Research Center seeks to contribute to the prevention of industrial accidents and occupational diseases due to chemical substances. The center has performed research in the fields of chemical toxicology, health-risk assessment and chemical regulatory & policy. Especially, the center has managed the chemical information DB in the form of Material Safety Data Sheet (MSDS) and opened that information to the public including workers, safety & health experts, managers, and industrial nurses and doctors mostly via web-site for free. The center also has taken a role as a professional adviser for setting direction and determination of the chemical policy and regulatory of the Ministry of Labor

such as MSDS & GHS implementation under the Industrial Safety and Health Act in Korea. Also, the center has operated the certified laboratories to perform Good Laboratory Practice (GLP) in the field of chemical toxicology and Korea Laboratory Accreditation Scheme (KOLAS) for the measurement of chemical and physical properties of hazardous chemicals. We also have an analytical laboratory for quantitative and qualitative analysis of chemicals.

#### Management of Chemical Information Database

The center has performed overall management of the MSDS system, which includes developing new MSDS, updating the MSDS DB, validating the reliability of MSDS used in the industrial fields and supporting MSDS education programs. The MSDS DB is opened to the public through the KOSHA website so that anyone who needs the information on chemicals can get it. (Table 1) To improve the reliability of MSDS, KOSHA performs the activity of the quality assurance on MSDS which is being circulated in workplaces. (Table 2) KOSHA also provides technical supports on hazard communication information through the cyber Q & A.

**Search of the MSDS DB for the Last 5 Years** (unit: case)

| Year         | 2006    | 2005    | 2004    | 2003    | 2002    |
|--------------|---------|---------|---------|---------|---------|
| Search cases | 619,668 | 622,204 | 341,411 | 282,003 | 230,174 |

**Results of MSDS validated on its reliability for the last 5 years** (unit: case)

| Year               | 2006           | 2005     | 2004                | 2003            | 2002           |
|--------------------|----------------|----------|---------------------|-----------------|----------------|
| No. of samples     | 56             | 39       | 36                  | 44              | 70             |
| Chemical substance | Paint thinners | n-Hexane | Metalworking Fluids | Powder coatings | Paint thinners |
| Reliability (%)    | 61.6           | 31.5     | 63.9                | 65.9            | 46.5           |

The Industrial Safety and Health Act was recently revised according to the Globally Harmonized System(GHS) of Classification and Labeling of Chemicals. KOSHA developed GHS classification program and now provides the public the customized classification and labeling concerning chemicals in compliance with GHS under the new Act through the website to accelerate the implementation of GHS in Korea.

#### Studies on Health Hazard

The center studies the toxic mechanisms and health-hazard effects of various chemicals. We have been specially interested in the chemicals which have been widely used in the industrial

fields but its toxicity has yet to be identified. The toxicologists of the center perform various experiments such as AMES test, chromosomal aberration test, in vivo micronucleus test, inhalation toxicity test and other acute and sub acute toxicity tests to evaluate the unknown toxicity of chemicals according to the OECD test guideline in GLP system. The data are used in establishing threshold limit values of chemicals and/or in updating MSDS. Moreover, KOSHA evaluates the risk of the newly-introduced chemicals, performs risk assessment of existing chemicals, and contributes to workers' health by analyzing asbestos that are both in biological sample and bulk sample from workplaces using an electron microscope for Transmission Electron Microscope (TEM).

#### Studies on Chemical Reaction Hazard

To prevent the accidents such as fire, leak, explosion and damage caused by hazardous chemicals in workplaces during transportation or chemical reaction process, the researchers of the center perform the experiments to evaluate the chemical/physical properties of chemicals and their mixtures. The researchers perform the survey of the accident cases and analyze to clarify the causes of them. Through testing and evaluating physical/chemical properties on fire/explosion and stability/reactivity, KOSHA establishes prevention strategy with scientific cause analysis when any accident is caused by chemical substances leakages. Tests on flash point, vapor pressure and others are done to meet the purpose mentioned above under the guideline of Korea Laboratory Accreditation Scheme(KOLAS).





# International Cooperation

KOSHA promoted the exchange of international information and acquired advance techniques by cooperation with advanced industrial accident prevention organizations in many countries. At the same time, the agency animatedly developed cooperative activities with international organizations as a member of the global society and established collaboration network. Furthermore, under the active cooperation with Asian countries, KOSHA contributed to the uplift of accident prevention level in related countries through providing its occupational safety and health technique and experience.

It is the age of knowledge/information oriented society, globalization, and advance of high technology worldwide, and KOSHA has been strengthening its international cooperation to confront actively those challenges in occupational safety and health areas.

## Preparation for the Successful Hosting of the World Congress on Safety and Health at Work

Together with the ILO (International Labour Organization) and the ISSA (International Social Security Association), KOSHA will be hosting XVIII World Congress on Safety and Health at Work in Seoul, Korea from Jun. 29 to Jul. 2, 2008, to contribute to the prevention of industrial accidents through the exchange of experiences and information between safety and health experts coming from every corner of the world to participate in the World Congress.

In 2006, KOSHA promoted the event in various world meetings to encourage many experts to participate in this congress, and is doing its best to prepare various programs systematically by establishing a Secretariat in 2007 for the event.

## Enhancement of Cooperative Activities with International Organizations and Professional Institutes

KOSHA has implemented active cooperative activities with the ILO, the WHO (World Health Organization), the ISSA, the

EASHW (European Agency for Safety and Health at Work), the ISO (International Standards Organization), the APOSHO (Asia-Pacific Occupational Safety and Health Organization), the ASEAN (Association of South East Asian Nations), etc.

In addition, a variety of technical cooperation agreements were concluded with 29 professional organizations of 13 countries such as, National Institute for Occupational Safety and Health(NIOSH), Chemical Safety and Hazard Investigation Board(CSB), and National Security Council(NSC) in U.S., Physikalisch-Technische Bundesanstalt(PTB), Hauptverband der gewerblichen Berufsgenossenschaften(HVBG) in Germany, and Finnish Institute of Occupational Health(FIOH) in Finland specializing in the prevention of industrial accidents worldwide to introduce advanced technologies and solidify the cooperation system through active exchange in joint research, training, and information exchange.

## Working as a Partner for Occupational Safety and Health in the Asian Region

KOSHA has actively participated in cooperative activities related to occupational safety and health by reinforcing cooperation with many countries in the Asian region and sharing with them techniques and experiences related to the



prevention of industrial accidents. In 2006, the agency dispatched experts to 5 Asian nations including Cambodia, Laos, and Sri Lanka to assess their occupational safety and health systems and provide consulting - which was well-received - to industrial sites.

A total of 42 personnel from 13 nations including Vietnam, Mongolia, and Indonesia were also invited to Korea to give them the opportunity to share information and techniques on occupational safety and health, and to benchmark to good practice from Korean company.

## Operation of the Information Center

KOSHA has published a revised glossary of terms related to occupational safety and health. Target users of the glossary include those majoring in safety engineering and safety and health staff in workplaces. The glossary consists of terminologies related to machinery, electricity, chemicals, construction, industrial medical science, and safety management as well as administrative terms related to education and public relations vis-à-vis safety and health. The completely revised dictionary has been supplemented comprehensively. Compared to the 800-word, 300-page version published in 1991 for the first time by the agency, the revised version consists of 920 pages and some 3,600 terms.

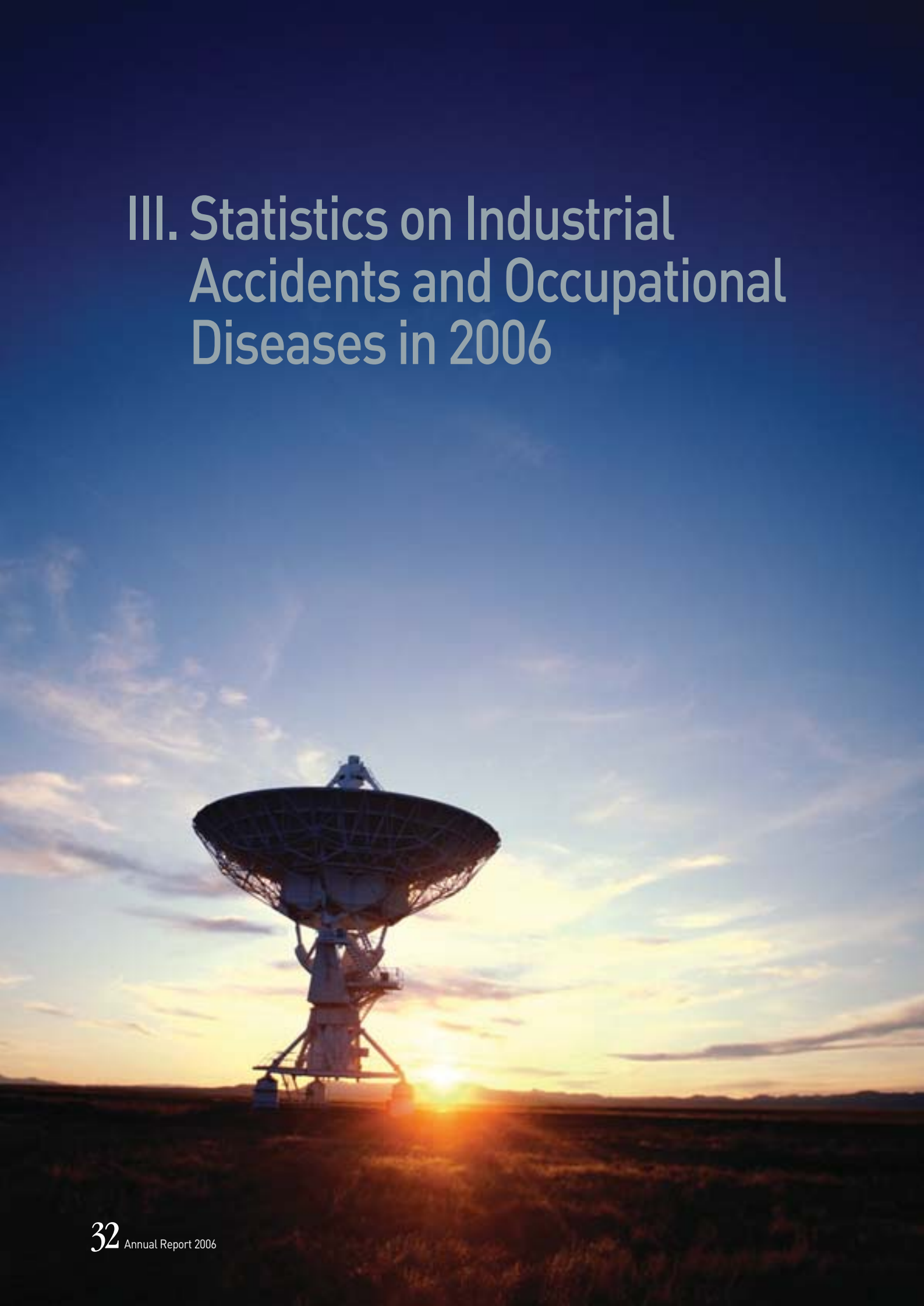
The revised version is expected to play an important role in the systemization of technical or academic terms in the field of occupational safety and health and establishment of concepts and terms. The dictionary is made available as part of the service of providing safety and health information via the Internet.

On the other hand, KOSHA translated and distributed 3 kinds of

annual collections of best practice cases of disaster prevention activities of the EASHW: the practical prevention of hazards of harmful chemical materials in 2003, the practical prevention of hazards in the construction industry in 2004, and the practical prevention of hazards of occupational noise in 2005. With the dissemination of the translated best practice cases, the safety and health personnel concerned at domestic workplaces had the opportunity to come across European best practice cases in safety and health activities easily and apply them to their works. In Feb. 2006, KOSHA launched a network website (<http://kr.osha.europa.eu>) on occupational safety and health, cooperated with the European Agency for Safety and Health at Work (EASHW), to enable people in Korea to have easy access to overseas information on occupational safety and health. EASHW plays an important role in the operation of the website, a portal providing world information on safe and health to workers, company owners, and safety and health experts stationed in EU and Korea as an alliance of the websites of safety and health agencies in European and Asia-Pacific countries. The safety and health information of all members of the world is constructed and classified into uniform topics and forms to enable a user to find the necessary information easily by clicking the homepage of the relevant nation. Furthermore, KOSHA has been operating APOSHO's website (<http://www.aposho.org>) since 1998 as part of cooperation activities related to safety and health through information exchange with the organizations concerned worldwide through the Internet. The homepage was redesigned and reconfigured, with a forum page added for active communication and information exchange between visitors. The function of enabling posting replies to other posted comments has also been enhanced. For more information on the homepage, contact [aposho@kosha.net](mailto:aposho@kosha.net).



# III. Statistics on Industrial Accidents and Occupational Diseases in 2006

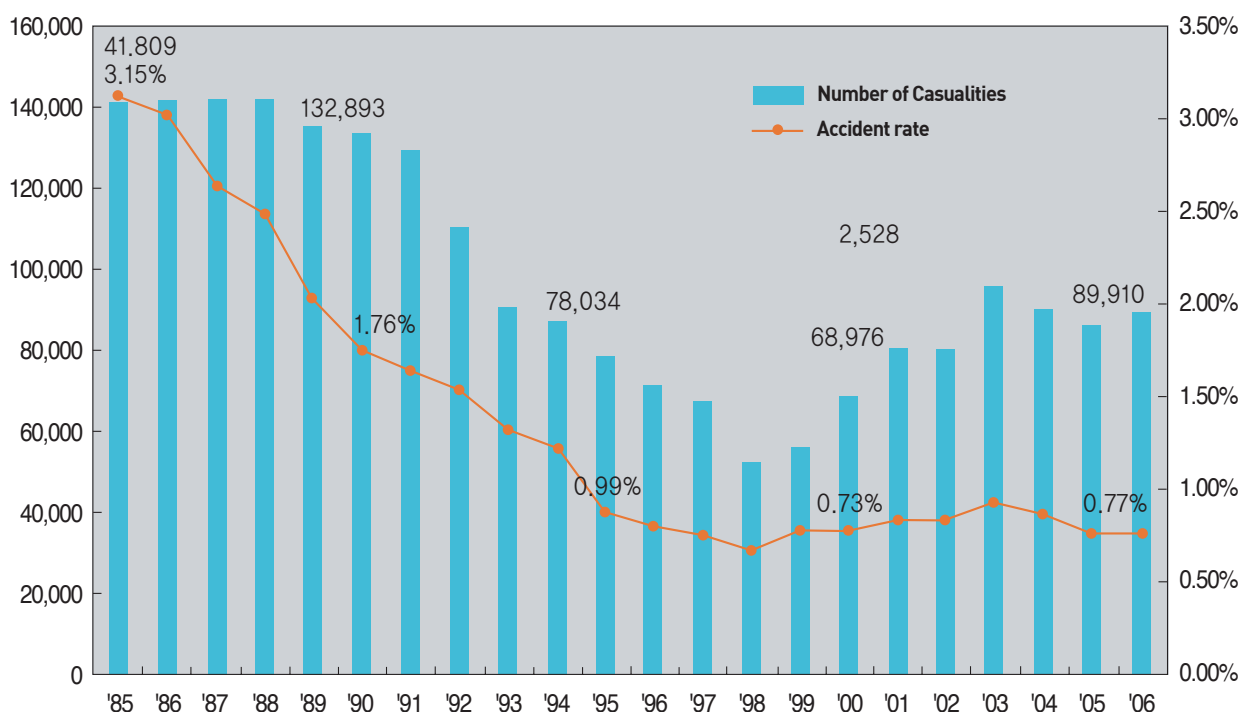


# Summary

Out of the 11,688,797 employees working at the 1,292,696 workplaces covered by the Industrial Accident Compensation Insurance Act, casualties requiring medical care for a period of at least 4 days numbered 89,910 as of 2006. The Accident rate stood at 0.77%.

Compared to 2005, the number of workers increased by 5.7% and the number of casualties increased by 5.3%. Accordingly, the accident rate stood still.

Due to a dramatic shift in the nation's economy under the control of IMF in 1998 and 1999, the number of casualties increased after showing a continuous decreasing trend in early '90s, whereas the accident rate was maintained between 0.7% and 0.8%. The coverage of the Industrial Accident Compensation Insurance Act was extended to include those with at least 1 employee in Jul. 2000; thus causing a significant increase in the number of casualties since 2001.



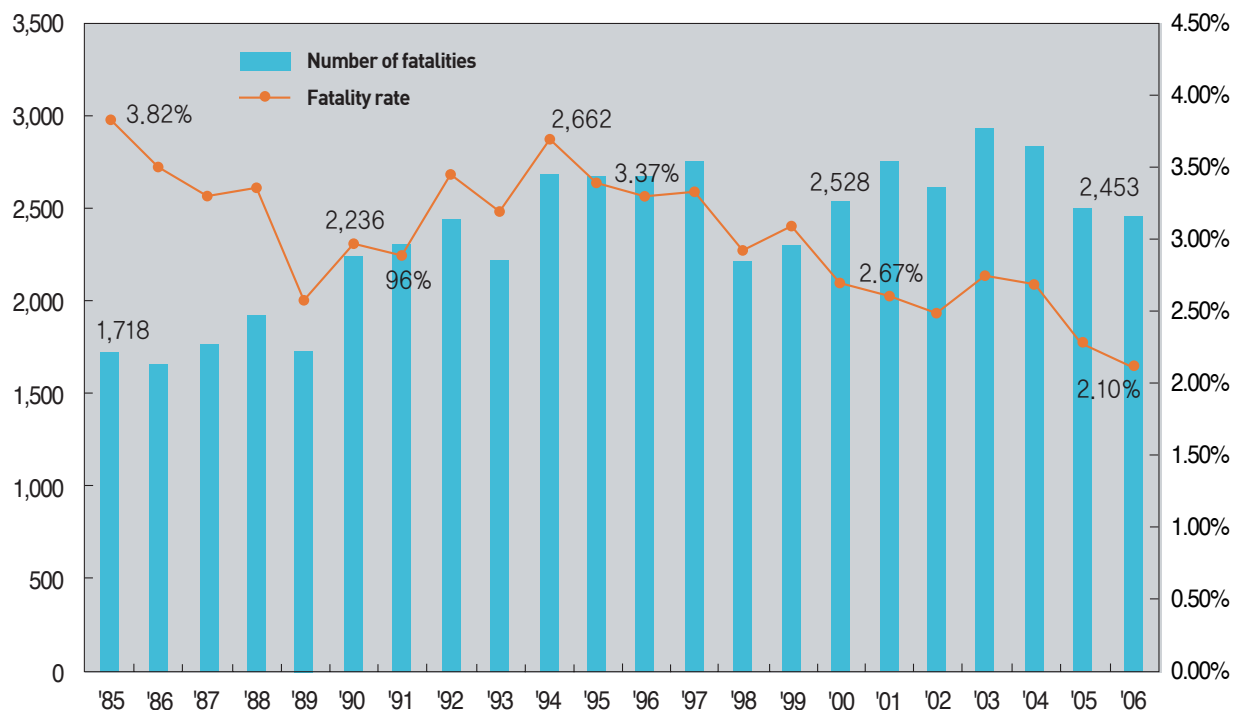
〈Number of Casualties and Accident Rate by Year〉

## Status of Fatal Accidents

The number of fatalities (Occupational fatal injuries and deaths from occupational diseases) stood at 2,453; [1,332 of which were due to occupational accidents and 1,121, due to occupational diseases].

Fatalities per 10,000 persons stood at 2.10, decreased 0.15p compared to 2.25 in 2005. The top three causes of fatal accidents include cerebrovascular/heart disease (565 fatalities), pneumoconiosis (488), and falls (427).

The number of fatalities has consistently increased since 1998 due to the growing number of victims of occupational diseases. In contrast, fatalities per 10,000 persons have decreased since 1994.

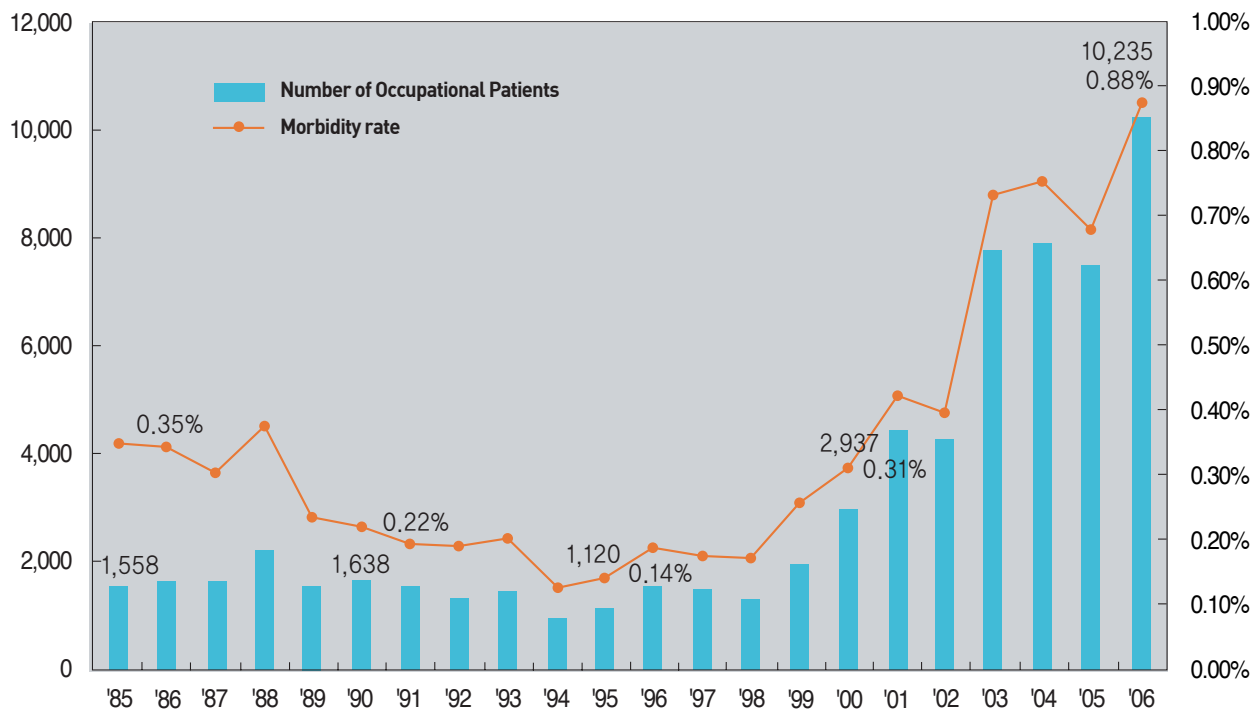


〈Number of Fatalities and Fatalities per 10,000 Persons by Year〉

# Status of Occupational Diseases

The number of victims of occupational diseases in 2006 numbered 10,235, an increase of 2,740 persons (or 36.6%) compared to the previous year's 7,495 persons.

In particular, typical occupational diseases (due to chemical, physical, or biological factors) accounted for 2,173 cases of the total in 2006, representing a decrease of 351 persons (13.9%) compared to the previous year's 2,524 persons. The number of patients suffering from work-related diseases stood at 8,062, representing an increase of 3,091 (62.2%) compared to the previous year's 4,971 persons.



〈Number of Occupational Patients and Morbidity Rate by Year〉

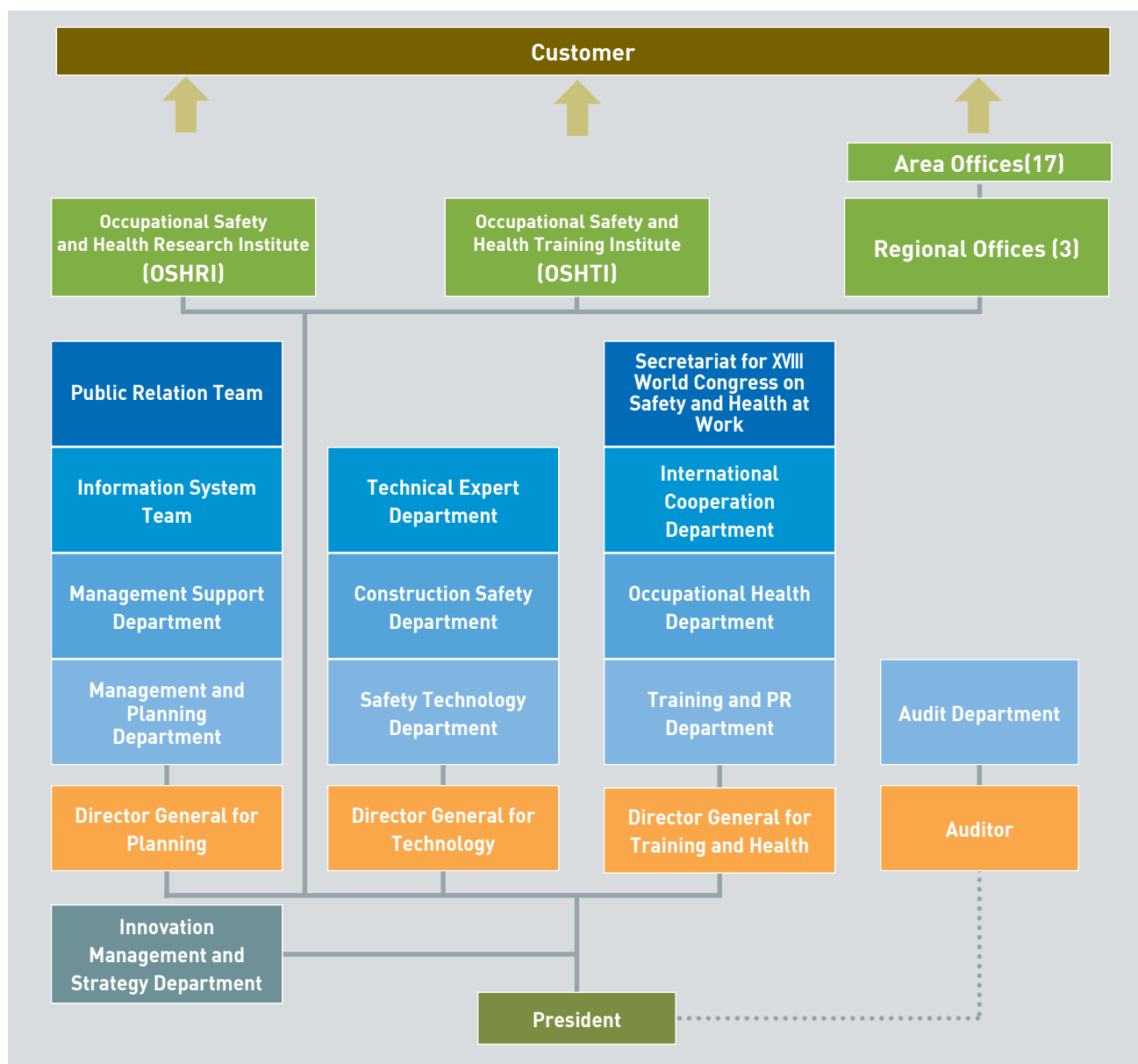
## ※ Occupational Safety and Health Indicators

- Accident rate: (Number of workers killed or injured due to accident/Number of workers covered by the Industrial Accident Compensation Insurance Act) × 100
- Fatalities per 10,000 persons: (Number of workers killed due to accident/Number of workers covered by the Industrial Accident Compensation Insurance Act) × 10,000
- Morbidity rate: (Number of workers who become ill at work/Number of workers covered by the Industrial Accident Compensation Insurance Act) × 1,000



# Appendices

## Organization Chart



## Number of Employees

(unit: person)

| Total | Headquarters | OSHRI | OSHTI | Regional Offices(3) | Area Offices(17) |
|-------|--------------|-------|-------|---------------------|------------------|
| 1,319 | 172          | 161   | 45    | 236                 | 705              |

## Contact Information

| Office  | Location   | Phone          | FAX            | Postal Code |
|---|--|----------------|----------------|-------------|
| KOSHA Headquarters  | Gusan-dong, Bupyeong-gu Incheon, 34-4  | 82-32-5100-500 | 82-32-512-8311 | 403-711     |
| Occupational Safety and Health Research Institute (OSHRI) | Gusan-dong, Bupyeong-gu Incheon, 34-4  | 82-32-5100-901 | 82-32-518-6483 | 403-711     |
| Chemical Substances OSH Center                            | 104-8, Munji-dong, Yuseong-gu, Daejeon, Korea  | 82-42-869-0304 | 82-42-863-8361 | 305-380     |
| Occupational Safety and Health Training Institute (OSHTI) | Gusan-dong, Bupyeong-gu Incheon, 34-4  | 82-32-5100-934 | 82-32-513-2749 | 403-711     |
| Seoul Regional Office                                     | Yuhan Building 14floor, Deabang-dong, Dongjakgu Seoul, 49-6  | 82-2-828-1600  | 82-828-1629    | 156-754     |
| Northern Seoul Area Office                                | Bongnae-dong 1-ga, 10(woori Building7-8th floor)   | 82-2-3783-8300 | 82-2-3783-8309 | 100-161     |
| Incheon Area Office                                       | Gajung-dong 491, Su-gu, Incheon  | 82-32-5707-200 | 82-32-574-6176 | 404-230     |
| Bucheon OSH Center  | 2 <sup>nd</sup> floor, Samjin Building, 54-8 Nae-dong, Ojeong-gu, Bucheon, Gyeonggi-do, Korea            | 82-32-680-6510 | 82-32-681-6533 | 421-805     |
| Southern Gyeonggi Area Office                             | Lui-dong san 111-8, Paldal-gu, Suwon-si (Gyeonggi small and medium enterprises)                          | 82-32-259-7149 | 82-32-259-7110 | 443-766     |
| Seongnam Center   | 4th floor, Sogok Hall, 106-2, Geumgok-dong, Bundang-gu, Seongnam, Gyeonggi-do, Korea                     | 82-32-785-3300 | 82-31-785-3333 | 463-804     |
| Northern Gyeonggi Area Office                             | Uiyeongbu 2-dong 567-1, Gyeonggi-do(Solbutbuilding 5th floor)  | 82-32-841-4900 | 82-32-878-1541 | 480-850     |
| Western Gyeonggi Area Office                              | 2 <sup>nd</sup> & 3 <sup>rd</sup> floors, IBK Building, 519, Gojan-dong, Ansan, Gyeonggi-do, Korea       | 82-31-481-7599 | 82-31-413-0062 | 425-020     |
| Gangwon Area Office                                       | Onui-dong, 513 Chuncheon-si, Gangwon-do (Korea Teacher's Mutual Fund Buld 2nd floor)                     | 82-33-243-8310 | 82-32-243-8315 | 200-938     |
| Gangneung OSH Center                                      | 3rd floor, Seongho Building, 173, Okcheon-dong, Gangneung, Gangwon-do, Korea                             | 82-33-644-3820 | 82-33-644-3823 | 210-934     |
| Busan Regional Office                                     | Banyeo 1-dong 1486-49, Haeundae-gu, Busan  | 82-51-526-1006 | 82-51-526-1007 | 612-815     |
| Yongsan OSH Center  | 6 <sup>th</sup> floor, Grand Building, 483-14, Bukbu-dong, Yongsan, Gyeongsangnam-do, Korea              | 82-55-371-7510 | 82-55-372-6916 | 626-800     |
| Daegu Area Office   | Namsan-dong 375, Jung-gu, Daegu (Allianz Life Insurance Buliding 8th floor)                              | 82-53-609-0500 | 82-53-356-0084 | 700-723     |
| Ulsan Area Office   | Dal-dong 615-8, Nam-gu, Ulsan(KookminBank Building)  | 82-52-226-0515 | 82-52-260-6997 | 680-801     |
| Eastern Gyeongbuk Area Office                             | Jukdo 2-dong 703-30(HwangJea Building), Buk-gu, Pohang-si, Gyeongsangbuk-do                              | 82-54-271-2010 | 82-54-271-2019 | 791-845     |
| Northern Gyeongbuk Area Office                            | 4-5 <sup>th</sup> floors, Small & Medium Business Center, 92-30 Imsu-dong, Gumi, Gyeongsangbuk-do, Korea | 82-54-478-8000 | 82-54-453-0108 | 730-350     |
| Gyeongnam Area Office                                     | Yongho-dong 7-3, Changwon-si, Gyeongsangnam-do   | 82-55-269-0510 | 82-55-269-0051 | 641-727     |
| Gwangju Regional Office                                   | Usan-dong 1589-1, Gwangsan-gu, Gwangju(Trade Hall Building)  | 82-62-949-8700 | 82-62-943-8278 | 506-721     |
| Daejeon Area Office                                       | Ojeong-dong449-7, Daedeok-gu, Daejeon  | 82-42-620-5600 | 82-42-625-3217 | 306-819     |
| Chungbuk Area Office                                      | Gagyong-dong 1171(KT Building3rd Floor), Heungdeok-gu, Choingju-si, Chunchongbuk-do                      | 82-43-230-7111 | 82-43-236-0371 | 361-800     |
| Chungnam Area Office                                      | Seongjeong-dong 721-8, Cheonan-si, Chungcheongnam-do (LG High Plaza Building)                            | 82-41-570-3400 | 82-41-579-8906 | 330-170     |
| Jeonbuk Area Office                                       | Inhu-dong 1-ga 807-8 (Ministry of Labor synthetic government building 4th floor), Deokjingu, Jeonju      | 82-63-240-8500 | 82-63-245-4912 | 561-827     |
| Eastern Jeonnam Area Office                               | SunWon-dong 1285, Yeosu  | 82-61-689-4900 | 82-61-689-4990 | 555-801     |
| Jeju Area Office  | Yeon-dong 251-1(Daishin securities Building), Jeju-si Jeju-do  | 82-64-797-7500 | 82-64-747-5463 | 690-813     |

# XVIII World Congress on Safety and Health at Work

Safety and health at work : A societal responsibility

## The World Congress

The World Congress on Safety and Health at Work is one of the biggest international fora in the field of occupational safety and health.

It contributes to the prevention of occupational accidents and the protection of workers' health through the exchange of new technologies and information related to safety at workplaces, exchange of experiences and knowledge on preventing occupational diseases, and safety and health cooperative projects.

### Objectives

- Provides a forum for the exchange of new information and practices with the aim of promoting safety and health at work
- Reinforces and builds networks and alliances while laying the groundwork for cooperation and strengthening relationships among all concerned
- Provides a platform for the development of knowledge, strategic and practical ideas that can immediately put into use

### Motto

Safety and health at work : A societal responsibility

### Main Topics

- Strategies and Programmes of Safety and Health for the Future
- Impact of Changes of Working Conditions on Workers' Protection
- New Challenges and Opportunities in Occupational Safe and Health
- Safety and Health Management Systems

## Congress Overview

### Dates

June 29 ~ July 2, 2008

### Venue

COEX Convention Center, Seoul, Korea

### Organizers

- International Labour Organization (ILO)
- International Social Security Association (ISSA)
- Korea Occupational Safety and Health Agency (KOSHA)

### Participants

The World congress aims at persons who are directly or indirectly dealing with safety and health at work :

- High-level government officials, high-level decision makers, CEOs, and labour leaders
- Safety engineers and technicians, hygienists, and occupational scientists
- Occupational physicians and company doctors as well as persons working in the field of occupational medicine
- Labour inspectors, and technical factory inspectors
- Professors, instructors, trainers, and teachers in the field of education
- Workers and their representatives
- Employers and their organizations
- Decision makers in the public sector and the social security sector
- Public and non-public organizations
- International and regional organizations
- Manufacturers and importers of safety goods
- Experts in communication and public relations
- Media representatives, and journalists

### Official languages

English, French, German, Spanish, and Korean

### Official Website

[www.safety2008korea.org](http://www.safety2008korea.org)

# XVIII World Congress on Safety and Health at Work

Safety and health at work : A societal responsibility

## Programme Overview

### Safety and Health Summit (Jun. 29, 2008)

For the first time in its history, the Safety and Health Summit will be held on the opening day of the World Congress. Selected leaders and decision-makers committed to the improvement of occupational safety and health will be invited to reflect on safety and health at work as a basic human right and a means to economic growth and development. Participants will include ministers responsible for occupational safety and health, industry leaders, and high-level representatives from employers' and workers' organizations, as well as leading occupational safety and health specialists from around the world.

The purpose of the Summit will be to stimulate political commitment and demonstrate that good occupational safety and health policies create a win-win situation for employers, workers and society at large. As a result, occupational safety and health should have a more prominent place on national and international agendas.

### Plenary Session (Jun. 30, 2008)

In the Plenary Session, the renowned world leaders of safety and health will deliver keynote speeches on the realities and methods of realization related to the four main topics of the World Congress. The issue of occupational safety and health is not a matter for the responsibility of a government, a company or individual but one that must be taken care of by every body of the society with the mindset of the respect of human in the whole society. If everybody of society such as government, labor and management fulfills the responsibility for occupational safety and health, the people will be able to trust these entities and they can trust each other. Furthermore, companies can become globally leading companies that are respected by the people.

The Plenary Session will surely be a good opportunity to understand the prospect of occupational safety and health, establish cooperative relationships with leaders in labor, management and government as well as experts in occupational safety and health, form networks with worldwide experts in occupational safety and health and share a firm awareness about the responsibilities of every part of society for occupational safety and health.

### Regional Meetings (Jul. 1, 2008)

These meetings will be devoted to sharing experiences and promoting dialogues in the regions of the world including the Americas, Arab States, Europe, Africa and Asia-Pacific.

Regarding the Seoul Declaration on Safety and Health at Work, the pending issues in each continent will be presented and discussed in the Regional Meetings to prepare a turning point for the safety and health at work. By adopting a cafe-style discussion method, experts in occupational safety and health will have ample opportunities to grasp the details of occupational safety and health in each continent. Those wishing to participate in the Regional Meetings are requested to indicate participation in the Regional Meeting during the registration.



# XVIII World Congress on Safety and Health at Work

Safety and health at work : A societal responsibility

## Technical Sessions (Jun. 30 ~ Jul. 1, 2008)

It is a place for the discussion of technical matters requiring the realization of the four main topics of the World Congress. The sessions are divided into six sessions held respectively by the ILO, the ISSA and the KOSHA. Expert speakers have been scheduled to address the issues presented in the Safety and Health Summit and the Plenary Session. The members of the professional institutes for occupational safety and health around the world will participate in these dynamic sessions for the presentation of the cutting-edge technologies.

### Monday, June 30, 2008, 13:30 ~ 15:45

| Session               | Topic  | Sub-topic  | Organizer | Venue                  |
|-----------------------|--|--|-----------|------------------------|
| Technical Session I   | Safety and Health Management Systems                               | Concepts of the Safety and Health Management Systems                   | ILO       | Grand Ballroom 103     |
| Technical Session II  | Impact of Changes of Working Conditions on Workers' Protection     |  | ISSA      | Grand Ballroom 101/102 |
| Technical Session III | New Challenges and Opportunities in Occupational Safety and Health | New Challenges and Opportunities in Occupational Safety and Health (1) | KOSHA     | Grand Ballroom 104/105 |

### Tuesday, July 1, 2008, 09:00 ~ 12:00

| Session              | Topic  | Sub-topic  | Organizer | Venue                  |
|----------------------|--|--|-----------|------------------------|
| Technical Session IV | Strategies and Programmes of Safety and Health for the Future      |  | ILO       | Grand Ballroom 101/102 |
| Technical Session V  | New Challenges and Opportunities in Occupational Safety and Health | New Challenges and Opportunities in Occupational Safety and Health (2) | ISSA      | Grand Ballroom 103     |
| Technical Session VI | Safety and Health Management Systems                               | Best Practices of Safety and Health Management Systems                 | KOSHA     | Grand Ballroom 104/105 |

## Symposia (Jun. 30 ~ Jul. 2, 2008)

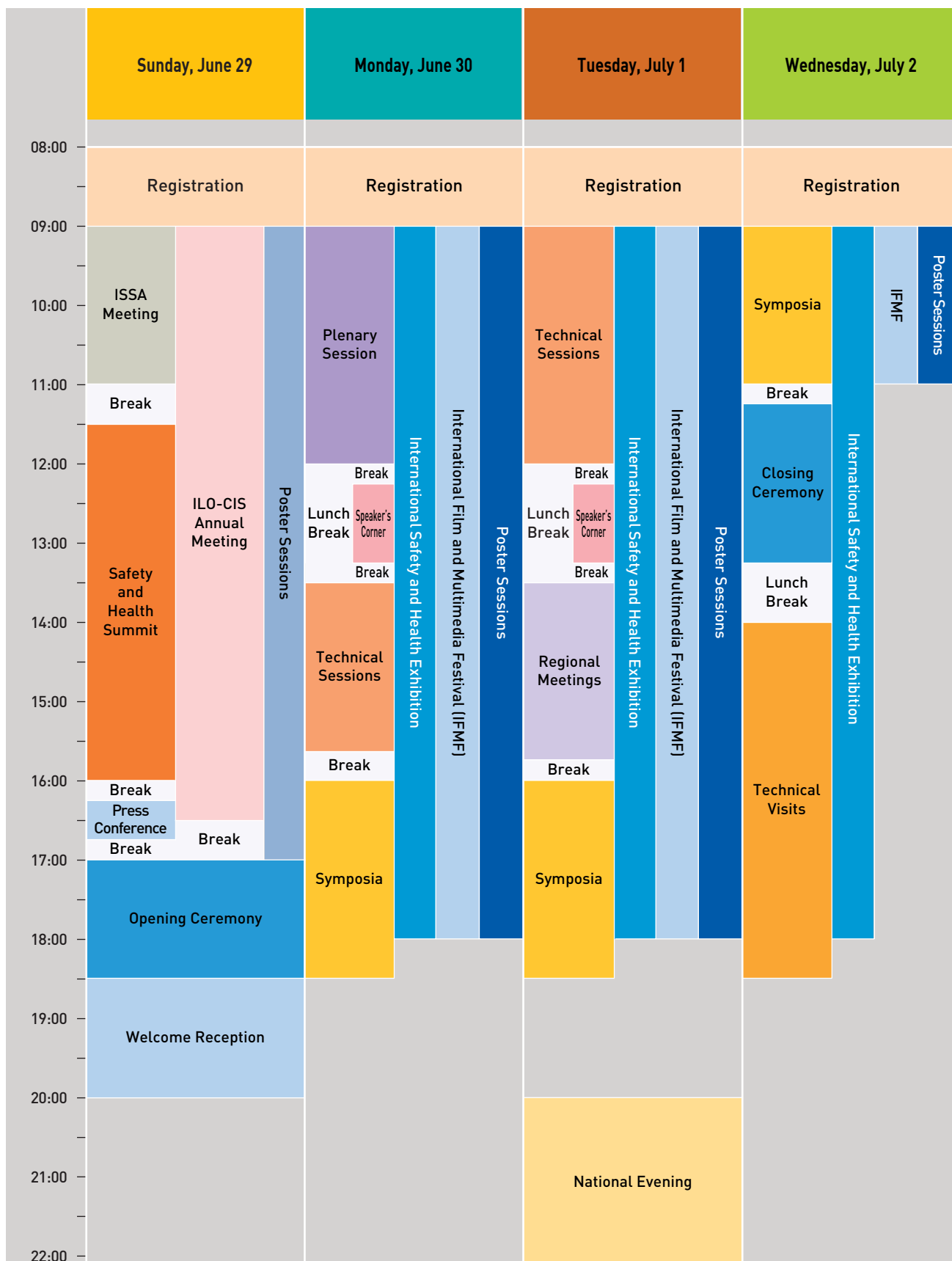
As an integral part of the World Congress, a series of two hours or two and half hours symposia will take place during the event. The symposium will be held in 5 official languages (English, French, Spanish, German and Korean) with simultaneous interpretation service. Matters regarding the simultaneous interpretation will be decided through the mutual consultation with the co-organizers of the World Congress and the symposium organizers.

Institutions or individuals that are performing or interested in occupational safety and health are requested to fill out the call for papers attached to the 2nd Announcement of the World Congress and send them to the symposium organizers by November 30, 2007 referring to the list of the symposium organizers. The symposium organizers will give notice by December 31, 2007 about the presenters of the symposium after screening the received applications for presentation. Those appointed to be presenters at the symposia are requested to prepare the papers for presentation according to the method posted on the official website of the World Congress ([www.safety2008korea.org](http://www.safety2008korea.org)) and send them to the symposium organizers by April 15, 2008.

## Poster Sessions (Jun. 29 ~ Jul. 2, 2008)

The poster sessions will be held for the exhibition of domestic and overseas papers, cases of development and best practices in the area of occupational safety and health as well as on the spot conversations with the authors. The KOSHA is planning to print out the posters and display them gratis for the participants of the poster session. Please fill out the call for papers attached to the 2nd Announcement of the World Congress and send them to the Congress Secretariat by November 30, 2007. The KOSHA will notify applicants of the final confirmation for inclusion in the poster session after review of the applications. Those accepted to the poster session are requested to send a draft of the poster to the Congress Secretariat by April 15, 2008 referring to the method of the preparation of posters as explained in the official website of the World Congress ([www.safety2008korea.org](http://www.safety2008korea.org)).

## The World Congress Timetable





**KOREA OCCUPATIONAL  
SAFETY AND HEALTH AGENCY**

34-4, Gusan-dong, Bupyeong-gu,  
Incheon, 403-711, Republic of Korea  
Tel : +82-32-5100-740~9 Fax : +82-32-512-8482  
Email : [overseas@kosha.net](mailto:overseas@kosha.net)  
<http://www.kosha.or.kr>