XVIII World Congress on
Safety and Health at Work

Annual Report
2007

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KOSHA

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KOREA OCCUPATIONAL
SAFETY & HEALTH AGENCY

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President's Message

Realization of Valuable Activities for the Prevention of Industrial Accidents through a Global Network

The Efforts for 20 Years to Make a Safe and Healthy Industrial Society

Established on December 9, 1987, KOSHA has done its utmost to prevent industrial accidents for the protection of employees' lives and health and the achievement of danger-free workplaces.

Before the establishment of KOSHA, the system for the prevention of industrial accidents and the activities for the prevention of industrial accidents in Korea were weak and business owners lacked in the interest in the safety and health at workplaces due to the performance-oriented management. In such a situation, KOSHA has implemented effective projects for the prevention of industrial accidents including the Technical support for the prevention of industrial accidents, education for industrial safety and health and R&D activities in cooperation with the labor, management and politicians. As a result, KOSHA contributed much to the reduction of the accident rate from 2.66% in 1987 to 0.77% in 2006.

Realization of the Value of Human Respect by Preventing Industrial Accidents

To our regret, many workers are injured or killed at their workplaces by industrial accidents and occupational diseases despite our multi-faceted efforts.

The reason that we do not regard workers as consumables but try to keep them safe and healthy is not merely that we hope the economy can grow and our lives will become more affluent with their labor. It is because humans themselves are the precious value and the workers are our family, colleagues and human beings who have the right to work in safety and health.
In 2007, KOSHA did its best to make the agency a professional agency for the prevention of industrial accidents to be trusted by its customers through the Technical support for the prevention of industrial accidents to move our customers, expansion of professional projects to fit customers' demand and reinforcing customer-oriented organizational capabilities.

Making Common Efforts to Meet the Challenges of Industrial Safety and Health through a World Network

Even today, numerous industrial accidents are occurring in poor working environment throughout the world, and we are facing with a society of higher risks where much more accidents and occupational diseases are expected to occur due to the aging of workers, aggravated workloads, large industrial facilities and the rapid increase in the use of various chemical materials.

In the current society of globalization and information, industrial accidents are not confined to the damage of a person or company but extended to the damage of the society, nation and the whole world. Thus each nation is required to fulfill the responsibility for the prevention of industrial accidents.

Therefore, the government of each nation and the institutes responsible for occupational safety and health are making more efforts to protect workers from the danger of industrial accidents and occupational diseases and are joining hands to respond effectively to various challenges by establishing a global network of cooperation for occupational safety and health.

Development of occupational safety and health in the world and bringing bright future by activating international cooperation

According to the policy of the Korean government to strengthen the cooperation with international organizations and expand technical support for developing countries, KOSHA is trying to solve challenges by establishing participating in various cooperative networks. As part of such efforts, KOSHA is holding the 18th World Congress on Safety and Health at Work and the 24th APOSHO Annual Conference from June 29 to July 2, 2008 in Seoul to contribute to the development of international occupational safety and health through the exchange of the technologies and information on occupational safety and health around the world.

If we continue to do our best for the prevention of accidents with hard efforts and innovation, a safer, brighter and more affluent future will be certainly achieved to guarantee the safety and happiness of the workers and contribute to economic development. I am looking forward to the active cooperation and encouragement of the professional institutes and the people concerned with the prevention of accidents.

Thank you.

President, KOSHA

Ⅰ. Introduction to KOSHA

The Korea Occupational Safety & 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 Industrial 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 2007

To prevent industrial accidents at workplaces, KOSHA set the 'customer-oriented technical support for safety & health to protect the life and health of the working people' as the goal in the prevention of industrial accidents in 2007. For the effective achievement of the goal, the agency focused on 7 main projects such as the technical support for small & medium sized enterprises, encouraging self-regulated safety management activities, prevention of serious industrial accidents, securing the safety of dangerous machinery and equipment, reinforcing the management of dangerous construction sites, systematic management of chemical materials and prevention of occupational diseases, and the strengthening of safety awareness and R&D. As a result, the effects of the prevention of industrial accidents were achieved to the fullest.

To look at the contents of the 7 main projects

First, in the area of the technical support for small & medium sized enterprises, dangerous elements were removed to provide pleasant working environment facility improvement funds were subsidized for middle and small enterprises which cannot work actively for the prevention of industrial accidents. Furthermore, service agencies were used to work for the workplaces that could not be supported directly by KOSHA.

Secondly, in the area of encouraging self-regulated safety management activities, the techniques for self-regulated management of comprehensive safety & health service and safety management were transferred to workplaces to encourage the activities of the workplaces for the prevention of industrial accidents.

Thirdly, in the area of the prevention of serious industrial accidents, KOSHA supported the establishment of process safety management system focusing on petrochemical factories which are vulnerable to large-scale accidents.

Fourthly, in the area of securing the safety of dangerous machinery and equipment, the safety and reliability were secured by the testing and approval of the machinery, equipment and personal protective equipment and tools and as a result the basis for the system of safety certification and improvement of safety examination were established to secure fundamental safety in the long run.

Fifthly, in the area of reinforcing the management of dangerous construction sites, the construction sites were divided into those with the danger of large-scale accidents and medium & small sized constriction sites and then technical support for the prevention of industrial accidents to eliminate harmful and dangerous elements were provided for each stage and vulnerable period of the construction.

Sixthly, in the area of systematic management of chemical materials and prevention of occupational diseases, the realities of the distribution and usage of the chemical materials that have recently caused occupational diseases were examined for each stage to lay the groundwork for the prevention of occupational diseases. In addition, various projects including the improvement of working environment, the prevention of cardio-cerebrovascular diseases, the support for workers' health and the prevention of musculoskeletal disorders were conducted to prevent occupational diseases.

Finally, in the area of the strengthening of safety awareness and R&D, customer-oriented safety & health education for business owners and workers, PR activities to inspire safety awareness and campaigns for safety culture were implemented. Furthermore, policies related to industrial safety & health were developed and practical researches were strengthened to use the results of the R&D for the actual workplaces.

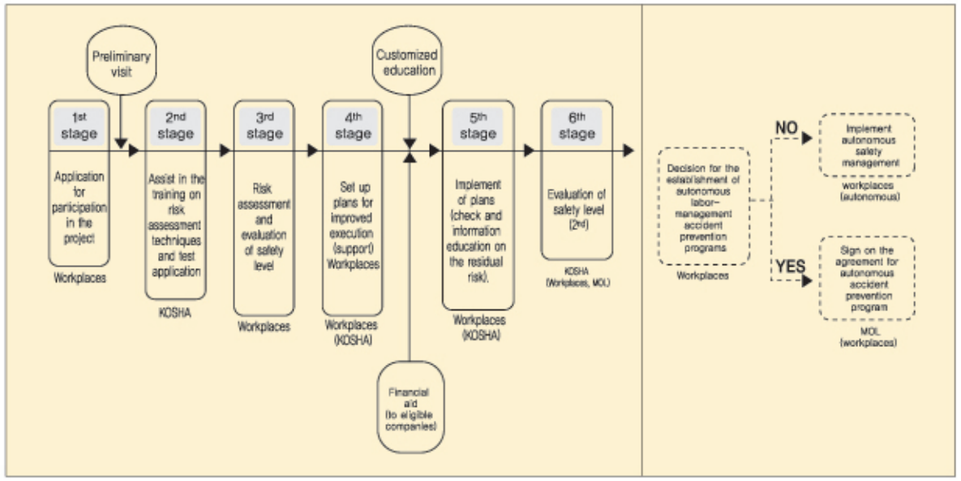
Technical Support for the Improvement of Occupational Safety and Health

Technical Support 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 all manufacturing workplaces based on the 4-M Risk Assessment Method, technical assistance 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 Support to Workplaces Vulnerable to Industrial Accidents

Comprehensive Assistance and Support Program for Self-regulated Safety Management

The program is designed to reduce accident through not only guiding and inspecting the implementation of the detailed technical requirement set by regulations and laws accidents but also assisting in the establishment of a self-regulated safety management system that will be linked to the identification and elimination of hazardous elements based on the risk assessment done jointly by the labor and the management. In addition, KOSHA contributes to the improvement of the level of safety and health and prevention of industrial accidents by assisting in safety activities until the workplaces develop as excellent workplaces in terms of safety and health.



【 Records of Performances by Years 】

(Unit: site)

Total	2007	2006
685	468	217

Technical Assistance Program Tailored According to 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.

【 Performances for the past 5 Years 】

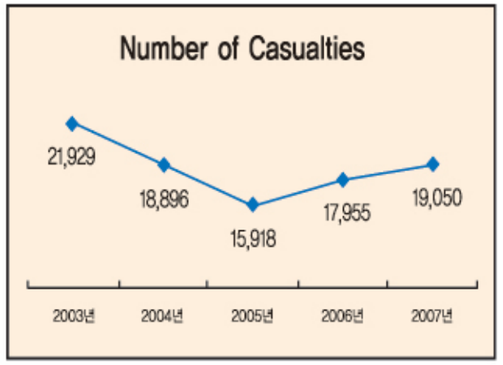
Total	2007	2006	2005	2004	2003
9,857	2,025	2,607	1,957	928	2,340

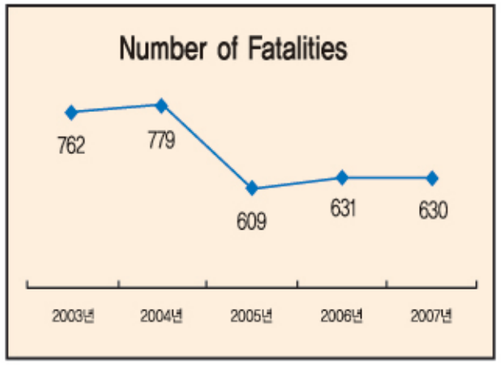
Technical Assistance for Safety and Health at Construction Sites

The construction market in Korea as of Oct. 2007 was KRW94,622.6 billion in total, which is an increase of 20.4% from the previous year. The public sector increased by 23.0% and the private section increased by 19.5%. There was a remarkable increase in civil engineering section in the area of roads, bridges, harbors and airports. In the construction sector, residential buildings grew considerably while the market of non-residential buildings was slow due to the price ceiling system.

The number of casualties in construction sites is decreasing with the multi-faceted programs of KOSHA, the number of the casualties of industrial accidents is on the rise as the attempts to cover up of industrial accidents are disappearing with the revision of laws to give disadvantage to those who try to cover up industrial accidents.

【 Number of Industrial Accidents in Construction Industry 】





Technical Support for Large Construction Sites

To secure the fundamental safety for construction works more than a certain size, the examination system for the plan to prevent hazard and danger is being executed as an advance safety inspection system. According to this system, the owner of a project must submit the plan to prevent hazard and danger before the start of the construction works to be reviewed for the design and safety measures and take necessary safety and health measures. In addition, during the period of the construction works, it is regularly checked whether the safety and health measures are implemented as stated in the plan to make continuous efforts to prevent industrial accidents that may occur during the construction works.

※ Construction Projects requiring submission of the "Hazard and Danger Prevention Plan at Construction Site" are:

- Buildings higher than 31m or those constructed with fixtures.
- Buildings larger than 30,000㎡ in total, or cultural or convention facilities of accumulated area larger than 5,000㎡
- 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

【 Examinations and Confirmations in the Last Five Years 】

(Unit: site)

Item	2007	2006	2005	2004	2003
Review	2,254	1,928	1,524	2,084	2,374
Confirmation	7,025	5,895	6,619	8,915	9,075

In addition, the self-regulating labor-management program to prevent industrial accidents must be submitted for the construction sites of SOC construction and other construction sites that have the possibility of large industrial accidents and of which invoice exceeds KRW220 billion to be reviewed and evaluated for the due performance.

Technical Support for Medium sized Construction Sites

The workers in medium sized construction sites of which invoice is less than KRW12 billion lack in safety awareness, safety management system and self-regulated safety management activities in comparison to large construction sites.

Therefore, KOSHA inspected such medium sized construction sites in cooperation with MOL and spotted dangerous elements that can cause accidents and suggested measures for technical improvement. In addition, measures were taken to eliminate the possible causes of accidents such as the collapse of soil and mold posts, inundation, electric shock and fire before the start of the vulnerable thawing seasons, rainy seasons and winter seasons.

【 Technical Support for Medium sized Construction Sites in the Last 5 Years 】

(Unit: site)

Project Name	2007	2006	2005	2004	2003
Technical Support for the Inspection & Supervision of Construction Sites	3,326	3,132	3,735	3,338	3,107
Technical Support for the sites with the risk of Large Accidents	512	543	245	276	-

Technical Support to Small Construction Sites with many Accidents

KOSHA provided 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. As a result of such efforts, the level of safety awareness among the concerned people in these sites has been improved.

【 Technical Support to Small Construction Sites in the Last Five Years 】

(Unit: site)

Project Name	2007	2006	2005	2004	2003
Technical Support to Small Construction Sites	13,179	15,378	15,515	12,467	12,525

Promotion of Self-regulated Safety and Health

Unlike manufacturing industry, the construction industry has a separate head office and construction sites and thus it is necessary to promote self-regulated safety and health activities by establishing organic safety management system on company level instead of individual site management for effective safety management.

Therefore, KOSHA is distributing and certifying the 'KOSHA 18001 Program for Construction Industry,' a kind of safety and health management system, to the clients of construction projects, contractors, and subcontractors to enhance the level of self-regulated safety & health activities among construction companies. Furthermore, to assist the safety & health activities in construction companies with poor organization for safety management, comprehensive technical support for self-regulated safety was made for the head offices and construction sites after receiving applications from construction companies for technical support.

【 Comprehensive Technical Assistance for Self-regulated Safety in Construction in the Last Five Years 】

(Unit: site)

Project Name	2007	2006	2005	2004	2003
Comprehensive Technical Assistance for Self-regulated Safety in Construction	1,693	1,435	1,180	1,171	1,335

Management and Improvement of Hazardous Working Environment to Prevent Occupational Diseases

Based on data on industrial accident insurance, 6 of the chemicals that have caused occupational diseases in Korea were chosen, and their usage and treatment in 524 workplaces were investigated. The actual status of exposure among workers exposed to them and the highly risky and harmful processes were analyzed and effective control was suggested.

※ Chemicals chosen in 2007: Styrene, Toluene, Formaldehyde, Acrylamide, Lead (including lead compounds), Nickel (including nickel compounds and nickel carbonyl)

The results of the investigation were used as basic data for the development of the "Korean Control Banding & Control Toolkits for Chemicals" to aid in understanding the danger of chemical substances and control for their management.

※ Korean Control Banding & Control Toolkits for Chemicals: A Web program that assists with the self-regulated evaluation of the risk of the treatment process of the chemicals materials by company owners or workers and the procurement of the information on the hazard of chemicals and control for improvement.

Health management pocketbooks were issued to workers (accumulated no. of persons: 4,693 as of the end of 2007) to monitor the workers exposed to carcinogens such as asbestos for more than a certain period. The workers currently exposed to carcinogenic chemicals are evaluated and recorded in 5 levels according to their exposure level and technical support was provided to reduce the exposure level. In addition, retired workers are supported for special health check-up once a year for continuous health management and the early diagnosis of occupational diseases.

To improve the reliability of the results of the work environment monitoring conducted by each of the 117 workplaces, such results were evaluated and analyzed comparatively. Through such process, problems in the appropriateness of the work environment monitoring and reliability of the exposure level were identified, and improvement measures, suggested to enhance the reliability of the results of the work environment monitoring.

The Workplace Health Partner Program was implemented in 404 workplaces to provide consultation and technical assistance by the voluntary request of the workers or company owners. The technical assistance was provided in 3 levels (information assistance, on-site evaluation assistance and precise assistance) according to the contents of the requests and the level of problem solution. Through the program, the causes of health problems were found and measures for the improvement of working environment were provided.

Assistance for the improvement of working environment was given to 313 workplaces including hospitals, small construction sites and the workplaces with dangerous processes that can cause suffocation by lack of oxygen. Especially, an MOU for the assistance with the prevention of industrial accidents was signed with a local government (Gyeonggi-do Province) to provide education for the prevention of suffocation and improve the system to clearly insert the clause of the prevention of suffocation accident in the construction projects executed by the local government for the establishment of a prevention system.

【 Occurrence of Occupational Diseases for the Past 5 Years 】

2007	2006	2005	2004	2003
1,964	2,173	2,527	2,492	1,905

Promotion of Workers' Health and Projects to Prevent Cardio-cerebrovascular Diseases

Health promotion programs for workers were implemented to prevent occupational diseases such as cardio-cerebrovascular diseases caused by the aging of workforce, changes in diet and lack of exercise elevation of job stress and changes in lifestyle.

Comprehensive health assistance and promotion program were supported for 206 workplaces to implement self-regulated health promotion programs and precision physical strength check-up, exercise prescription and consultation were done for 19,296 workers. 27.0% of the workers of the workplaces where the 'Stop Smoking Program' was being launched succeeded to quit smoking and more than 10% of the workers who participated in the physical strength improvement program were improved with their level of physical strength.

Technical assistance was provided to 1,500 workplaces with more than 50 workers where cardio-cerebrovascular diseases occurred to promote workers' health with health management, stop smoking and obesity and contributed to the prevention of cardio-cerebrovascular diseases and the protection of workers' health.

For medium and small enterprises in the industrial complex, 1 pilot regional occupational health center was opened to provide a program for the prevention of occupational diseases and health promotion at the level of large company. Professional manpower composed of industrial medicine, hygiene, nursing, physical training and nutrition experts provided comprehensive technical assistance and consulting for the workers of 321 workplaces and suggested a new model for industrial health service.

Program for Preventing Musculoskeletal Disorders

For the prevention of musculoskeletal disorders due to the increase in the number of repeated works as a result of automation, awkward posture, and handling of heavy materials, programs such as the examination of risk factors, 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 risk factors deemed to cause musculoskeletal disorders were assisted in the examination of risk factors and establishment of improvement plans (682 workplaces). On the other hand, those that performed an examination of risk factors were supported differently based on the evaluation of reliability of the examination results (157 workplaces).

Through specific support adjusted on the results of evaluation of the probability of workplaces recording incidences of musculoskeletal disorders (777 workplaces), the number of patients decreased by 85.6% from the previous year following the identification of dangerous elements and the administrative and engineering improvements.

Moreover, technical support was provided as appropriate for non-manufacturing industries (470 workplaces) in consideration of the increase of musculoskeletal disorders in non-manufacturing industries according to the diversification of industrial structure and the aging of workforce and as a result of the basis for self-regulated health management was established.

Ergonomics guidelines were made and distributed for the manufacture of other non-metallic substances, food manufacturing, fabric or fabric products, chemical products and electronics and machinery manufacturing according to their respective characteristics to strengthen the prevention of musculoskeletal disorders in vulnerable industries.

Campaigns and PR activities to instill the awareness of the labor and management for the prevention of musculoskeletal disorders (21 times) and technical seminars (4 times) were held. In addition, the ergonomics awareness checklist of risk factors to the musculoskeletal system was translated in 10 languages for migrant workers who are working in vulnerable industries and were provided through the operation of a website.

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

To meet the requirements for the development and distribution 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 Jan., 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.

Among the resolutions of the committee, those which must be observed without fail are recommended to the Minister of MOL for public announcement while the others are announced by the president of KOSHA as KOSHA Code to be utilized at workplaces.

Currently, 294 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 (1995~2007) 】

(Unit: case)

Total	General Safety	Machinery	Chemical	Electricity	Construction	Health Care	Hygiene	Medicine
294	7	83	81	39	33	11	18	22

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.

Financial Support to Improve 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; "financial subsidy for the improvement of working environment in harmful processes," a project for the manufacturing industry and other industries with less than 300 employees; and "providing loans for industrial accident prevention facilities," which offers financing for the purchase of safety and health facilities at long-term, low interests.

The program on "The Clean Workplace Program" subsidizes 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 KRW30 million in subsidies.

The program on the "financial subsidy for the improvement of working environment in harmful and hazardous processes" is designed to support the workplaces employing less than 300 workers (excluding manufacturing factories with less than 50 employees) with poor working conditions with deafening noise, dusts, harmful and hazardous chemical materials and the works that cause musculoskeletal disorders maximum KRW50 million gratis for the improvement of facilities to make a pleasant working environment.

The program on "providing loans for industrial accident prevention facilities" seeks to prevent industrial accidents and improve working environments by promoting investments in industrial accident prevention facilities.

【 Records of Projects by Years 】

(Unit: site, KRW100 million)

Category	2007	2006	2005	2004	2003
Clean workplaces program	9,847 (994)	9,508 (1,000)	10,428 (1,110)	5,236 (563)	3,266 (319)
Financial support for improving harmful processes	470 (91)	446 (67)	510 (77)	208 (25)	-
Loans	878 (940)	948 (881)	1,040 (800)	980 (763)	940 (627)

*Amount of subsidy enclosed in parenthesis

Test, Examination, Approval, and Certification

Technical 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. The management conducts a periodic self-evaluation of the safety and health management plan for continual improvement.

To promote such an 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 review of the initial status of the workplace, safety and health policy, planning, implementation, checking and correction, and audit by the management. However, the details of the application of each component and 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

Performance

In 2007, KOSHA evaluated the applications for certification of good safety and health management establishment and granted KOSHA 18001 certificates to 54 workplaces deemed to be above a certain level. As of the end of 2007, a total of 391 workplaces nationwide have been certified.

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 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 since Jan. 1, 1996.

A total of 820 workplaces have been subjected to the Process Safety Management (PSM) system including 173 in harmful and dangerous industries such as crude oil refinery business and 647 that process one or more of the 21 hazardous and harmful substances such as chlorine and phosgene beyond the prescribed quantities.

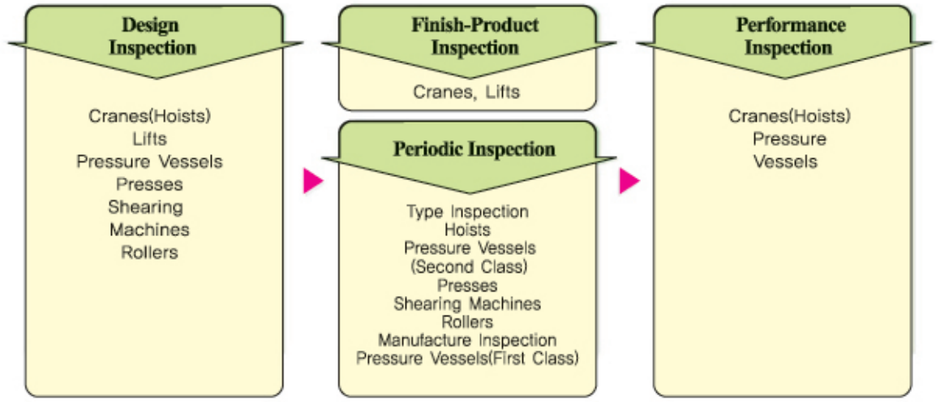
Quantitative Risk Management, and Technical Support for Risk-based Inspection

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).

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 Article 34 of the Industrial Safety and Health Act. Without undergoing this inspection, any dangerous machine and equipment cannot be manufactured, imported, transferred, lent or 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 in every 2 years during use. Thanks to the implementation of the inspection system, accidents due to dangerous machinery, equipment, and facilities continue to decrease. In addition, workers' lives are saved and the stoppage of production due to unexpected breakdown can also be prevented by the periodic inspection and maintenance system.

【 Kinds of Inspection 】



【 Types of Inspections Performed in the Last 5 Years 】

(Unit: case)

Inspection Type / Year	Total	Design Inspection	Finish-Product Inspection	Performance Inspection	Periodic Inspection
2007	107,817	12,675	27,127	15,527	52,488
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

【 Types of Machines Inspected in the Last 5 Years 】

(Unit: case)

Inspection Type / Year	Total	Cranes	Lifts	Pressure Vessels	Presses and Shearing Machines	Rollers
2007	107,817	54,096	7,634	45,266	766	55
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

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

Performance Test of Safety Devices and Personal Protective Equipment

The structure, material, and performance of safety devices and personal protective equipment used for dangerous machinery and equipment are tested. Only the products that are higher than a certain standard are certified. Also, the products being sold in the market are collected for testing to promote the distribution of safe products.

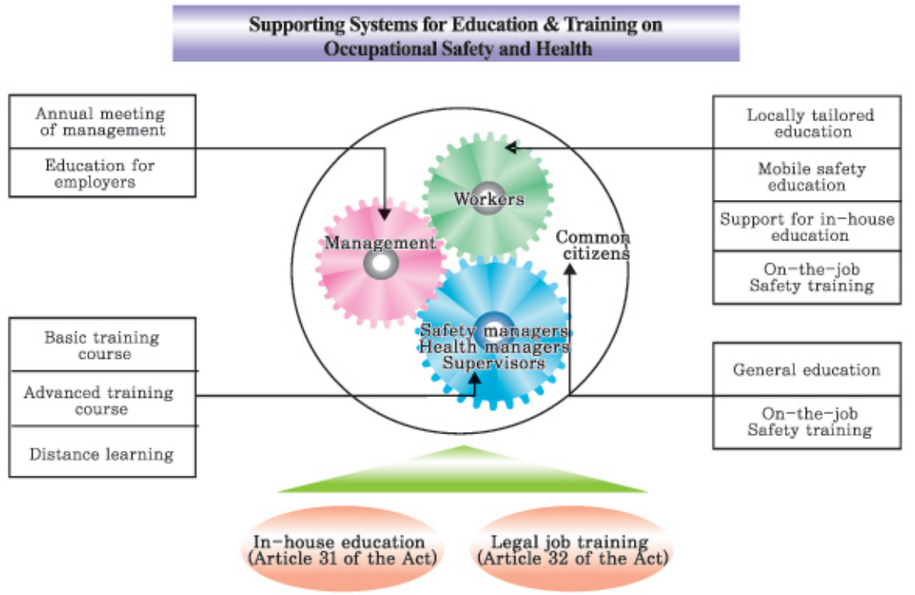
Safety Certification Mark ("S" Mark)

The "S" mark can be attached to the industrial machinery and equipment that are proved for safety and reliability in the stage of design and manufacturing to symbolize their safety and contribute to the prevention of industrial accidents by promoting the sale of safer products.

Education & Training for the 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, healthy and advanced 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.

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 Safety Culture 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 for Customers

Training Courses for the Management

The annual meeting of the managements of enterprises held 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 that suffer from 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.

(Unit: person)

Item	2007	2006	2005	2004	2003
Annual meeting of the management	3,080	3,362	2,139	2.036	1,911
Education for employer with less than 50 workers	22,406	16,849	14,826	16.462	20,894

Training Courses for Supervisors

KOSHA contributes to the reduction of accidents at workplaces by providing appropriate training courses developed for the real situations in the respective regions through an analysis of industrial structures and occurrence of accidents in the regions. Specifically, it has established 6 Regional Training and Information Centers nationwide since 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.

(Unit: person)

Item	2007	2006	2005	2004	2003
Locally tailored education	34,799	35,548	23,887	33,643	26,085
On-the-job training	14,193	8,375	-	-	-
Consulting services for safety and health training	31,686	5,936	-	-	-

Training Courses for Employees

The Training and Public Relation Teams at the 20 area offices provide mobile 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.

(Unit: person)

Item	2007	2006	2005	2004	2003
Mobile safety education	113,764	126,795	109,230	106,484	106,839
In-house education	126,426	80,605	81,610	99,863	104,941

Education for Those Who are Vulnerable to Industrial Accidents

With the increase in the number of migrant workers in workplaces, education on occupational safety is done during the classes for employment and a systematic and comprehensive support for safety education has been established to contribute to the reduction of industrial accidents in the areas densely populated by migrant workers and improve the human rights of migrant workers.

Also, safety education is being done for the students at vocational high schools, Korea University of Technology and Education and Korea Polytechnic Colleges to raise the safety awareness of future industrial manpower and contribute to the prevention of industrial accidents for new employees.

(Unit: person)

Item	2007	2006	2005	2004	2003
Safety education for migrant workers	105,581	74,213	26,427	14,030	21,615
Safety education for vocational schools	40,739	24,056	-	-	-

Safety Education through Experience

KOSHA provides safety education and training on construction safety to help employees recognize safe work at the sites by letting them experience the danger of fallen objects and falls. Such training through experience (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 the trainees.

(Unit: person)

Item	2007	2006	2005	2004	2003
Safety Education through Experience	38,129	32,083	31,780	36,700	35,713

In addition, trainees can find out the hazardous elements and the process of accidents using the computer-based virtual reality technology in the Virtual Safety Training Centers operated gratis by KOSHA. The centers are linked with the safety training through experience and are popular for the workers, common citizens, and students who use the centers.

Training Courses for Safety and Health Expert

As part of training for its specialist for industrial safety and health, 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.

(Unit: person)

Item		2007	2006	2005	2004	2003
Total		15,734	15,225	12,997	12,412	12,942
Basic training course		647	607	396	412	643
Advanced training course		8,032	7,612	7,473	7,931	7,820
Correspondence Education course	Mail	3,674	3,668	3,666	3,531	3,923
	Internet	3,381	3,338	1,462	538	556

Early Safety Education

Since safety consciousness begins with the education at home and the basis is formed at school education and completed by the education at workplaces, it is extremely essential to enhance early safety education among children and primary, middle, and high school students so that they can develop safety habits during their formative years.

As part of the its efforts to establish early safety education, KOSHA conducts safety education 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, KOSHA is operating model safety schools to prevent accidents in schools, enhance safety awareness, and develop the knowledge and attitude of students through school courses and safety activities. 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.

(Unit: person / school)

Item	2007	2006	2005	2004	2003
Training for safety instructors	2,072	1,949	1,691	1,698	1,700
Operation of designated model schools for safety training	32	64		64	

Safety Culture

To enhance safety awareness among employees and employers and to enable the national safety culture to take root, KOSHA implements much PR and campaign activities and safety culture movement through various media.

National Safety Culture Movement

Since the latter half of 1995, the government has led 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.

(Unit: site)

Item	2007	2006	2005	2004	2003
Safety Inspection on "Safety Checking Day."	2,707	1,684	345	454	556

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 of international safety equipment, working environment and firefighting equipment, essay & PR contests, and the operation of KOSHA's PR pavilion.

The participants in the events held during the Week of Occupational Safety and Health are expanded from the concerned persons in the area of safety and health to ordinary citizens, women's organizations, teachers, students and union representatives in order to form a national consensus on occupational safety and health. As a result, the week contributes to the establishment of safety culture in the whole society making safety the absolute value in life.

Strengthening Public Relations for National Industrial Accident Prevention

KOSHA is providing information in the form of safety and health materials. It conducts various activities on the prevention of industrial accidents via broadcast media such as TV, Radio, Internet, and cyber PR center at its website to strengthen safety awareness and spread it to the public.

KOSHA operates a PR center where various safety and health materials are displayed to educate industrial workers, students, and safety and health staff in an efficient manner.

Result of PR activities of KOSHA

Division	2007	2006	2005	2004	2003
Broadcasting	208 times	216 times	158 times	113 times	139 times
Mass media	312 times	248 times	144 times	88 times	87 times
Print media	6,086 times	312 times	4,430 times	6,096 times	7,451 times
Exhibits	10,012 persons	10,644 persons	14,624 persons	15,625 persons	14,512 persons

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 that manage accident-free movement by providing various necessary 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 at the jurisdiction regional or area office.

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 if there were no industrial accidents. 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 case studies of near misses are provided to workplaces.

Status of Participation in the Accident-free Movement and Successful Workplaces

Workplaces Participating in the Accident-Free Movement by Size and Year (As of end of Dec. 2007)

(Unit: place)

Item	Total	Less Than 50 Workers	50~99	100~299	300 or More Workers
2007	2,898	1,525	592	647	134
2006	2,623	1,297	676	549	101
2005	2,658	1,172	765	549	172
2004	2,570	1,294	569	536	171
Up to 2003	104,055	68,212	19,703	12,623	3,517
Total	114,804	73,500	22,305	14,904	4,095

【 Status of Target Achievement by Year (As of end of Dec. 2007) 】

(Unit: place)

Item	Total	50%	100%	Twice	Thrice	Four times	Five times	Six times or more
2007	1,500		596	281	186	80	116	241
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
Up to 2003	25,352	1,595	12,291	5,666	3,394	644	1,514	248
Total	30,587	1,595	14,666	6,691	4,105	765	2,006	759

Publication & Distribution of Educational Materials and Technical Information

Distribution of Educational Materials and Technical Information

KOSHA is developing the technical information, and is also providing a website service and brochures for 1.4 million companies nationwide. For large businesses, technical information focuses on workplace risk assessment and is categorized by industry fields and types. KOSHA is distributing the educational materials required in safety awareness to employers and works in small workplaces that are vulnerable to industrial accidents and cannot be supported directly by the agency. These materials include periodicals, books, pamphlets, posters, stickers, and videos that can be easily used by employers and employees. Multimedia materials for education purposes are also available online. For workplaces considering the technical materials may make a purchase through Internet shopping mall or membership service at cost.

Periodical Publications

10,000 copies of monthly magazine titled "Safety and Health" are distributed to various large and medium-sized workplaces employing more than 50 workers. The magazine consists of information on the techniques required for self-regulatory safety management, best practices, major industrial accidents, related regulations, and technical standards.

Website Operation

Since 2003, a separate website from KOSHA NET has been developed and maintained for distribution of technical information.
Workplaces nationwide as well as the general public are given technical know-how through a web magazine called WiSH (http://wish.kosha.net).

As of 2007, information on safety and health such as educational video materials and major industrial accident cases have been sent to more than 90,000 employers and safety and health staff as well as the general public via email biweekly.

Educational Materials for Small Workplaces Vulnerable to Industrial Accidents

Educational materials for workplaces with less than 50 workers
Published quarterly, "Occupational Safety and Health" targets 1,390,000 workplaces (occupying 97% of all industries) employing less than 50 workers but have yet to receive direct support from KOSHA. In addition, customized technical materials for 230,000 workplaces in five areas — manufacturing, construction, transportation warehousing & communication industries, agricultural and forestry are provided for free.

Educational materials for workplaces employing less than 5 workers
Among 1,020,000 workplaces (occupying 72% of all industries) with less than 5 workers and known vulnerability to accidents but have yet to receive direct support from KOSHA, 130,000 workplaces in manufacturing, construction, and other areas whose accident rate is higher than the average rate are regularly given 1 kind of pamphlet, 2 kinds of posters, and 4 kinds of stickers. KOSHA contributes to industrial accident prevention by eliminating areas lacking support when it comes to accident prevention.

Educational Materials on Industrial Accident Prevention for Migrant Workers

Since 2000, technical material has been provided for employers hiring migrant workers. To help prevent industrial accidents among 400,000 migrant workers in Korea, about 180,000 copies of materials are produced in 13 forms including textbooks, posters, stickers, video, etc., after being 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 employers of migrant workers.

Modular Instruction Materials

KOSHA has been developing and distributing modular instruction materials that will be used for all of its training courses since 2006. Modular instruction materials are produced in 2 types: module type and sheet type. In 2007 in particular, KOSHA developed a total of 300 materials (module type: 100; sheet type: 200) for 6 sectors including mechanical, electrical, petrochemical, health & hygiene, construction, and general safety. These materials are provided to those who complete a training course. Furthermore, KOSHA is operating the database system it has built. The system can be registered as a modular textbook in the website of the agency.

Standardized Educational program

Since 2006, KOSHA has been developing highly effective educational PPT for businesses and has been distributing it online.
KOSHA has developed and distributed through its website modular instruction materials for 6 major professional area to enable the safety staff of workplaces and KOSHA employees to use them conveniently for the safety and health education of workers. As of 2007, KOSHA developed more than 100 modular instruction materials and major accident cases in PPT form.

Materials Distributed After Payment

Operation of KOSHA's Self-regulated Safety Club (membership service)
KOSHA's self-regulatory safety club was established in May 2001. As of the end of 2007, club members numbered 1,314; among them, 374 (28.4%) are manufacturers and 940 (71.5%) are construction companies.

Every year, KOSHA recruits safety manager members from large construction companies and manufacturers and provides club members with monthly training materials (video materials, textbooks, instruction materials, posters, etc.) via postal mail. Materials featuring technical information including various types of instruction materials are also being provided through the website.

Operation of Internet Shopping Mall (for ordinary workplaces)
Internet shopping mall for safety & health materials has been up and running since 2002. For workplaces and ordinary people nationwide considering making a purchase on safety & health materials including textbooks, posters, exhibition panels, and videos may purchase it at affordable prices through the Internet shopping mall. In 2007 in particular, 296 kinds of such materials have been registered in the website for sale.

Multimedia Video Materials

Educational video
KOSHA develops and distributes about 40 educational videos annually. These educational videos are developed specifically for manufacturing and construction industries covering different tasks and accidents. These videos are sold on the Internet shopping mall, and the positive feedback from the trained employees increases its demands every year.

Educational Animation
Through its WiSH website, KOSHA develops and distributes about 26 educational animations annually to improve the educational effects. An animation titled "24 hours of the accident center (educational animation)" introduces fatal accident cases and accident prevention measures. Another animation dubbed "safety fairy tale" is a sentimental story about children safety. These animations are very popular as educational materials designed to enhance safety awareness.

Information Network for the Prevention of Industrial Accidents

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. Furthermore, the agency has initiated the MSDS service with the GHS system to secure fundamental security for the chemical materials manufactured and distributed in Korea.

In particular, KOSHANET provides information on 13 areas including legislation information related to safety and health, KOSHA-Codes, OPS, accident cases, MSDS/GHS 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, 2007: 287,521)

In 2007, with the construction of ERP (Enterprise Resource Planning) and EIP (Enterprise Information Portal) systems, KOSHA integrated the management DB, connected with the processing system, and combined the separately operated information system. In addition, the agency combined the internal and external systems such that information accumulated in the ERP system can be selected for supply through the website and KOSHANET services separately. 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.
Review of the data for the recognized industrial accidents, telephone calls and visiting surveys are conducted for a 10% sample in the case of work-related accidents. In the case of work-related illness, however, review of data, telephone calls, and visiting surveys are performed for all cases (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

As the only public research agency in Korea which conducts the research and development of professional technology and policies on safety & health for the prevention of industrial accidents for employees of workplaces, KOSHA makes researches on the policy and system of industrial safety & health, safety engineering area including machinery, electricity, petrochemical and construction, the area of working environment, occupational diseases and the toxicity of chemical materials. Through such activities, KOSHA contributes to the prevention of industrial accidents ad the development of the national economy by promoting the safety and health of employees and encouraging business owners to take active measures to prevent accidents.
In 2007 in particular, KOSHA focused on the researches that could meet the needs of customers and that could be used more practically for the policies for industrial accident prevention. As a result, the quality of R&D was upgraded and more practical research studies have been activated.

Research on Safety Management Policies

The role of the researches on the policies of industrial safety and health is to provide the basic data and information for the recommendation of effective policies for industrial safety and health and lay the groundwork for the continuous activities for accident prevention by setting a long and mid term goals for the researches on safety and health.
Therefore, in 2007, KOSHA conducted the 'research on the relationship between the participation of employees and the occurrence of industrial accidents', a 'survey of the level of safety awareness of the employers and employees', the 'research on the strategies to encourage the voluntary activities for safety and health by the labor and management', etc so that employees could participate voluntarily in the prevention of industrial accidents at workplaces. In addition, KOSHA provided the data for national policy by conducting researches on 'the realities of industrial accidents for the workers in special workplaces and strategic prevention measures', 'a comparative study on the operation of the organization for accident prevention in major advanced countries', 'a comparative study on the system of occupational safety and health system in Asian nations', 'occupational safety for the establishment of the strategies for national security', etc.
Furthermore, to achieve the goal of the prevention of industrial accidents by grasping their causes and provide basic data, researches were conducted on 'the investigation of the policy demand for the causes of industrial accidents and the analysis of the model of the causes of industrial accidents', 'examination of the compliance with the regulation of the system of the plan for the prevention of the danger', 'ways to strengthen the protection of the workers at contract companies with hazardous and dangerous works' and 'the directions of the accident prevention services in other industries'.
Besides, researches such as 'the development of the new index of safety and health policy to replace the rate of accidents' and 'ways for systematic analysis of the economic loss due to industrial accidents' were made for the accumulation of information on safety and health.

Research on Occupational Safety

The research on occupational safety deals with the specific sectors of machinery, electricity, construction and human engineering to develop the technologies for the prevention of industrial accidents and focus capabilities on practical R&D activities to reduce the major types of accidents including fall and overturning effectively. Especially, academic professionalism and universality are strengthened by joint researches with universities, related research institutes and companies, active international research exchanges and consultation with experts.
In addition, comprehensive preventive measures are presented for the types of serious accidents that have occurred recently by using the state-of-the-art scientific techniques through various experiments and simulations. Other areas for in-depth researches were: development of the technique for the evaluation of the danger of slipping and the development of a robot to

measure the degree of slipping, the development of a monitoring system for the movement of tower cranes by wind, proposal of automatic supply system to fundamentally prevent the accident of circular saws, comparison of the strength characteristics with the alteration of the wire rope sling by pressing and the eye splice incorporation method, development of a program for the identification and analysis of parameters for each element of electric shock, production of experimental human models for the interpretation of the electric shock of human body, development of cheap distribution model leakage indicator, the realities of safety awareness among construction workers, development of the device to confirm the wearing of safety helmet for the prevention of the accidents by fall from around 2.5m height and safe working clothes and the development of safe working stand exclusive for low height. In addition, KOSHA is making hard efforts for the propagation of safety culture and the technologies for the prevention of accidents in our society by holding research seminars for the themes of increasing social interest.

Research on the Prevention of Occupational Diseases

Research on occupational disease prevention seeks to develop the methods for the early diagnosis of occupational diseases and to provide the proper measures required for stakeholders. A wide variety of studies are conducted as ongoing projects in the field of occupational health (e.g., occupational medicine); these are expected to help in the judgment of new occupational diseases and improve the occupational disease management system. Other research activities are being conducted as well. Studies on the development of new bio-markers are performed on the basis of biochemistry and molecular biology; hazard evaluation studies (e.g., assessment of musculoskeletal disorder exposure) are also conducted.

Epidemiological Investigation of Occupational Diseases

The epidemiological investigation of occupational diseases involves identifying the relationship between the health problems of the workers and hazards in case an occupational disease occurred or if an occupational disease associated with a certain type of work or a hazardous factor is likely to occur.

The Ministry of Labor or The Korea Labor Welfare Corporation can request for an epidemiological investigation from KOSHA. The business owner can request for one upon obtaining the consent of the workers' representative. KOSHA can also select the companies or industries as targets of the investigation to prevent a certain occupational disease. This selection should be allowed based on the approval of the "epidemiological investigation review committee" at KOSHA. For the epidemiological investigation, KOSHA conducts an evaluation of the working environment and conditions to measure the extent of hazardous exposure. KOSHA also conducts clinical examinations to evaluate the status of the workers' health. The results of the investigation are used for the identification of the causes of occupational diseases and prevention of new occupational diseases through the systematic monitoring of the health of the workers in each industrial sector and process.

【 Number of diagnoses for the past four years 】

(unit: case)

Item	2007	2006	2005	2004
Total	92	86	80	109
Industry-wide or hazardous factors	5	9	6	10
Individual diseases	87	77	74	99

Quality Assurance Program of Special or Pneumoconiosis Health Examination Agencies

Since 1995, KOSHA has been operating regular quality assurance programs to verify the analysis, examination, and judgment capabilities of special or pneumoconiosis health examination agencies for the accurate and reliable health screening of workers. The Quality Assurance Program of KOSHA will guarantee the accuracy and validity of the special or health examination programs for workers.

	Proficiency Test on Biological Monitoring	Pneumoconiosis	Hearing Ability
Content	Evaluation of reliability of the analysis of items in blood and urine for biological monitoring	Enhancing the accuracy and reliability of pneumoconiosis examination for special and pneumoconiosis examination	Standardization and quality improvement of the methods and evaluation of the hearing ability test through special noise examination
Type	Special health examination	Special/Pneumoconiosis health examination	Special health examination
Frequency	Twice a year	Once a year for special examination Once a year for pneumoconiosis examination	Once a year
Area	Heavy metals in blood and metabolite of organic solvent in urine	Taking and reading chest X-ray, examination of vital signs/lung function, and judgment of lung function	Examination and judgment of hearing ability
Evaluation method	Appropriate if the result of the analysis of each item falls within the proper range	Education, evaluation via on-site inspection, inspection of data, and evaluation of reading ability	Education, evaluation via on-site inspection, and inspection of data

Management of Industrial Chemical Materials

The purpose is to contribute to the prevention of industrial accidents and occupational diseases caused by industrial chemical materials by providing safety and health information for the chemical materials that are currently being used in Korea, evaluating the hazard and danger of chemical materials, and supporting the certification and analysis of the toxicity of industrial chemical materials for the early establishment of the area of the research on danger.

Provision of Material Safety and Data Sheet (MSDS) DB and Information

Experts in their respective areas collect the latest information on the hazard and danger of chemical materials and make the Material Safety and Data Sheet (MSDS) and distribute them through the Internet. They also conduct the evaluation of the reliability of MSDS on the basis of the analysis of the components of the materials to facilitate the accurate preparation and exhibition of the MSDS at workplaces.

In addition, they are carrying out cyber consultation for the recognition and effective management of dangerous chemical materials at workplaces and dealing with information on chemical materials including the provision of the classification information on the hazard and danger pursuant to the GHS system and the MSDS Editing Program for compound materials.

【 Number of Usage of MSDS DB for the recent 5 Years 】

(Unit: case)

Item	2007	2006	2005	2004	2003
Number of usage	762,110	619,668	622,204	341,411	282,003

Researches on the Toxicity of Chemical Materials

To prevent workers' health problems due to careless handling of chemical materials, KOSHA is making researches on the toxicity mechanism and danger of the various chemical materials being used at workplaces and producing the data for the evaluation of the danger of chemical materials through GLP toxicity tests including tests for inhalation toxicity, genetic toxicity and skin toxicity to be used for the establishment of the criteria for the management of working environment, prediction of health problems and updating the MSDS.

Toxicity data is presented through the investigation of the danger of the existing chemical materials to protect the health of the workers who use new chemical materials. Other measures being taken to protect workers' health are the analysis of asbestos with an electron microscope for living organism samples and the samples that need precision analysis and support of education and training.

Evaluation of the Safety of Chemical Materials and Processes

KOSHA implements the tests and evaluation of the physical & chemical characteristics of chemical materials, fire & explosion, stability and reactivity and establish the measures to prevent chemical accidents through the identification of the causes of accidents and evaluation of danger based on the produced test data. In addition, KOSHA is contributing to the prevention of industrial accidents caused by chemical materials by providing workplaces with the results of the tests and evaluation of the materials requested to be tested according to the technical support for the workplaces so that they may be utilized for the self-regulated safety management of the workplaces.

International Cooperation

In 2007, KOSHA made effort to introduce advanced technologies in the area of occupational safety and health by reinforcing cooperative activities with 32 professional organizations for the prevention of industrial accidents in 14 nations as well as such international agencies as ILO, ISSA and WHO. It is also providing developing countries with the technologies for accident prevention to fulfill Korea's responsibilities as a member of OECD.

Enhancement of Cooperative Activities with Professional Institutes Working for the Prevention of Industrial Accidents and International Organization

KOSHA has implemented active and cooperative activities with professional institutes in advanced nations such as the National Institute for Occupational Safety and Health(NIOSH), Chemical Safety and Hazard Investigation Board(CSB) and National Safety Council(NSC), Health and Safety Laboratory (HSL) in U.K., TÜV in Germany, Berufsgenossenschaft (BG) and Physikalisch Technische Bundesanstatt(PTB) to improve its Technical capabilities to prevent industrial accidents and fulfilled its responsibility demanded by the international society as a member of Organization for Economic Cooperation and Development(OECD) by establishing cooperative relationship with such international organizations as International Labor Organization(ILO), International Standards Organization(ISO), OECD, European Agency for Safety and Health at Work(EU-OSHA) and Asia-Pacific Occupational Safety and Health Organization(APOSHO).

Technical Support for Asian Countries to Prevent Accidents

KOSHA has actively participated in cooperative activities related to occupational safety and health by reinforcing cooperation with the Asian countries and sharing with them techniques and experiences of Korea related to the prevention of industrial accidents. In 2007, a total of 33 personnel including the government officials in 15 Asian nations were invited to Korea for training. KOSHA also dispatched its experts to 5 nations to provide consulting to improve the technical level for the prevention of industrial accidents in those nations.

Operation of the Information Center

KOSHA is collecting, analyzing and providing the latest trends of occupational safety and health in foreign countries on a weekly and monthly basis for not only the people working in the industrial fields in Korea but those who need to have interest and understand the area of occupational safety and health.

The weekly trend of international industrial safety and health comprises of the latest news, data and event of overseas safety and health-related institutes and international organizations to provide the movement of advanced nations on safety and health through continuous accumulation of information. The Center of International Industrial Safety and Health collects, processes and propagates various kinds of international information. In addition, the center provides major international trend and information in the form if short stories in international safety and health, the latest safety and health data and international events on safety and health to give useful information for information users.

KOSHA held a workshop for the people dealing with international information in organizations under the umbrella of MOL to expand the distribution of international information related to the area of labor, share the know-how of the collection, translation and propagation of international information, and activate the distribution of international information through continuous cooperation among organizations for information exchange. It is believed that the workshop laid the groundwork for the cooperation among the organization for international affairs.

The participants in the workshop were the persons in charge of the works for international information at Ministry of Labor, Human Resources Development Service of Korea, Korea Workers' Compensation and Welfare Service, Korea Employment Promotion Agency for the Disabled, Korea Labor Education Institute, Korea Polytechnic Colleges, Korea University of Technology and Education, Human Resources Development Institute, Korea Research Institute for Vocational Education and Training, Korea Labor Institute, International Labor Cooperation Center and Korea Employment Information Service.

In Feb. 2006, KOSHA launched a network website (http://kr.osah.europa.eu) on occupational safety and health, cooperated with the European Agency for Safety and Health at Work (EU-OSHA), a world-renowned expert safety and health institute, to enable people in Korea to have easy access to overseas information on occupational safety and health.

EU-OSHA 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 homepage (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.

By holding XVIII World Congress on Safety and Health at Work, the annual conference of APOSHO which is a conference of the organizations of safety and health in Asia Pacific region, and the 46th ILO-CIS annual meeting at the same time, KOSHA is expecting that its cooperative activities with the world's network for industrial safety and health will be expanded further. As the annual conference of APOSHO is being held together with 'XVIII World Congress on Safety and Health at Work', the motto of the world Congress will be used commonly and various topics such as 'the new challenge and opportunity in industrial safety and health' and 'evaluation and management of risk assessment' will be presented. The APOSHO

Conference is being held in Korea for the second time in 10 years after the 14th Conference held in Korea in 1998. The size of the delegations is expected to be about 300 from 22 nations.

APOSHO was established in 1985 as an association of non-profit, non-governmental professional institutes related to occupational safety and health in the Asia-pacific region and 35 institutes in 26 nations are now participating in it. APOSHO contributed to the prevention of industrial accidents by discussing the experiences and knowledge on safety and health and sharing the related knowledge and information. The design and contents of APOSHO's homepage, which is a stage for the active exchange of information among members, have been revamped for the convenient usage of the users.

The superior cases of the activities in Korea for the prevention of musculoskeletal disorders have been registered in the 'Lighten the Load' Campaign that was conducted by EU-OSHA as an annual campaign in 2007 and the related materials were publicized through the website of EU-OSHA. As a result, the cooperation between the two agencies has been strengthened. Moreover, Korea's activities for occupational safety and health were known through the joint website as a focal point of EU-OSHA.

Furthermore, KOSHA has been operating APOSHO's homepage (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.

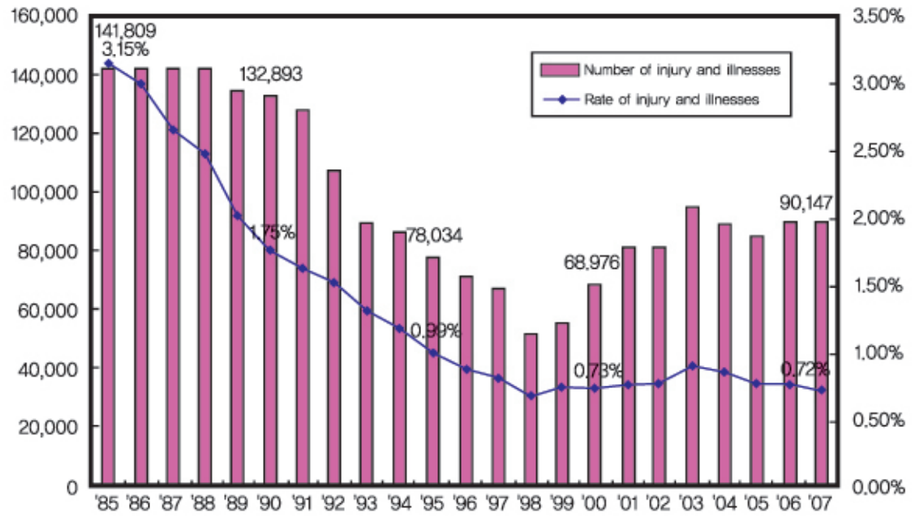
III. Statistics on Industrial Accidents in 2007

Summary

Out of the 12,528,879 employees working at the 1,429,885 workplaces covered by the Industrial Accident Compensation Insurance Act, casualties requiring medical care for a period of at least 4 days numbered 90,147 as of 2007. The rate of injury and illnesses stood at 0.72%

Compared to 2006, the number of injuries and illnesses by 7.2% and the number of casualties increased by 0.3%. Accordingly, the rate of injury and illnesses decreased by 0.05%p..

Due to a dramatic shift in the nation's economy under the control of IMF in 1998 and 1999, the number of injuries and illnesses and rates of injury and illnesses showed radical decrease and increase after showing a continuous decreasing trend in the early 1990s. The number of injuries and illnesses has increased considerably since 2001 as the coverage of the Industrial Accident Compensation Insurance Act was extended to include those with at least 1 employee in Jul. 2000.



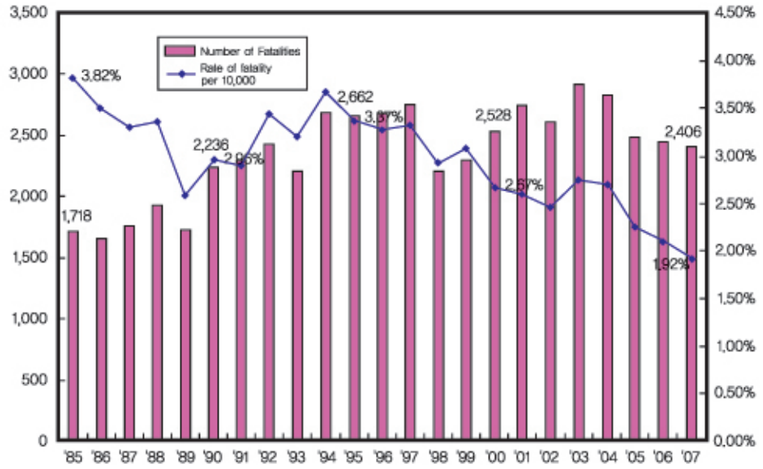
【 Table 1: Number of injuries and illnesses and Rate of injury and illnesses by Year 】

Status of Fatal Accidents

The number of fatalities (Fatal injuries and deaths from occupational diseases) stood at 2,406. Among them, 1,383 were due to number of fatal injuries and 1,023 were due to number of fatal illnesses

Rate of fatalities per 10,000 persons stood at 1.92, decreased 0.18p compared to 2.10 in 2006. The top three causes of fatal accidents include cerebrovascular/heart disease (515 fatalities), pneumoconiosis (442), and falls (418).

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

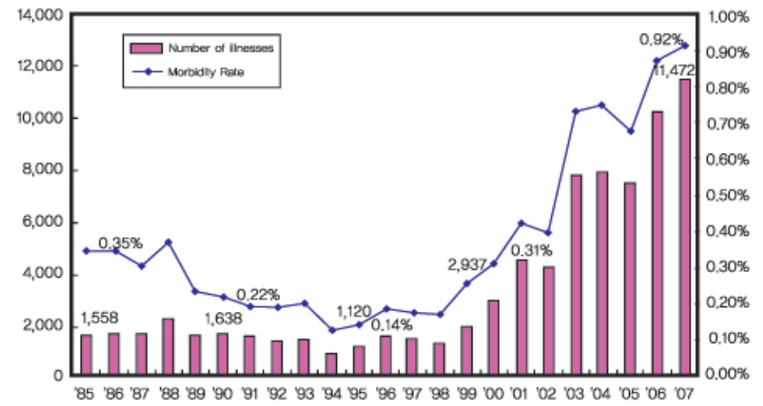


【 Table 2: Number of Fatalities and Rate of Fatality per 10,000 Persons by Year 】

Occupational Diseases

The number of fatal illnesses in 2007 numbered 11,472, an increase of 1,237 persons (12.1%) compared to the previous year's 10,235 persons.

In particular, typical occupational diseases(due to chemical, physical, or biological factors) accounted for 2,098 cases of the total in 2007, representing a decrease of 76 persons (3.5%) compared to the previous year's 2,174 persons. The number of patients suffering from work-related diseases stood at 9,374, representing an increase of 1,313 (16.3%) compared to the previous year's 8,061 persons.



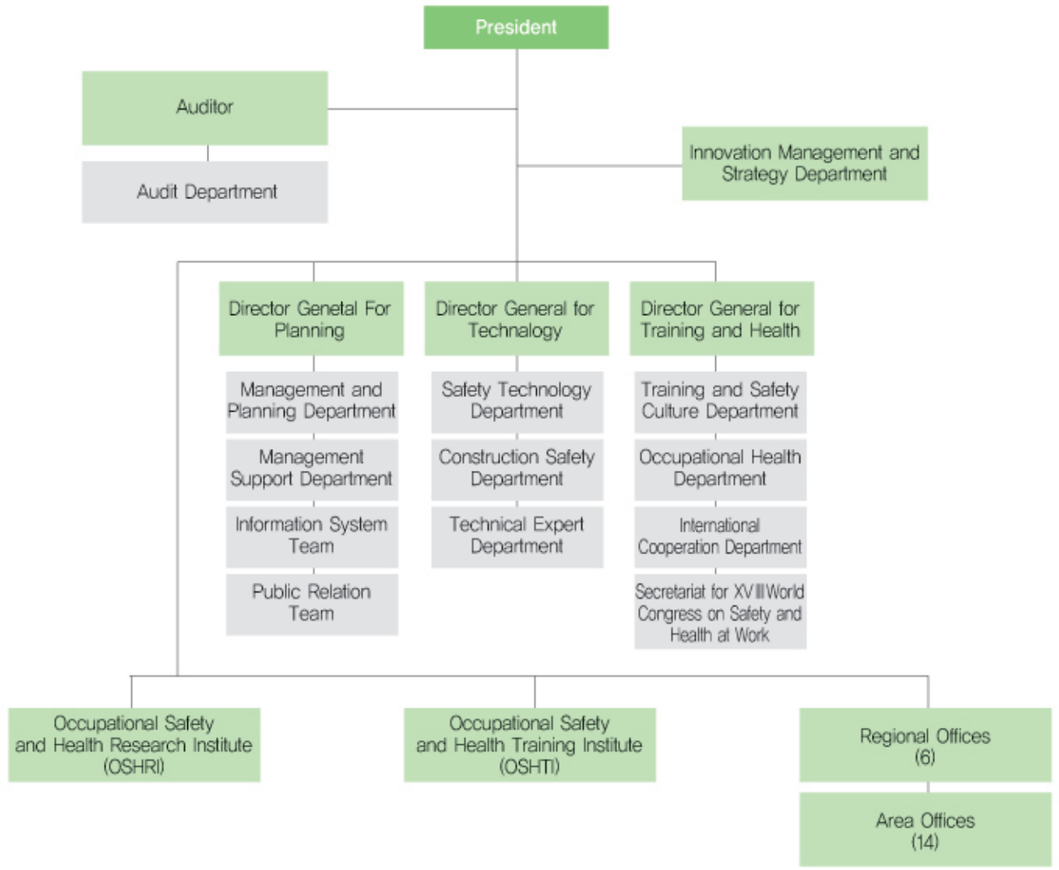
【 Table 3: Number of illnesses and Morbidity Rate by Year 】

※ Industrial Accidents Indicators

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

Ⅳ. Appendices

【 Organization Chart 】



【 Number of Staff 】

(unit: person)

Total	Headquarters	OSHRI	OSHTI	Regional Offices(6)	Area Offices(14)
1,376	184	158	64	428	542

[Contact Information]

Office	Phone	Location	Postal Code
KOSHA (Headquarters)	82-32-5100-500	34-4, Gineungdaehak-Gil,usan-dong, Bupyung-gu, Incheon, Korea	403-711
Occupational Safety and Health Research Institute(OSHRI)	82-32-5100-901	34-4, Gineungdaehak-Gil,usan-dong, Bupyung-gu, Incheon, Korea	403-711
Chemical Substances Safety and Health Center	82-42-869-0304	104-8, Munji-dong, Yuseong-gu, Daejeon, Korea	305-380
Occupational Safety and Health Training Institute(OSHTI)	82-32-5100-934	34-4, Gusan-dong, Bupyung-gu, Incheon, Korea	403-711
Seoul Regional Office	82-2-828-1600	14~15th floors, Yuhan Building, 49-6, Deabang-dong, Dongjak-gu Seoul, Korea	156-754
Gyeonggi-Incheon Regional Office	82-32-570-7200	491, Gajeong-dong, Seogu, Incheon, Korea	404-803
Busan Regional Office	82-51-520-0510	1486-67, Banyeo 1-dong, Haeundae-gu, Busan, Korea	612-815
Daegu Regional Office	82-53-609-0500	19~20th floors, Hosu Building, 50-3, Dongin-dong 2-ga, Jung-gu, Daegu, Korea	700-732
Gwangju Regional Office	82-62-949-8700	8~9th floors, Trade Hall Building, 1589-1, Usan-dong, Gwangsan-gu, Gwangju, Korea	506-712
Daejeon Regional Office	82-42-620-5600	449-7,Ojeong-dong, Daedeok-gu, Daejeon, Korea	306-819
Northern Seoul Area Office	82-2-3783-8300	7~8th floors, woori Building, 10 Bongnae-dong 1-ga, Seoul, Korea	100-161
Bucheon Center	82-32-680-6513	2nd floor, Samjin Building, 54-8, Nae-dong, Ojeong-gu, Bucheon, Gyeonggi-do, Korea	421-805
Southern Gyeonggi Area Office	82-31-259-7149	13th floor, Gyeonggi Medium & Small Business Center, 906-5, Yieui-dong, Yeongtong-gu, Suwon, Gyeonggi-do, Korea	443-766
Seongnam Center	82-31-785-3300	2nd floor, Sogok Hall, 106-2, Geumgok-dong, Bundang-gu, Seongnam, Gyeonggi-do, Korea	463-804
Northern Gyeonggi Area Office	82-31-841-4900	1st floor, Northern Gyeonggi Chamber of Commerce, 801-1, Singok-dong, Uijeongbu, Gyeonggi-do, Korea	480-070
Western Gyeonggi Area Office	82-31-4817-599	2nd floor, 729-2, Gojan-dong, Ansan, Gyeonggi-do, Korea	425-022
Gangwon Area Office	82-33-815-1004	2nd floor, Korea Teacher's Mutual Fund Building, 513, Onui-dong, Chuncheon, Gangwon-do, Korea	200-938
Gangneung Center	82-33-655-1860	15th floor, Gangneung City Hall, 1001, Hongje-dong, Gangneung, Gangwon-do, Korea	210-703
Eastern Gyeongnam Center	82-55-371-7500	6th floor, Grand Building, 483-14, Bukbu-dong, Yangsan, Gyeongsangnam-do, Korea	626-800
Ulsan Area Office	82-52-226-0510	2nd & 4th floors, KookminBank Building, 615-8, Dal-dong, Nam-gu, Ulsan, Korea	680-801
Eastern Gyeongbuk Area Office	82-54-271-2014	124-4, Daedo-dong, Nam-gu, Pohang, Gyeongsangbuk-do, Korea	790-823
Northern Gyeongbuk Area Office	82-54-478-8000	4~5th floors, Medium & Small Business Center, 92-30, Imsu-dong, Gumi, Gyeongsangbuk-do, Korea	730-350
Gyeongnam Area Office	82-55-269-0510	7-3, Yongho-dong, Changwon, Gyeongsangnam-do, Korea	641-727
Chungbuk Area Office	82-43-230-7111	3rd floor, KT Building, 1171, Gagyeong-dong, Heungdeok-gu, Choingju, Chuncheongbuk-do, Korea	361-800
Chungnam Area Office	82-41-570-3400	5th floor, Mirae City Building, 725, Buldang-dong, Cheonan, Chungcheongnam-do, Korea	330-230
Jeonbuk Area Office	82-63-240-8500	807-8, Inhu-dong 1-ga, Deokjin-gu, Jeonju, Korea	561-708
Eastern Jeonnam Area Office	82-61-689-4900	1285, Sunwon-dong, Yeosu, Jeollanam-do, Korea	555-801
Jeju Area Office	82-64-797-7500	2nd floor, Daeshin Securities Building, 251-1, Yeon-dong, Jeju, Jeju-do, Korea	690-813

[Offices]