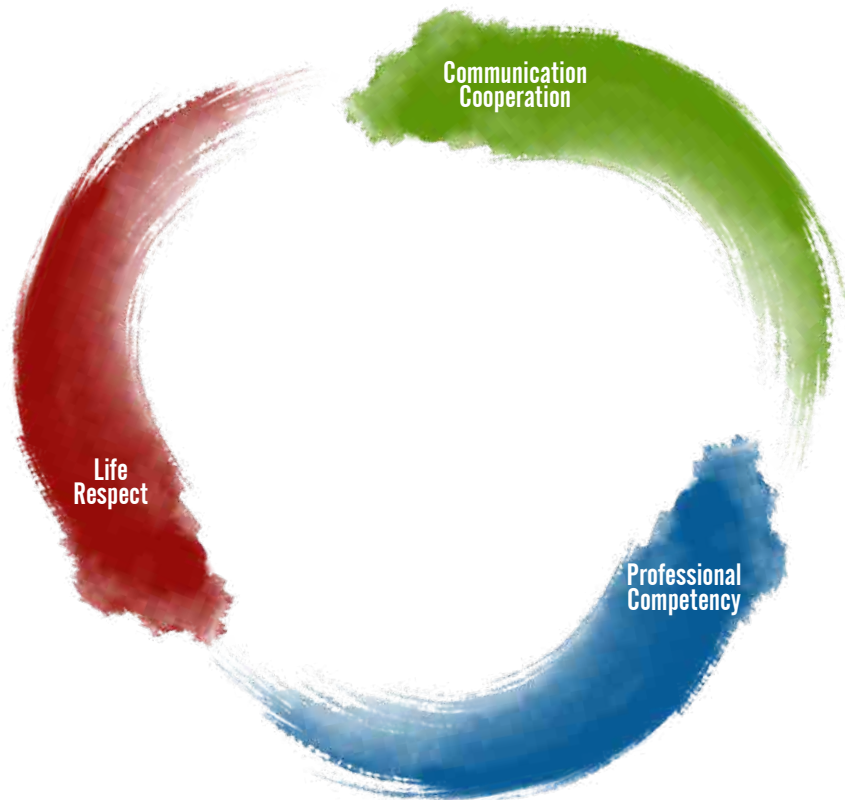


ANNUAL REPORT 2017

KOSHA





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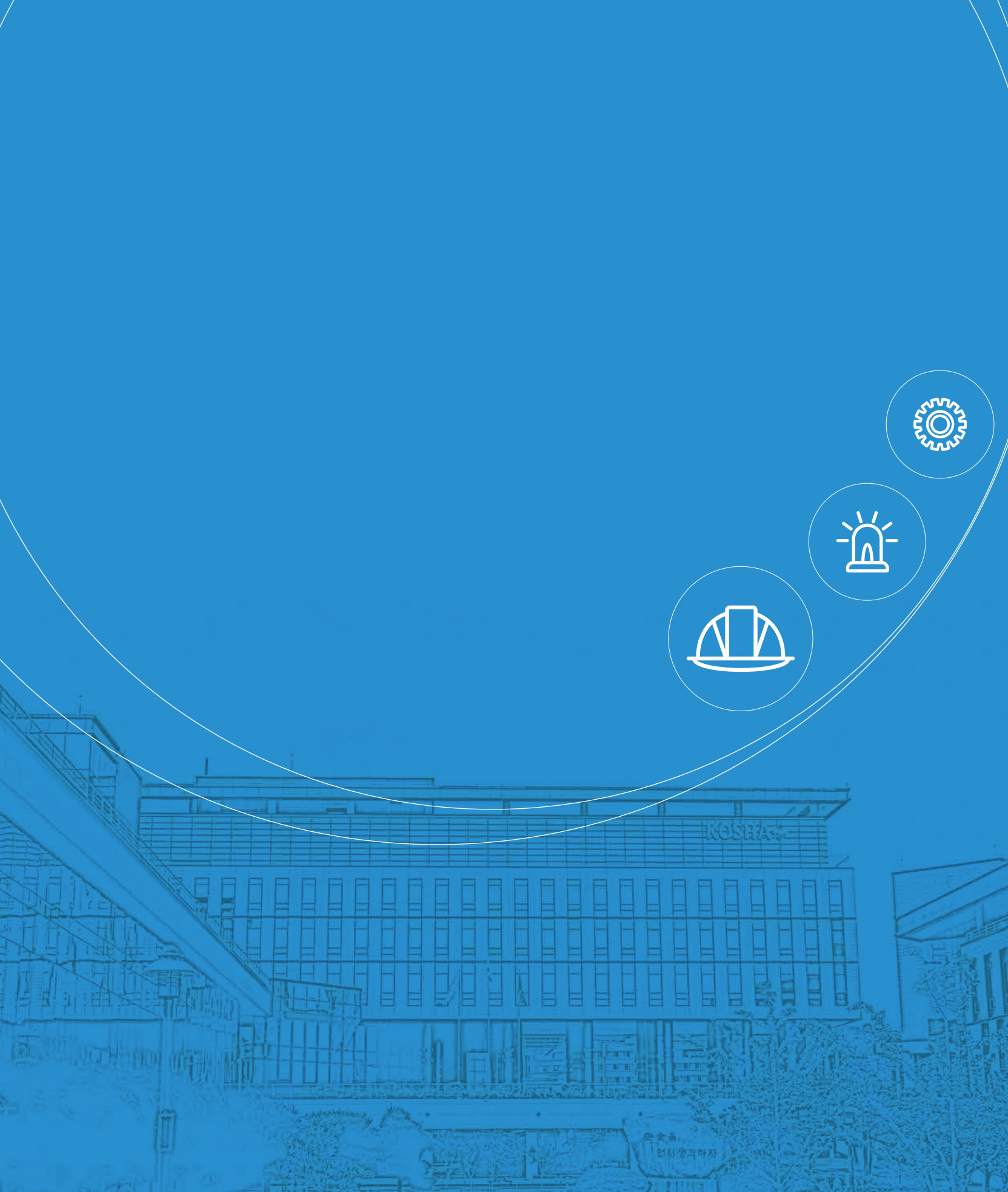
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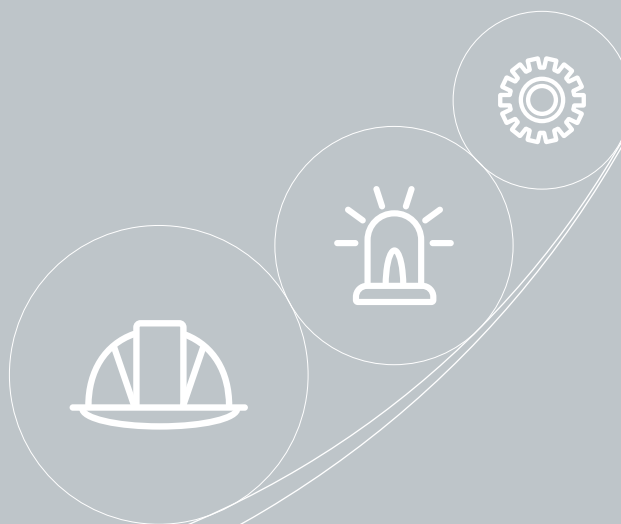
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MESSAGE FROM THE PRESIDENT

Determined to Eradicate Unfairness within Occupational Safety and Health





Dear fellow officers and employees in the field of occupational safety and health

I believe we all are fully aware of the fact that the environment surrounding occupational safety and health is now facing radical changes more than ever as the Industry 4.0 is coming of age around the world. Accordingly, new harmful and risk factors are gaining greater gravity, and it demands OSH officers to work even harder to practice preemptive responses by building a new safety and health management system.

Moreover, we are now required to establish new safety principles in order to resolve prolonged social issues, such as the imbalance of safety between principal contractors and subcontractors and conventional industrial accidents which never seem to slow down despite today's social environment that is fast-changing as well as highly advanced. Looking back, the year 2017 was very

much meaningful and rewarding to KOSHA.

In 2017, we celebrated the 30th anniversary of KOSHA, founded in 1987, when the term of occupational safety and health was still foreign to the entire nation, under the mission to prevent industrial accidents. For the past 30 years, KOSHA has always been making rigorous efforts to ensure that all workplaces are safe and clean for workers while placing the highest value upon respect of life. Consequently, public awareness for safety and health has been widely accepted throughout all workplaces, which led to notable accomplishments in prevention of industrial accidents as all accident-related indicators showed remarkable rates of reduction.

Despite all the past successes, however, the KOSHA will not be satisfied until taking another leap into the future where the life and health of workers is

thoroughly protected through scientific and innovative approaches based on vast experiences in industrial accident prevention accumulated for the past 30 years. At the same time, KOSHA is completely determined to eradicate any unfairness within occupational safety and health as we share and empathize with the global value of safety and health.

To show our sincere determination, KOSHA has prepared this yearbook describing all the projects and programs we have implemented as well as our performances to prevent industrial accidents for the past year. I sincerely hope this yearbook will make yet another contribution to constructing workplaces where all workers can work safely, free from any incidents.

Thank you.

Park, Doo Yong
President
KOSHA

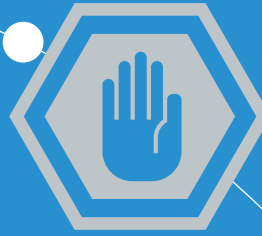


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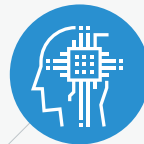


1

INTRODUCTION



**CORE
VALUE**



LIFE RESPECT



**COMMUNICATION &
COOPERATION**



**PROFESSIONAL
COMPETENCY**



MISSION

PROTECT WORKERS' LIVES AND HEALTH



VISION

HAPPY PARTNER OF WORKERS,
TOP LEADER IN OCCUPATIONAL ACCIDENT PREVENTION



PURPOSE OF FOUNDATION

CONTRIBUTE TO NATIONAL ECONOMIC DEVELOPMENT BY FACILITATING SAFE
AND HEALTHY WORKING ENVIRONMENT FOR WORKERS AND PROMOTING
EMPLOYERS TO MAKE EFFORTS FOR ACCIDENT PREVENTION



STRATEGIC TARGET

REACH 0.27‰ LEVEL OF FATALITY RATE PER 10,000 WORKERS BY 2022

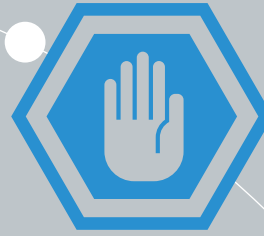




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2 STRATEGIES AND GOALS FOR OCCUPATIONAL ACCIDENT PREVENTION





STRATEGY I

INCREASE CAPABILITY TO REACT ON OSH FOCUSING ON DEMAND

GOALS

- Systemize accident prevention by area vulnerable to occupational accident
- extend the coverage of workers' health protection and spread infrastructure
- expand support small businesses to improve osh facility



STRATEGY II

STRENGTHEN SUPPORT TO BUILD SELF-REGULATORY OSH MANAGEMENT

GOALS

- Stimulate OSH prevention activities in workplaces with high level of risks led by mother company
- Foster capacity to manage OSH for major accident prevention





STRATEGY III

DISSEMINATE SAFETY AND HEALTH CULTURE

GOALS

- Enhance the awareness of the public on safety
- Reinforce cooperation platform on OSH



STRATEGY IV

EMPOWER ABILITY FOR FUTURE GROWTH

GOALS

- Support policy with effectiveness
- Escalate quality of life and build organizational culture which provides fair opportunity
- Implement innovation and realize social value

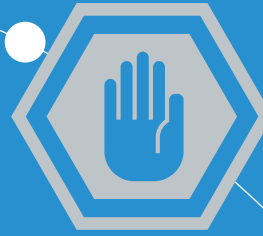




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3 KEY ACHIEVEMENTS IN 2017 AND MAJOR ACTIVITIES IN 2018



Accident Prevention for Manufacturing Industry

KEY ACHIEVEMENTS IN 2017

1 Building foundation for self-regulatory safety system with risk assessment and diversified promotions

- Supported for 62,703 workplaces in 2017 in order to encourage stabilization of self-regulatory OSH management by recognizing outstanding workplaces through consultation and on-site evaluation on risk assessments for small-scale businesses
- Expanded consulting services in order to widen the basis and promote awareness of risk assessment system; strengthened promotion through various media outlets; recognition of 6,233 outstanding workplaces in 2017 through improved usability for small-scale businesses by enhancing user convenience through development and distribution of mobile App on risk assessment techniques, virtual experiences and instruction for users

2 Reinforcement of responsibility and general consensus for safety and health between principal contractors and subcontractors

- Expanded assessment methods and benefits of cooperative programs to further promote voluntary participation by principal contractors and subcontractors in addition to strengthened promotion of the program above
- Improved policies and systems for

preventive programs in order to prevent serious accidents for subcontractors; and sharing of exemplary OSH cases and proliferation of cooperative efforts through leadership meetings of national key industries (automotive, steel and shipbuilding)

MAJOR ACTIVITIES IN 2018

1 Reinforcement of programs to prevent accidents and fatalities

- Impeccable implementation of evaluation and confirmation procedures concerning harmful risk prevention plans for major hazardous facilities and high-risk occupations in order to prevent serious accidents
- Elevate safety awareness through monitoring of accident situations and visit workplaces in order to improve effectiveness of accident prevention programs and technical supports for development of preventive measures for reoccurrences

2 Enhanced consumer-oriented voluntary participation

- Assistance for business owners to voluntarily utilize risk assessments as a means to manage risk factors at workplaces in addition to consulting services on risk assessment techniques interlocked with other businesses
- Supports to develop safe employ-

ment environment through comprehensive supports of financial assistance programs in conjunction with other systems, including self-regulatory activities

3 Reinforcement of responsibility for business owners concerning prevention of serious accidents

- Expansion of responsibilities for safety and health between principal contractors and subcontractors throughout entire workplaces and workers, and promotion of enhanced responsibilities for safety and health between principal contractors and subcontractors to respond to increasing outsourcing of risks
- Building a foundation for systems that can be employed by workplaces by reviewing safety in advance during the processes of design, operation and review when constructing a smart factory for the purpose of preemptive responses to new risk factors arising from the Industry 4.0





“
Fatality Rate in Industrial Accidents of Manufacturing
Industry Reduced by 8‰
”



Improving Workers' Health

Health Risk Free, Healthy Labor Force

KEY ACHIEVEMENTS IN 2017

1 Enhanced harmful substance management for decent working environment

- Improvement of working environment and exposure level through technical support for worksites (1,009 sites) with high level of exposure to harmful substances and implementation of technical support to strengthen awareness for toxicity of harmful substances at the vulnerable workplaces (38,775 sites)
- Development and distribution of core information on harmful chemicals (CHEM-i) that is easy to understand in order to elevate awareness of toxicity for workers handling chemicals (2,000 items in 2016 → 3,000 in 2017)
- Reduced number of suffocation accidents through tailored supports based on categorized risk classes at confined workplaces (33 workers in 2016 → 23 in 2017)
- * Technical support for 2,611 sites, training support for 8,363 workers and equipment support for 600 sites
- Support for safety assessment (1,171 sites) and consulting/training at small-scale worksites (4,845 sites) to verify compliance with safety guidelines throughout working processes in order to secure safety during disposal and removal of asbestos

2 Vitalization of health improvement programs for workers

- Secured vulnerable workers' rights to be healthy and expanded coverage of occupational health services by establishing 16 branch offices in the remote regions where workers feel difficult to visit occupational health facilities (5 branch offices in 2016 → 21 branch offices in 2017)
- Construction of DB of Enterprise Health Promotion (EHP) Index developed in 2016 in order to evaluate the level of health promotion activities by enterprises and motivate their voluntary participation in the activities in addition to development of measures to promote the use of the index
- * Construction of index DB on health management contracted facilities (7,500 facilities) and establishment of evaluation standards for EHP Index by sizes and business types of enterprises
- Support of campaign, consulting, training and psychiatric counseling to protect the health of emotional laborers

- Reduced number of patients with low back pain by 415 workers from 2016 through promotion of 3N Voluntary Exercise Campaign to prevent backaches (2,162 workers in 2016 → 1,747 in 2017)
- Establishment of evaluation standards for atypical jobs through development of BARAW1) (By Avoiding Repetitive Motions, Awkward Postures and Weights) guideline for nurses



1) A guideline to remove or mitigate 3 major causes to make jobs difficult and uncomfortable: Repetitive motions, awkward postures and heavy weights (forces)

Subject	Psychiatric counseling	Campaign	Consulting & Training
Accomplishments	46,858 cases	112 campaigns	1,000 sites, 107 workers



MAJOR ACTIVITIES IN 2018

1 Enhanced responses to new types of health risks

- Strengthened operation of surveillance and intervention systems for occupational diseases during the stages prior to onset of occupational diseases
- Consulting on health protection for emotional laborers (1,000 sites) and campaign to improve awareness of emotional labors
- Pilot program to operate a psychiatric consultation center on occupational traumas for workers at the sites where major labor incidents occurred (1 center)
- * Verbal abuse/physical violence by customers, serious occupational accidents (3 or more fatalities at the same time), workers' suicide incidents, sexual harassment/assault incidents

2 Enhanced management of harmful /hazardous chemicals

- Training and consultation to raise awareness of chemical toxicity for

workers at small-scale worksites (40,000 sites); support of consulting to improve workplaces by using the confirmation process for essential information on chemicals (CHEM-i)

- Production and distribution of videos and OPL to prevent suffocation incidents at confined workplaces; support of on-site technical training (2,500 sites) and support of training tailored to workplaces prone for frequent suffocation incidents

3 Vitalization of workers' health promotion activities

- Operation of workers' health centers (21 centers) and branch offices (21 branch offices) to provide health counseling and basic occupational health services to workers at the workplaces with less than 50 employees
- Consulting to evaluate the level of health programs of enterprises and to present improvement measures (8,000 sites); identification and distribution of exemplary cases of health promotion
- Consulting to workplaces (5,700

sites) yet to conduct investigation on harmful factors for musculoskeletal disorders; support for labor and management to improve awareness and participate in relevant activities

4 Strengthened implementation of basic occupational health system

- Expanded supports (\39.2 billion) for small-scale workplaces to execute working environment monitoring and special health examination system; consulting on follow-up managements at vulnerable workplaces
- Safety assessments on businesses engaging in disposal and removal of asbestos (1,200 businesses), and support of on-site monitoring to manage small-scale worksites conducting disposal and removal of asbestos (5,000 sites)
- * Elevated monitoring for compliance with the standards on disposal and removal of asbestos at schools during vacation and large-scale reconstruction sites

Construction Industry

KEY ACHIEVEMENTS IN 2017

1 Accident prevention programs by scales of construction sites

- Conducted evaluation on the harm and hazard prevention plans of 6 high-risk types of construction sites, including tunnel construction, and regular safety inspection (4,510 evaluations & 11,195 on-site inspections)
- Raised OSH awareness for business owners and workers through roving inspections of small-scale construction sites (of which budget is less than 12 billion KRW) by utilizing retirees with vast on-site experiences and safety-health experts (63,357 inspections)
- Promoted self-regulatory safety activities through partial financial supports for the costs required to improve facilities with risk factors in order to prevent fall accidents at small-scale construction sites worth less than 120 billion KRW (2,380 sites)
- Encouraged implementation of self-regulatory OSH management by reviewing and recognizing the level of risk assessments after receiving applications for nomination of outstanding risk-assessment workplaces (3,077 sites)

2 Competence enhancement of self-regulatory safety and health management by constructions businesses (worksites)

- Contributed to competency improvement of systematic safety and health management by distributing management system for safety and health of construction businesses (KOSHA 18001) to public project owners and general and special construction businesses (11 public project owners, and 101 general and special construction businesses)

MAJOR ACTIVITIES IN 2018

1 Prevention of major industrial accidents and intensive management of high-risk sites

- Reinforcement of on-site operability and execution of harm and hazardous prevention plans
- Expanded safety examination of temporary structures
 - Expanded safety examinations of temporary structures using safety examination program (KETS*) for shore and scaffold;
- * Kosha Examination of Temporary Structure
- Operation of accident investigation board to prevent reoccurrence of large-scale accidents
- Prompt response to social issues, in-depth analysis on causes and implementation of comprehensive preventive measures against accidents

- Development of realistic and effective measures for massive accidents under social scrutiny;
- Enhanced in-depth analysis on massive accidents causing social issues through evidence-based accident analysis

2 Intensive management of accident prevention at small-and-medium-sized construction sites vulnerable to industrial accidents

- Intensified patrol activities for safety and health
 - Heightened operation during peak seasons for major accidents (April thru November)
 - Intensive implementation of accident prevention for 5 major temporary structures* causing major incidents and types of construction incurring multiple accidents (factories and multiplex housing)
- * Work platform, safety fence, opening covers, ladder, and movable scaffolding
 - Issuance of 'warning notice for accident risks' and request for administrative actions upon failure of compliance
- Expansion of supports for clean workplaces at construction sites
 - Efforts to increase the budget from 20 billion to 23.8 billion KRW
 - Support Items: System scaffold, safe-

“ Preemptive Actions in Response to Fatalities and Occupational Accident in the Construction Industry ”



ty net, and ladder-type work platform

3 Construction of preventive safety management system for future construction industry

- Implementation of technical support system to respond to changing characteristics of future construction industry
- Remodeling construction, off-shore industries, urban revitalization projects, etc
- Exploration of research service and execution of pilot project for technical support for the purpose of developing safety and health technology and applicable regulations
- Improvement of policies concerning construction machinery and equipment and implementation of intensive technical support accommodat-

ing the scale of construction

- Employment of prevention system for major tower crane accidents at the sites subject to harm and hazardous prevention plans
- Application of comprehensive technical support for equipment safety targeting small-and-medium-sized construction sites
- Development of technical data regarding new harmful and hazardous factors
- Expanded delivery service of safety and health information (M-OPL*) directly transmitted to workers
- * Mobile-One Point Lesson

4 Establishment of self-regulatory safety and health system by participating parties

- Expansion of KOSHA 18001 certifi-

cation;

- Support for building safety and health management system encompassing both main offices and construction sites;
- Systematic response and distinct supplementation pursuant to introduction of ISO 45001;
- Encouragement for enhanced responsibility through improvement of construction safety index;
- Promotion of industrial accident prevention activities focusing on fatal accidents;
- Improvement of unreasonable practices on assignment of responsibility concerning prevention of occupational diseases;
- Efforts to amend applicable laws and regulations;

Service Industry

KEY ACHIEVEMENTS IN 2017

1 Reduced the accident rate down to 0.4%

- The accident rate in the service industry has been consistently downward for the past 7 years where it marked 0.27% in 2017 (as of the end of November), reduced by 30.8% (0.12%p) from 2011 (0.39%)
- The industry contributed to overall reduction of accident rates (0.54% → 0.40%) throughout the entire industries during the same span (2011 thru 2017)

2 Development and promotion of new projects suitable to characteristics of service businesses

- Promotion of accident prevention projects by targets designed to reduce fatalities and accidents of workers vulnerable to industrial accidents, including delivery workers riding two-wheel vehicles, port loading-and-unloading workers and high-altitude operation workers (communication cable installers, air-conditioner installers)
- Launching of promotion and persuasion activities to prevent industrial accidents in the service industry targeting the general public by reflecting the characteristics of service businesses prone to be sensitive to customers' demands with vast contact points with customers

- Exposure of safety labeling on beverage bottles, radio interviews and contribution of experts' columns to specialized journals

MAJOR ACTIVITIES IN 2018

1 Enhancement of extensive supports to business and occupation types prone to accidents

- **Support of basic safety to prevent industrial accidents in service industry** : Wide distribution of safety regulations and provision of safety and health materials by conducting basic safety examination on service businesses with less than 10 employees (160,000 sites)
- **Intensive technical support to prevent industrial accidents in service industry** : Implementation of intensive technical support at facilities/equipment prone to multiple incidents by utilizing non-profit organizations related to service businesses with high accessibility and acceptability to 50,000 worksites

2 Implementation of accident prevention activities accommodating characteristics of service industry

- **Safety support for the vulnerable with atypical jobs** : Preventive activities, such as supply of OSH materials, for workers difficult to take

technical training due to frequent relocations (commuting, platform, high-altitude operation, etc.)

- **OSH activities focused on headquarters and branch offices** : Enhanced support for the level of OSH by supporting the recognition of safe companionship program targeting headquarters/branch offices and principal contractors/subcontractors, evaluation of organizational culture concerning OSH at worksites, comprehensive analysis of principal contractors/subcontractors and comprehensive assessment of local governments

- **Systemized accident prevention network** : Construction of systematic and autonomous management system by organizing networks of headquarters and front-line agencies targeting service business-related institutions and enterprises

3 Strengthened private sector-led accident prevention activities

- **Basic OSH training for service businesses** : Implementation of training support through competent private educational institutions in order to provide quality OSH services for workers in the service fields where systematic OSH training is hardly available

“
Interaction and Cooperation to Protect the Vulnerable
and Expand OSH Network
”



Professional Engineering



“ Self-regulated Safety System to Prevent Major Industrial Accidents ”

KEY ACHIEVEMENTS IN 2017

1 Evaluation and confirmation of process safety management reports

- Contribution to prevention of major industrial accidents through comprehensive and scientific preventive activities, including factual surveys on 7 business types, such as crude oil refineries, and workplaces using 51 types of harmful substances/chemicals, i.e. chlorine and phosgene, over the permitted standards, development of OSH materials, assessments on process safety and risks, establishment of countermeasures, and maintenance of hazardous facility
- Evaluation and confirmation of process safety reports (2,661 reports)

2 Establishment and support of Safety and Health Management System (KOSHA 18001)

- Contribution to industrial accident prevention through supports for introduction and stabilization of safety and health management system at workplaces
- Number of workplaces certified for KOSHA 18001 since the system was implemented in 1999: 1,683 sites

ACCIDENT RATES AT CERTIFIED WORKPLACES COMPARED TO ENTIRE MANUFACTURING FACILITIES

[Unit: %]

Subject	'13	'14	'15	'16	'17
Accident rate at certified workplaces (A)	0.39	0.26	0.24	0.30	0.28
Accident rate at manufacturing facility (B)	0.78	0.72	0.65	0.62	0.56
Accident rate of certified workplaces compared to entire manufacturing facility (A/B)	50.0	36.1	36.9	48.4	50.0

MAJOR ACTIVITIES IN 2018

1 Evaluation and confirmation of process safety management reports

- Prevention of major industrial accidents through evaluation and confirmation of process safety management reports for business owners newly establishing, moving or modifying major structure of facilities with high risk of having major industrial accidents, including fire, explosion and leakage of toxic substances
- Expected volume (1,600 cases)

2 Alert system for chemical accidents

- Implementation of consulting services based on risk levels by collecting and analyzing risk signs of workplaces every 3 months and subsequently issuing danger alerts on 3 different levels (attention/beware/alert) in order to eradicate major chemical accidents prone to occur during repair,

maintenance and non-regular operations; consequently, it is to conduct safety management, including on-site inspection upon urgent issues, based on the results from the above

- Expected volume (2,000 cases)

3 Establishment and support of Safety and Health Management System (KOSHA 18001)

- Continuous improvement of Korean Safety and Health Management System (KOSHA 18001), which has successfully fulfilled the requirements under the Occupational Safety and Health Act, in order to keep pace with ever-changing global environment based on the risk assessment system
- Expected volume (1,700 sites)

Education and Media Distribution

People-Oriented Training and Media

KEY ACHIEVEMENTS IN 2017

1 Support for tailored training based on demands to improve safety awareness

- Training for Executive Management
- Operation of training courses focusing on improvement of safety management awareness targeting executive management, including business owners, plant managers and field supervisors, in order to secure safety of workplaces, the core element of corporate competitiveness
- Training for mid-level management
- Operation of training courses to strengthen executive competence on safety and health management for mid-level management personnel in order to ensure timely response to social issues and accidents, such as large-scale accidents
- Training for field workers
- In addition to various training courses, including group training and safety hands-on training, catered to characteristics of each region and workplace, contribution to enhancement of workers' safety awareness through operation of case-based training courses, such as accident cases and preventive measures, designed to reduce accidents for those who are vulnerable to industrial accidents, for example, foreign laborers, the elderly, female workers, and industrial reserve manpower

PERFORMANCES OF EDUCATIONAL PROJECTS IN 2017

Total: 632,263 persons

Subject	Executive Management	Mid-level Management	Field Workers	Group Training
No. of Trainees	113,993	61,820	450,096	6,354

* Training support for 248,028 workers vulnerable to industrial accidents (including elderly, female and foreign workers, and industrial reserve manpower)

2 Development and distribution of diverse safety and health training materials for all types of jobs, occupations or targets

- Development of safety and health media reflecting the characteristics of social issues, worksites and workers
- Development of media reflecting social issues and characteristics of accidents and worksites in order to support self-regulated safety and health management at small-and-medium-sized workplaces
- Development of safety and health media required for enhanced awareness and training to prevent industrial accidents targeting the general public and vulnerable workers, such as migrant, elderly and female workers
- 4-track distribution to strengthen communicability and usability of safety and health media
- Contribution to prevention of industrial accidents through distribution of safety and health media via various channels, including internet (official

websites, Apps), off-line distribution (agency, relevant authorities) and delivery service system to worksites

MAJOR ACTIVITIES IN 2018

1 Proliferation of safety-first culture through safety and health training tailored to characteristics of each group

- Heightened sense of responsibility by management level
- Promotion of investments and active participation in OSH activity by enhancing business owners' sense of responsibility and mindset for safety and health management through expanded training for the management level, including introduction of disciplinary training for CEOs and training support for personnel in charge of hazardous worksites
- Enhancement of executive competency for mid-level management
- Enhancement of executive compe-



tency concerning safety management by operating practical field training and tailored training courses necessary for mid-level management to fulfill safety and health management duties

※Promotion of stable establishment of the system through a training program for 10,000 personnel in charge of safety and health management in accordance with complete enforcement of 'Appointment System for Safety and Health Personnel' starting in 2018

- Improvement of workers' awareness to practice
- Contribution to enhancement of workers' awareness to practice safety by strengthening tailored training support for the vulnerable working group of elderly and foreign workers in addition to operation of various training courses, including group training by business types prone for frequent incidents reflecting the characteristics of each region and worksite, offering of regular courses for each industrial complex, hands-on/practical training

and on-site training

※Scheduled to expand the installation of hands-on training centers through installation of Jecheon Safety Training Center in October and additional expansion and update of hands-on safety training centers

2 Development of Contents Suitable to Future Environment and Enhancement of Communicability

- Development of safety and health contents tailored to each business type, occupation type and given subject for the purpose of education and promotion of industrial accident prevention
- Development of leaflet, poster, sticker, booklet and audiovisual materials required to execute the program after identifying customer demands
- Development of safety and health contents which are realistic yet carry strong educational impacts by utilizing information communication technology

- Conversion into and development of mobile contents regarding the topics highly effective for industrial accident prevention
- Development of VR-based contents (experiential and informative) to further improve engagement and power of information delivery
- Improvement of online/offline delivery system by strengthening on-site delivery and enhancement of promotion
- Operation of distribution network for safety and health media through various routes in order to support self-regulated safety management for small-and-medium-sized workplaces, including expansion of smart phone application and on-site delivery services

Safety Culture & Public Relations

KEY ACHIEVEMENTS IN 2017

1 Proliferation of effective safety culture through joint efforts by government agencies and relevant organizations

- Efforts to widely spread safety culture together with the Ministry of Public Administration and Security, e.g. K-Safety Expo
- Implementation of industrial accident prevention programs together with various organizations, including labor unions, broadcasting companies and occupational associations
- Carry out 65 public projects with the 56 organizations
- Promotion of industrial accident prevention programs to protect the vulnerable groups along with diverse organizations, including civil groups, media outlets and labor unions

2 Discovery and promotion of contents to further widen the social consensus on safety

- Intensive promotion of key messages by simplifying the core value of quarterly theme on safety
- Comprehensive campaign to protect the vulnerable workers (subcontracted workers, emotionally stressed laborers) by taking characteristics of each media outlet into consideration

※(1st quarter) Symbiotic cooperation

between principal contractors and subcontractors; (2nd quarter) Prevention of fall accidents in construction industry; (3rd quarter) Prevention of massive accidents at chemical factories; (4th quarter) Protection of emotional laborers

- Broadcasting of programs on safety through terrestrial TV stations to heighten pan-national awareness of safety
- Production and broadcasting of the program on safety, 'Safe Korea; Promise for Zero,' (A total of 7 times between June and December)
- Enhanced promotion of major policies and projects through collaboration between the Ministry of Employment and Labor (MOEL) and Departments of KOSHA
- Implementation of "Comprehensive Promotion of Vitalizing Risk Assessment" in conjunction with the Chemical Accident Prevention Division of MOEL and Occupational Safety Bureau of KOSHA
- Building public consensus for safety awareness through development and distribution of visual contents, such as web-comics, info-graphics, mobile newsletter and card news
- 8 episodes of 'Inject with Safety' through Naver (3.97 million views), 10 mobile newsletters, 7 types of info-graphics

3 Contribution to the proliferation of pan-national safety culture with the success of the 50th National OSH Week

- Offered a nation-wide festival of OSH through International OSH Exhibition, OSH seminar, presentation of exemplary cases and various cultural events
- Various events open to general public, including live radio broadcasting with audience, special lecture on safety, UCC contest, safety quiz competition for foreigners and OSH journal contest
- Promotion of self-regulatory industrial accident prevention activities at workplaces and proliferation of nationwide safety culture

MAJOR ACTIVITIES IN 2018

1 Enhanced activities of safety culture focusing on prevention

- Offering of instruments to measure the OSH level in order for each worksite to voluntarily diagnose and improve the safety culture level; and encouragement to continuously improve the level through self-diagnosis
- Promotion of strengthened OSH activities at worksites by discovery and distribution of exemplary cases through Safety and Health Leadership Meeting

Proliferation of Prevention-Oriented OSH Culture

2 Reinforcement of on-site operability through vitalization of OSH network and eradication of blind spots for industrial accident prevention

- Enhancement of responsiveness to current safety and health issues by joint-operation of target projects reflecting characteristics of accidents by regions
- Promotion of wide-spread safety culture through business community, labor community, media outlets and relevant organizations, and further procurement of OSH for the vulnerable groups, such as emotional laborers and elderly workers

3. Promotional strategy for industrial accident prevention policy and project

- Clear definition of targets for promo-

tion, e.g. field workers, employers and opinion leaders, followed by delivery of messages* tailored for each target

- * Employers : Responsible for safe management, Field Worker: Practice of safe behavior; Opinion Leader: Escalation of public opinion on the significance of safety
- Conversion of promotional strategy from conventional way focusing on newspaper ad and press release to aggressive way through role allocation
- Establishment of business plans for each project by responsible offices Strengthen promotion of major projects on industrial accident prevention which must contain promotion plans based on close communication from the very beginning stage

※ Building plans for "Comprehensive Promotion of Vitalizing Risk Assessment " in conjunction with the Chemical Accident Prevention Division of MOEL and Occupational Safety Bureau of KOSHA in 2017 → Comprehensive PR through broadcasting, living and online

4 Reinforcement of PR through SNS focusing on proliferation and communication

- Identification of customers' needs, including OSH officers, by newly establishing communication program with the general public and provision of real-time contents tailored to customers
- Expansion of potential recipients of mobile newsletter by utilizing the pool of OSH officers by regions and increased utilization of OSH information directly targeting customers



International Cooperation

“
Create New Chapter through
Expanded International Cooperation Network
”

KEY ACHIEVEMENTS IN 2017

1 MoU for technical cooperation with international OSH organizations

- Improvement of technology and enhancement of international competency of KOSHA by expanding cooperative organizations through execution of agreements on technical cooperation in addition to technical and information exchanges

※Agencies under agreements: 52 organizations in 28 countries

※Core elements of the agreements: Expert exchange programs, sharing of technical materials, joint research, physical exchanges (KOSHA's mobile safety and health training bus, educational equipment and apparatus, educational materials, etc.)

2 Supports to elevate the level of occupational safety and health in developing countries in the Asian region

- ILO Fellowship Program : Dispatch of KOSHA's experts to ILO and provision of technical advisory
- Dispatch of experts to Asia Pacific Regional Office of International Labor Organization (ILO) (2014~2017)
- On-site technical consultation, including dispatch of experts, to help elevating occupational safety and health standards in Vietnam, Mongolia, etc. (4 occasions)

- WHO Fellowship Program : Technical support to improve occupational health standards in the Asian Pacific nations

- Analytic theories and technical practice upon harmfulness to human bodies and atmospheric particles of asbestos and silica (5 persons)

* 5 government officials in charge of occupational health from 4 countries of Cambodia, Philippines, Vietnam and Mongolia

- International Cooperation : Support for competence enhancement of human resources in developing countries subject to intensive assistance

- Policy debate on OSH by 8 ASEAN nations; Invitational workshop upon establishment of OSH policies and systems (7 officials from Myanmar, 7 from Cambodia); Joint-research on assessment of exposure to harmful chemicals (Vietnam, Indonesia, Philippines)

- Support of mobile measuring device (Cambodia) and OSH media (Myanmar)

3 Information exchange on occupational safety and health in Korea and overseas

- Operation of 'International OSH Solution' in order to assertively respond to requests for a variety of information in other countries from consumers, such as Korean worksites and OSH personnel

- Operation of official website in English; Publication and international operation of information on OSH overseas

(2017: Responses were made to 73 requests, including inquiry for investigation of systems concerning preventive activities against industrial accidents)

4 Global dissemination of preventive culture through network

- International exchange and cooperation as an organization representing the chair organization for a Culture of Prevention Section and vice-chair institution for the Special Commission on Prevention of International Social Security Association (ISSA)
- Participation in the 21st World Congress on Safety and Health at Work; Operation of the board of directors' meeting for the Section for a Culture of Prevention under ISSA; Host of Symposium on preventive culture
- Attended the APEC International Conference on Improvement of preventive culture; Attended G20 International Meeting on Occupational Safety and Health Network
- Hosted a symposium to spread the preventive culture and Seoul Statement along with International Congress on Occupational Health (ICOH)



MAJOR ACTIVITIES IN 2018

1 Agreements and technical cooperation with OSH organizations in advanced nations

- Exchange of techniques and information on accident prevention through execution of technical cooperation agreements with OSH organizations in advanced nations, such as the U.S., Germany and Japan
- Sustainable agreements with 52 professional institutions in 28 countries, including the National Institute of Occupational Safety and Health in the U.S.
- ※By Regions: Europe (28 institutions in 13 nations), Asia-Pacific (20 institutions in 13 nations), America (4 institutions in 2 nations)
- ※By Sectors: Technical exchange (15 institutions), technical supports for developing countries (13 institutions), mutual certification (24 institutions)
- Reinforcement of technical support agreements with international organizations and institutions specialized in accident prevention
- Enhanced technical cooperation with institutions under agreements; Strengthened responses to new harmful hazards and emergency disasters/accidents

2 Expansion of cooperative programs for mutual growth of OSH with developing countries

- Enhanced cooperative system with developing countries in the Asia-Pacific region to help elevating the level of OSH
- Technical supports for accident prevention accommodating the industrial environments of developing countries under the consideration of extent of industrialization, capability to adopt and progressive stage of recipient countries
- Implementation of joint research/invitational workshop; Dispatch of agency's experts to ILO (Feb. 2017 thru Dec. 2018)
- Widen exchange and cooperation on OSH with emerging economic nations such as China

3 OSH information and knowledge exchange in Korea and overseas

- Collection and distribution of latest OSH information around the world, such as good practices of accident prevention
- Discovery of policies/strategies/trends of OSH in overseas as well as good practices of accident preven-

tion by nations

- Prompt provision of information and materials by running a customer-oriented system, 'International OSH Solution'

4 Implementation and dissemination of preventive culture in Korea and overseas through cooperation with global network

- Joint cooperative projects with international organizations to spread preventive culture
- Enhanced cooperation with Special Commission on Prevention and other sub-committees under ISSA
- Implementation and dissemination of Seoul Statement through cooperation with ICOH
- Contribution to accident prevention through development of preventive culture index to be universally used throughout the global community
- Conducting co-research to develop Prevention Culture Index (PCI) with German Social Accident Insurance (DGUV) (2018-2020)

Occupational Safety and Health Research

KEY ACHIEVEMENTS IN 2017

1 Researches responding to government policies and mega-trends, including the 4th 5-year research project on prevention of industrial accidents

- A total of 79 research projects conducted by researchers in 2017
- Researches on reorganization of laws-regulations and systems to support government in establishing policies (22 projects), researches to resolve current social issues (7 projects), research for on-site application (12 projects), research on responses to changes in future environment (4 projects)

Subject	Total	2012	2013	2014	2015	2016	2017
Total	466	82	79	70	76	80	79
Policies & Systems	129	21	30	16	24	20	18
Occupational Safety	75	20	12	13	9	10	11
Occupational Health	79	12	13	12	13	15	14
Working Environment	72	9	9	12	13	15	14
Chemicals	111	20	15	17	17	20	22

2 Enhanced internal-external flowback of research outcome and improvement of performance

- Improved performance of "Application Rate to Improve Policy/System" through reinforcement of policies and practical research
- 36 projects (45.6%) out of 79 research projects were applied to improve the policies and systems in 2017

※ Application Rate for Policy/System Improvement: 18.3% in 2012 → 45.6% in 2017

- Improved achievements from the "Number of papers published in SCI-level journals" through efforts to elevate the level of research papers on occupational safety and health

※ Number of published SCI-level journals: 10 journals in

2014 → 25 journals in 2017

- Information exchanges concerning important and current issues on OSH amongst government, labors, management, the academic community and private sectors
- Hosted the 28th Forum on Future OSH Activities to be changed by Internet of Things (IoT)

3 Grown worldwide recognition on SH@W, the international academic journal of OSHRI

- Sustained enlisting of Web of Science, a database of academic journals, at the ESCI (Emerging Sources Citation Index) based on improvement of world-wide submission and citation rate of papers through reinforcement and promotion of Korean academic journals

Year	Submission Rate				Citation Rate	
	No. of journals submitted	No. of journals published	Rejection rate	Growth rate of journals submitted	No. of citations	Growth rate of citations
2014	153	49	68%	283%	170	130%
2015	282	51	72%	84%	281	65%
2016	358	56	84%	27%	364	30%
2017	416	60	77%	16%	490	35%

※ Source: EISEVIER Online System for Paper Submission / No. of SCOPUS Citations

4 Qualitative-quantitative improvement of OSH information on chemicals and modification of statutory management level

- Update of Material Safety Data Sheet (MSDS) on chemicals information and assessment of reliability
- Application of latest MSDS information, implementation of reliability assessment on distribution MSDS

※ (Accumulated) Number of MSDS information supplied: 19,796 types

“
A Leading Occupational Safety and Health Research
Institution for Industrial Accident Prevention
”



- Modification of management level for harmful substances under the Occupational Safety and Health Act
- Adjustment of statutory management level for chemicals in accordance with scientific grounds and systematic criteria
- ※ Addition of harmful substances subject to management (4 types), addition of materials for special management (20 types)

5 Establishment and distribution of guidelines on prevention of health hazards caused by nano-materials

- Production and distribution of "Guideline on Health Protection for Workers Handling Manufactured Nano-Materials"
- Establishment of OSH technical guidelines, including "Technical Guideline on Assessment of Exposure to Aerial Manufactured Nano-Materials" and "Technical Guideline on Recommended Exposure Standards for Carbon Nano-Tube and Carbon Nano-Fiber"

6 Enhanced reliability of assessment system on harmfulness-risk of chemicals

- Sustained certification of Good Laboratory Practice (GLP)
- Acquisition of GLP certification in the field of acute, sub-acute and subchronic inhalation toxicology tests (September, 2017; the Ministry of Environment)
- Sustained recognition from the Korea Laboratory Accreditation Scheme (KOLAS) upon 19 test items, including the field of fire-explosion

7 Identification of harmfulness of toxicity-unconfirmed chemicals and provision of toxicity information

- Execution of acute, subacute, subchronic and carcinogenic inhalation toxicology tests in order to identify toxicity of toxicity-unconfirmed chemicals (20 tests on 7 types of toxicity)
- Response to social issues through identification of health hazard of PHMG-HCL, sterilizer for humidifier

※ Results from inhalation toxicology tests: Posted at the official website of KOSHA on MSDS information (<http://msds.kosha.or.kr>)

8 Provision of multilateral statistical-analytic data on industrial accidents

- Supports for new establishment of "Comprehensive Management System* on Industrial Accidents for Principal Contractors-Subcontractors"
- Provision of outcomes from comprehensive statistical data (2 types: investigation materials and official statistical data) for principal contractors and subcontractors in addition to in-depth interview with OSH officers at 138 work-sites to be utilized as basic materials to establish policies
 - * The number of industrial accidents suffered by workers of subcontractors was included in the number of industrial accidents experienced by principal contractors
- Successful execution of the 5th Korean Working Conditions Survey and performance of comparative-analytic researches on international working conditions
- Implementation of working environment inspections targeting 50,000 households and 15-year-old or older employees nationwide (May, 2017 thru November, 2017)
- Research to publish the international report comparing the outcomes from the 5th European Working Conditions Survey (2016) and the 4th Korean Working Conditions

Survey (2014) in conjunction with ILO and Eurofound

9 Performance of epidemiologic investigation and improvement of competency specialized in quality assurance by occupational health service institutions

- Execution of epidemiologic investigation concerning correlation between workers' diseases and exposure to harmful factors at workplaces
- Strengthened preventive function through enhanced preventive epidemiologic investigation (3 investigations)
- Implementation of quality assurance activities throughout special and pneumoconiosis health examination agencies, working environment inspection institutions and asbestos investigation bodies (7 times)

10 Improved on-site applicability through commercialization of research outcome from industrial accident prevention

- Development of 3 types* of on-site applicable manuals and reference sample of 'urinal nickel' for quality assurance; publication of reports on commercialization of research (2 reports) by discovering cases of industrialization and commercialization
 - * Working environment management of LCD manufacturers ① Development of programs for healthy operation at closed space ② Supervision of investigation on musculo-skeletal harmful factors ③ Manuals



- Patent registration of 'Meat-Bone Sawing Machine Equipped with Safety Plunger' (Oct. 2017); Registration of utility model for 'Meat-Bone Sawing Machine Equipped with Safety Work Table' (22nd Sep.)

MAJOR ACTIVITIES IN 2018

1 Performance and enhancement of systematic research based on agendas for mid-to-long term research

- Execution of base research to reflect the paradigm changes within industrial accident prevention activities by the government
- Performance of researches to support paradigm changes within industrial accident prevention efforts by the new administration, including the issue of principal agent of OSH management for the vulnerable and principal contractors-subcontractors as well as prevention of fatality by overwork and protection of mental health
- Presentation of comprehensive direction for future researches by identifying agendas for mid-to-long term researches on OSH (KORA*) in order to prepare for Industry 4.0 and mega-trends

* KOSHA OSHRI Research Agenda

2 Response to social issues and conduct of field-oriented research

- Factual survey on health management in electronics and service industries and procurement of protective measures for workers
- Research on health management measures for principal contractors-subcontractors and workers in special types of employment
- Investigation on exposures of sanitation workers to harmful factors and OSH management conditions for postmen and development of management models

3 Construction of research system for identification of root causes for accidents and cases of accidents

- Development of experiment-analysis-based research system to identify causes for industrial accidents and conduct in-depth studies
- Procurement of accident investigation and research system to complete scientific cause analysis and present reasonable solutions to severe industrial accidents based on empirical reasoning

- Analysis of social-economic-systematic causes and development of countermeasures to serious industrial accidents (i.e. tower crane accident)

4 Enhanced group epidemiologic investigation and monitoring system by using big data

- Performance of epidemiologic investigation through big data-linked analysis, including insurance records from the National Health Insurance Corporation, cancer registration records, special medical examination by KOSHA and employment insurance DB
- Identification of groups vulnerable to occupational diseases and risk factors and utilization of the above to group epidemiologic investigation at workplaces
- A total of 5 scheduled investigations, including preventive epidemiologic one in 2017, mid-to-long term epidemiologic investigation and factual survey
- Operation of monitoring system for nationwide occupational toxic diseases in order to conduct emergency responses and prompt countermeasures to methanol poison incidents and acute chemical toxic diseases

5 Improvement of information delivery system for chemicals and advancement of management system

- Building foundation of management system for distributed chemical products and support for stabilization of MSDS closed information screening system
- Research to build foundation for management of industrial chemical product information in Korea and procurement of workers' rights to know by establishing detailed execution measures for MSDS closed information screening procedures to be institutionalized
- Researches to present reasonable statutory management measures for harmful substances
- Eradication of blind spots for chemicals through flexible management of harmful substances subject to management based on harmfulness

6 Operation of consumer-oriented chemicals toxicity tests and information system

- Execution of genetic toxicity as a GLP-based certification authority
- Designation of candidate materials for GLP test focusing on new chemicals related to electronics industry, such as semiconductor
- Improved reliability of harmfulness-risk investigations for



new chemicals

- Forecast of toxicity of new chemicals' toxicity based on the advancements of new future technologies

7 Enhancement of on-site functionality of physical risk test-assessment on chemicals

- Identification of fundamental causes for chemical accident and production of outcomes from physical risk test-assessment with enhanced on-site applicability for the purpose of preventing similar accidents
- 100 physical risk tests and 4 risk assessment reports

8 Identification of harmfulness concerning inhalation toxicity of chemicals and production-provision of information

- Research to select test materials capable of maximizing preventive effects for workers' health hazard and determination of their priority
- Execution of acute and carcinogenic inhalation toxicology tests and researches by using laboratory animals for the purpose of evaluating impacts from respiratory exposure by workers handling chemicals of which toxicity is yet to be determined
- ※ Performance of inhalation toxicology test on BAC (Benzalkonium Chloride), ingredient of sterilizer for humidifier
- Provision of findings from researches and GLP tests for

establishment-amendment of MSDS, worksites and relevant authorities

9 Implementation of the 9th Survey on OSH Trends and enhancement of monitoring function on social changes

- Implementation of the 9th survey on OSH trends (targeting 5,000 workplaces nationwide every 3 years)
- Monitoring of OSH conditions by worksites and technical changes in order to assist exploration and establishment of OSH policies and mid-to-long term policies
- Timely provision of basic statistical data for establishment of preventive policy against industrial accidents and improvement of project execution practice according to changes within the systems
- Timely provision of scientific statistical data on industrial accidents in order to establish a foundation to produce statistics on reports (business interruptions) of industrial accident investigation, pursue analysis projects and support industrial accident prevention projects
- Formation of basis to calculate comprehensive statistics on industrial accidents of principal contractors-subcontractors and improvement of statistics calculation system to respond to increasing industrial accidents due to expanded scope of recognition for commutes as industrial accident

Inhalation Toxicity Research Center

GLP (Good Laboratory Practice) Certified Institution

KEY ACHIEVEMENTS IN 2017

1 An institution specialized in inhalation toxicity research on chemicals

- Study on acute, subacute, subchronic, chronic and oncogenic inhalation toxicity using lab animals
- Equipped with chambers for inhalation toxicity test (14 sets, 60 units) and aerosol (vapor) generator
- Operation of automated toxicity test facility and database management system

(Inhalation toxicity test control program, toxicity test computer system program, etc.)

2 Research institution conducting assessment on long-term low-concentration exposure on workers

- Presence of carcinogenicity, lethal concentration (LC50), target organ, no observable adverse effect level (NOAEL)
- Identification of Dose-Response relation with exposure to chemicals using lab animals
- Production of basic data to establish exposure standards for the purpose of working environment management



Occupational Safety and Health Training

KEY ACHIEVEMENTS IN 2017

1 Collective Training (83 courses for 12,735 trainees)

(Unit : courses)

Total	Job Training	Advancement Training	Professional Training	Specific Training	Collaboration Process
83	8	7	58	8	2

- Operation of training courses with government policy and OSH issues fully reflected
- Development and operation of explicit work processes for safety and health management workers pursuant to expansion of subjects to statutory training (79 courses for 2,629 workers)
- Additional courses for training on installation and dismantlement of tower crane in response to increasing tower crane-related accidents during the year (6 courses)
- Expansion of customer-oriented practical training
- 44.9% of all courses are comprised of practical training to immediately apply to workplace operations after completion of training
- Opportunity for training is expanded to workers in the Seoul metropolitan area through operation of Central Training Facility (3,440 workers; 27.0% of all manpower)

2 e-Learning Education (3 courses, 136,734 workers)

- More choices for learning to make through development of new courses
- Operation of diversified and individualized training courses
- Revision of curriculum and replacement of aging contents to accommodate educational needs
- Opening of new courses to serve the workers in the fields

prone for service industrial accidents, such as delivery and parcel services

- Expanded education for workers vulnerable to occupational hazards (students from specialized high schools, delivery and courier service workers)
- Free e-learning courses available to industrial reserve manpower, including students from specialized high schools and military personnel (15,371 people)
- Construction of educational platform for supervisory officers of migrant workers in response to increasing accidents amongst foreign workers (6 courses)
- Improved quality of e-learning through development of quality contents
- Updated contents, including applicable laws and regulations and statistics on accidents, through development of contents (76 sessions) concerning safety and health of delivery workers, etc.
- * Volume of contents as of December, 2017: 1,076 sessions (30 minutes per session)

MAJOR ACTIVITIES IN 2018

1 Collective Training (83 courses in 4 fields for 12,735 trainees)

- Operation of training courses and improvement of educational environment
- Revision of curriculum under the consideration of environmental changes and customers' needs (2 new courses, 23 revised courses)
- Strengthened functions of training by providing educational courses to the groups leading the occupational safety and health, including employees of the agency (43 times for 1,000 trainees) and occupational safety and

Occupational Safety and Health Training Brings Happy Energy for All

health inspectors under the Ministry of Employment and Labor (10 times for 220 trainees)

- Improvement of customers' convenience through expansion of training courses at the Central Training Facility
- Expansion of customer-oriented training courses focusing on practical training
- Operation of pilot courses for virtual-reality training courses on safety and health (approximately 30 different courses developed)
- * Improved effectiveness of training by using 10 minutes of each course
- Plan (with allocation of budget) to expand the practice field and Central Training Facility for installation and dismantlement of tower crane

2 e-Learning Education (3 courses for 70,000 trainees)

- Expansion of training course tailored to various levels of trainees
- Operation of tailored training courses with training contents redesigned to accommodate the levels, business

types and occupational types of trainees based on the level of trainees and characteristics of workplaces

- Enhanced training for the working group vulnerable to industrial accidents
- Development of contents preventing industrial accidents for golf course aides, overworked postmen and commuters
- Development of contents preventing trauma for emotional laborers and those who have either witnessed or experienced industrial accidents

3 Collaborative Training

- Operation of safety and health courses for CEOs
 - Operation of courses for CEOs through collaboration with Graduate School of Business, Chung-Ang University (1 course for 30 trainees)
- Training course to develop professional workforce in the field of OSH at SMEs
- Development of professional workforce by assisting tuitions for employees of SMEs to complete master's degree in occupational safety and health



Occupational Safety and Health Certification

KEY ACHIEVEMENTS IN 2017

1 Securement of fundamental safety through safety certification and examination of machinery, protective device and protective gear

- Procurement of ultimate safety through regular examination, assessment and certification of safety for harmful factors, hazardous machinery/equipment and protective devices and gears prone to industrial accidents

PERFORMANCE OF SAFETY CERTIFICATION, SELF-REGULATORY SAFETY EXAMINATION REPORT AND SAFETY INSPECTION IN 2017

Safety Certification			Self-Regulatory Safety Examination Report		Safety Inspection
Hazardous Machinery/ Equipment	Protective Device/ Gear	S Mark	Hazardous Machinery/ Equipment	Protective Device/ Gear	
44,086	5,931	2,338	10,031	1,066	43,200

2 Cause analysis on serious accidents related to tower crane, mobile crane and aerial work platform and establishment of special countermeasures

- Securement of safety for tower crane facilities, operation of task force to reduce accidents and development of fundamental corrective measures based on insights of OSH professionals in order to strengthen responsibility for safety management by each principal agent
- Development of corrective measures to strengthen production criteria·verification screening·self-inspection for mobile crane·aerial work platform as well as counter actions to enhance safety protocol for user

3 Improvement of safety examination measures concerning mobile crane-aerial work platform

- Expansion of designated examination sites (15 sites→32 sites) and development and application of examination facility, replacing the consignment services for facilities of safety and load examinations
- Implementation of cooperative system with the Korea Transportation Safety Authority concerning notifications of vehicles without safety examination during regular examination of automobiles

4 Development of measures to update technical standards reflecting the demands from the industrial circles

- Procurement of the latest international standards and Korean Standards for safety certification and examination criteria through organization and operation of expert groups for each field of safety certification

5 Support for investigation of causes concerning protective device-related serious industrial accidents

- Support for analysis of explosive potentials from the gas flow into explosion-proof lights and investigation of causes concerning serious industrial accident, including support for mechanical performance tests on tensile load

MAJOR ACTIVITIES IN 2018

1 Fulfilling the role of leading institute on safety certification, safety examination and assessment of private accident prevention institutes

- Construction and operation of work performance systems for an international safety certification·assessment agency in order to improve the levels of OSH services by private accident prevention institutes and the levels of

“ Occupational Safety and Health Certification Institute Specialized in Safety Certification and Assessment ”

prevention for occupational accident caused by hazardous machinery devices

2 Improvement of safety examination rates for mobile crane-aerial work platform

- Promotion of safety examination and guidance of systems for vehicles without safety examination through cooperation with relevant authorities and construction companies

3 Safety examination system for conveyor and industrial robot

- Identification of workplaces using conveyors and industrial robots and encouragement for those workplaces to apply for safety examinations by utilizing the findings from the working environment surveys

4 Enhanced surveillance system for the market of protective device and PPEs for securing effectiveness of safety certification system

- Protection of Korean OSH markets by preventing distribution of defective-uncertified products illegally imported into Korea through implementation of collection test system on safety-certified products

5 Promotion and support of industry related to protective device and PPEs

- Supports for development of new products, including financial aids for research and development, enhancement of MOU activities with overseas certification institutes, and supports to secure export competitiveness for businesses, including issue of test reports in English

6 Heightened mobile app system to provide information on safety-certified products

- Improvement of mobile Apps to ensure users to promptly

verify information on certified products and manufacturers at the site

7 Implementation of comprehensive assessment on private accident prevention institutes

- Reinforcement of evaluation tasks through implementation of comprehensive assessments by establishing an organization dedicated to the assessment of private accident prevention institutes, which used to be dispersedly performed by the Ministry of Employment and Labor and KOSHA

8 Establishment of regulations on assessment procedures and reorganization of evaluation system

- Strengthened fairness and transparency for private accident prevention institutes by establishment of regulations on assessment procedures, and unification of assessment standard and procedures for consistent assessment

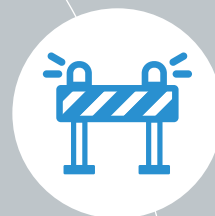
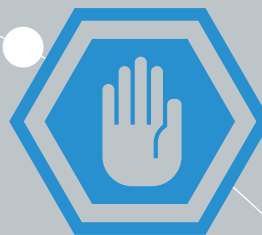




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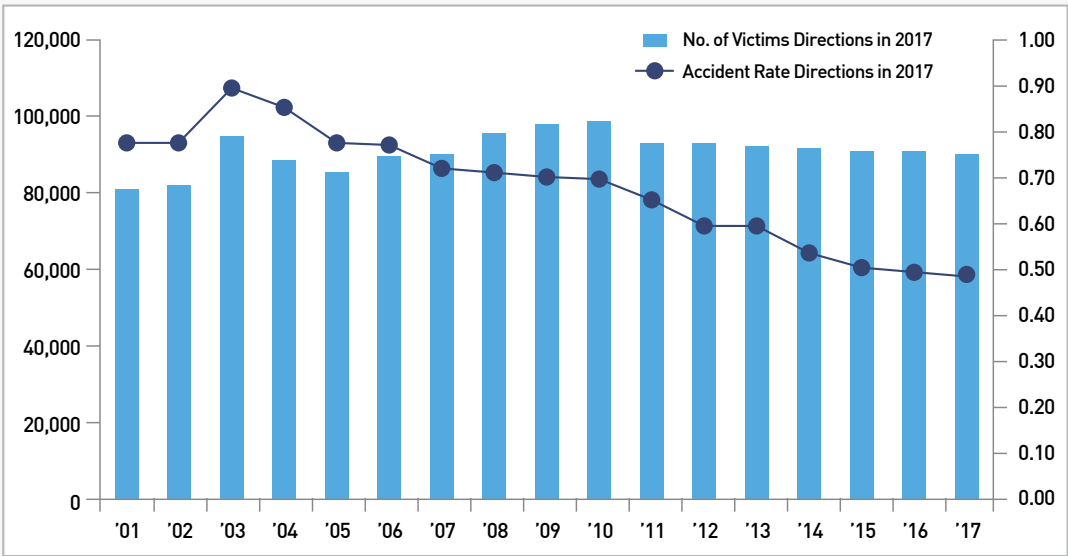
4 STATUS OF OCCUPATIONAL ACCIDENTS IN 2017



OVERVIEW

- Of 18,560,142 workers working at 2,507,364 workplace that are eligible for occupational accidents compensation insurance in 2017, 89,848 workers required 4 or more days of nursing and accident rate was 0.48%.
- The Number of workers increased by 0.7% compared to 2016 and occupational accident victims decreased by 0.9% and accidents rate decreased by 0.01%p.
- From July 2000, the coverage of occupational accidents insurance has expanded from workplace with 5 workers or more to 1 person or more which resulted in sudden increase of accidents rate until 2003 and from then on until 2016 it has been showing continued downward trend.

[Figure 1] Number of victims & accident rate by year



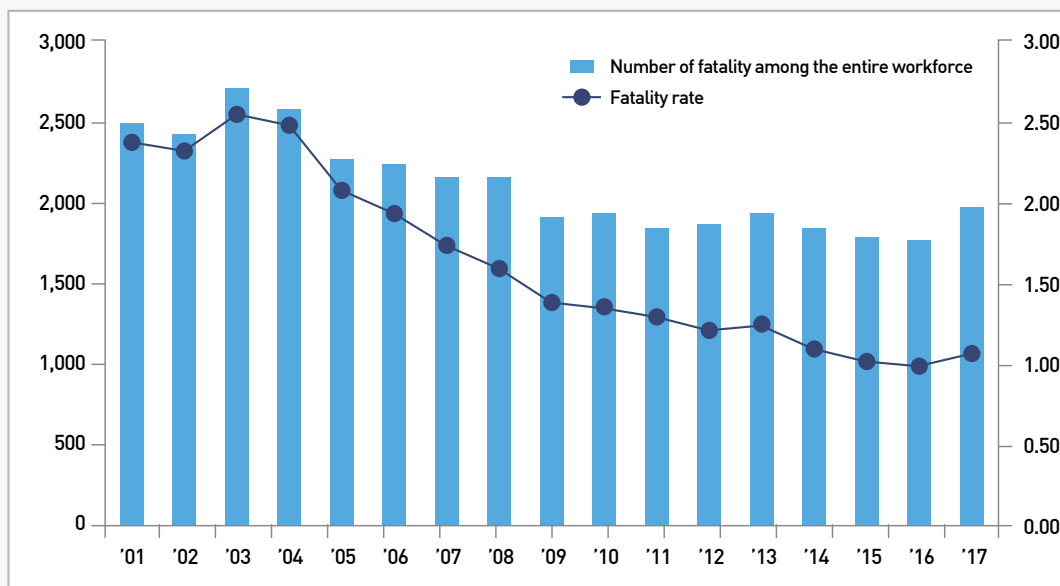
STATUS ON FATAL ACCIDENTS

- Fatal victims were 1,957 persons and of those, work-related accidents were 964 and death from occupational disease were 993.
- The fatality rate per 10,000 workers were 1.05‰, which was 0.96‰ in 2016 thus decreasing by 0.09‰p. Work-related accident rate per 10,000 workers was 0.52‰, 0.01‰p decrease from 0.53‰ in 2016. Kinds of accidents were pneumoconiosis (439), work-related diseases (cerebrovascular disease etc.) (411), and falls (366) in order.
- The number of fatalities was on downward trend from 2004 to 2011. From 2011, it increased slightly until 2014 when it started to decrease again. The rate of fatality among work-related accidents was on slight increase until 2013 and it started to going down again from 2014.

ACCIDENT INDEX

- Accident Rate: $\text{Number of victims} / \text{Number of workers eligible for occupational accidents insurance} \times 100$.
- Fatality rate per 10,000 workers: $\text{Number of fatalities} / \text{Number of workers eligible for occupational accident insurance} \times 10,000$.
- Morbidity rate: $\text{Number of victims for work related diseases} / \text{Number of workers eligible for occupational accident insurance} \times 1,000$.

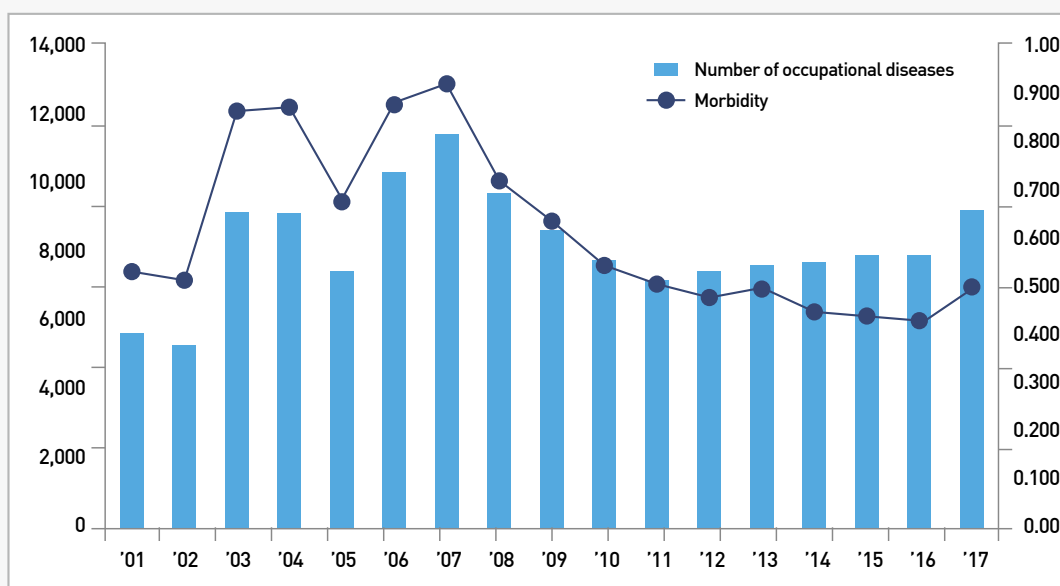
[Figure 2] Number of fatality and rate of fatality by year



STATUS OF OCCUPATIONAL DISEASE

- The number of workers suffered from occupational disease in 2017 (including deaths) were 9,183, which increased by 1,307 (16.6%) from 7,876 the year before.
- Of these, diseases directly from the work were 3,054 in 2017 which increased by 820 (36.7%) from 2,234 the year before and work related disease were 6,129 which increased by 487 (8.6%) from 5,642 the year before.

[Figure 3] Number of work related disease and morbidity rate by year



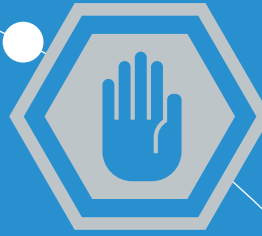


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APPENDIX

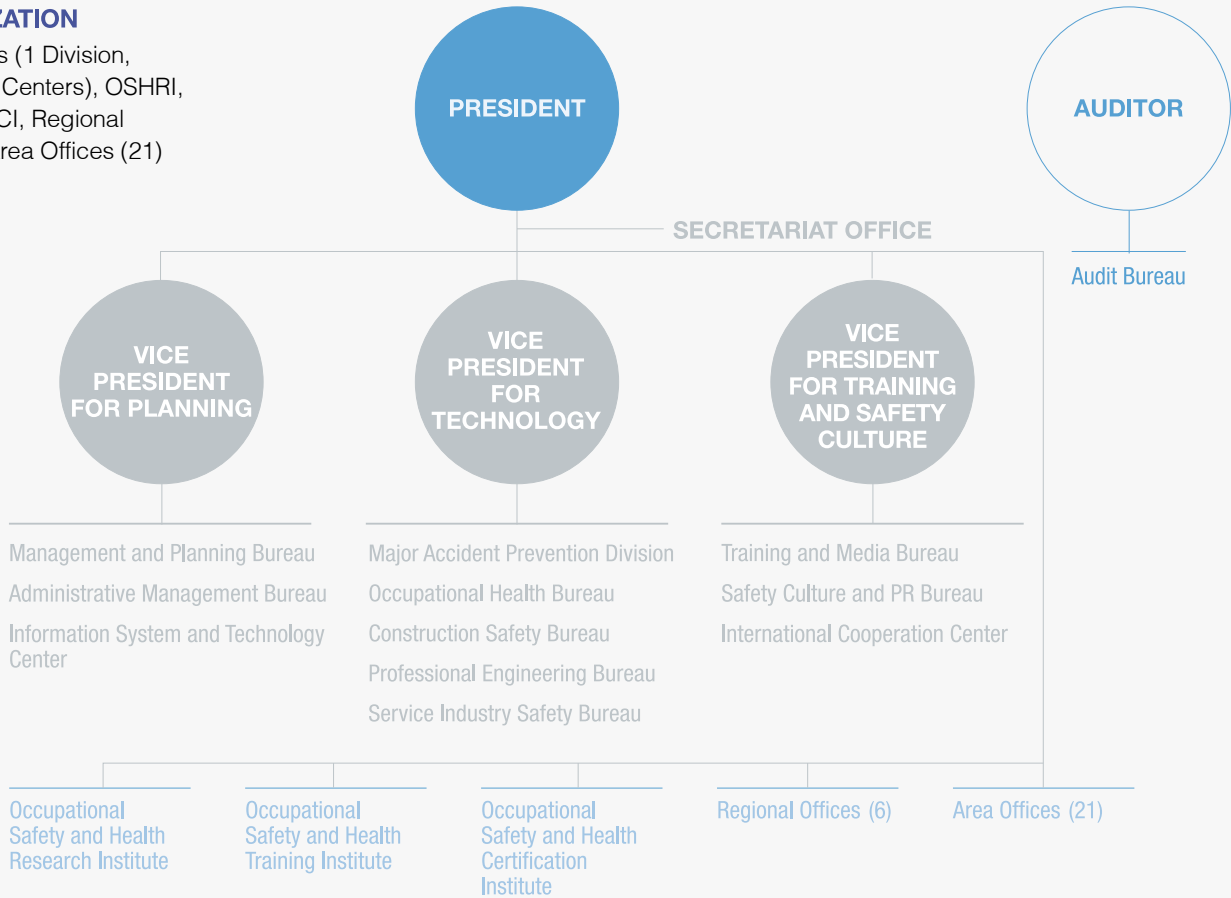
- Organization & Staff
- Financial Report
- History
- Contact Address



Organization & Staff

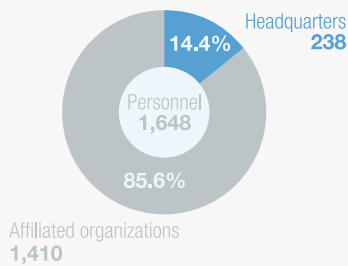
1. ORGANIZATION

Headquarters (1 Division, 9 Bureaus, 2 Centers), OSHRI, OSHTI, OSHCI, Regional Offices (6), Area Offices (21)



2. STAFF

Headquarters 238 (14.4%) & Affiliated organizations 1,410 (85.6%)



(Unit: persons)

Total	Headquarters	OSHRI	OSHTI	OSHCI	Regional / Area Offices
1,648	238	145	50	70	1,145



1. MAIN RESOURCES

Occupational accident compensation insurance and contributions for the prevention fund pursuant to the Article 96 of the Occupational Accident Compensation Insurance Act



2. REVENUE

(Unit: Million Won)

Division	Budget 2018 (A)	%	Budget 2017 (B)	Increase/ Decrease (A-B)	%
Total	490,236	100.0	503,295	△13,059	△2.6
Occupational Accident Compensation Insurance and Prevention Fund	487,736	99.5	500,795	△13,059	△2.6
Earned Income	2,500	0.5	2,500	0	0.0



3. EXPENDITURE

(Unit: Million Won)

Division	Budget 2018 (A)	Budget 2017 (B)	Increase/ Decrease (A-B)	%
Total	490,236	503,295	△13,059	△2.6
Support for "Clean Workplace"	68,525	64,692	3,833	5.9
Accident Prevention by Industrial Classification	47,121	46,631	490	1.1
Safety Accreditation or Safety Inspection	6,009	6,748	△739	△11.0
Improvement of Hazardous Working Environment	49,026	21,966	27,060	123.2
Protection of Worker's Health	22,736	22,730	6	0.0
Establishment of Safety and Health Culture	29,094	27,649	1,445	5.2
R&D and International Cooperation	6,470	7,570	△1,100	△14.5
Construction of Facilities for Occupational Accident Prevention	700	7,000	△6,300	△90.0
Operation of Occupational Safety and Health Information System	5,686	5,515	171	3.1
Loan for Occupational Accident Prevention Facilities	122,794	166,276	△43,482	△26.2
Personnel and Operating Expenses	132,075	126,518	5,557	4.4

History



Foundation 1987~1990

DECEMBER 1987

Established the Korea Industrial Safety Corporation

JULY 1989

Established the Occupational Safety and Health Research Institute



Take-off 1991~1994

OCTOBER 1991

Held the Korea-Germany Occupational Safety Cooperation Meeting

FEBRUARY 1992

Held the Korea-Japan Cooperative Meeting on Occupational Diseases

AUGUST 1992

Held the Tripartite Meeting for Realizing Low-cost, Highly-effective Zero-accident Workplaces

AUGUST 1992

10,097,600 people participated in Zero-Accident Signature Campaign

NOVEMBER 1993

Held the 1st OSH Awards

Acceleration 1995~1998

1995

The occupational accident rate of Korea decreased to below 1%
Headquarters moved to the present location in Bupyeong, Incheon.

DECEMBER 1995

Completed the Center for Safety and Health Research

SEPTEMBER 1997

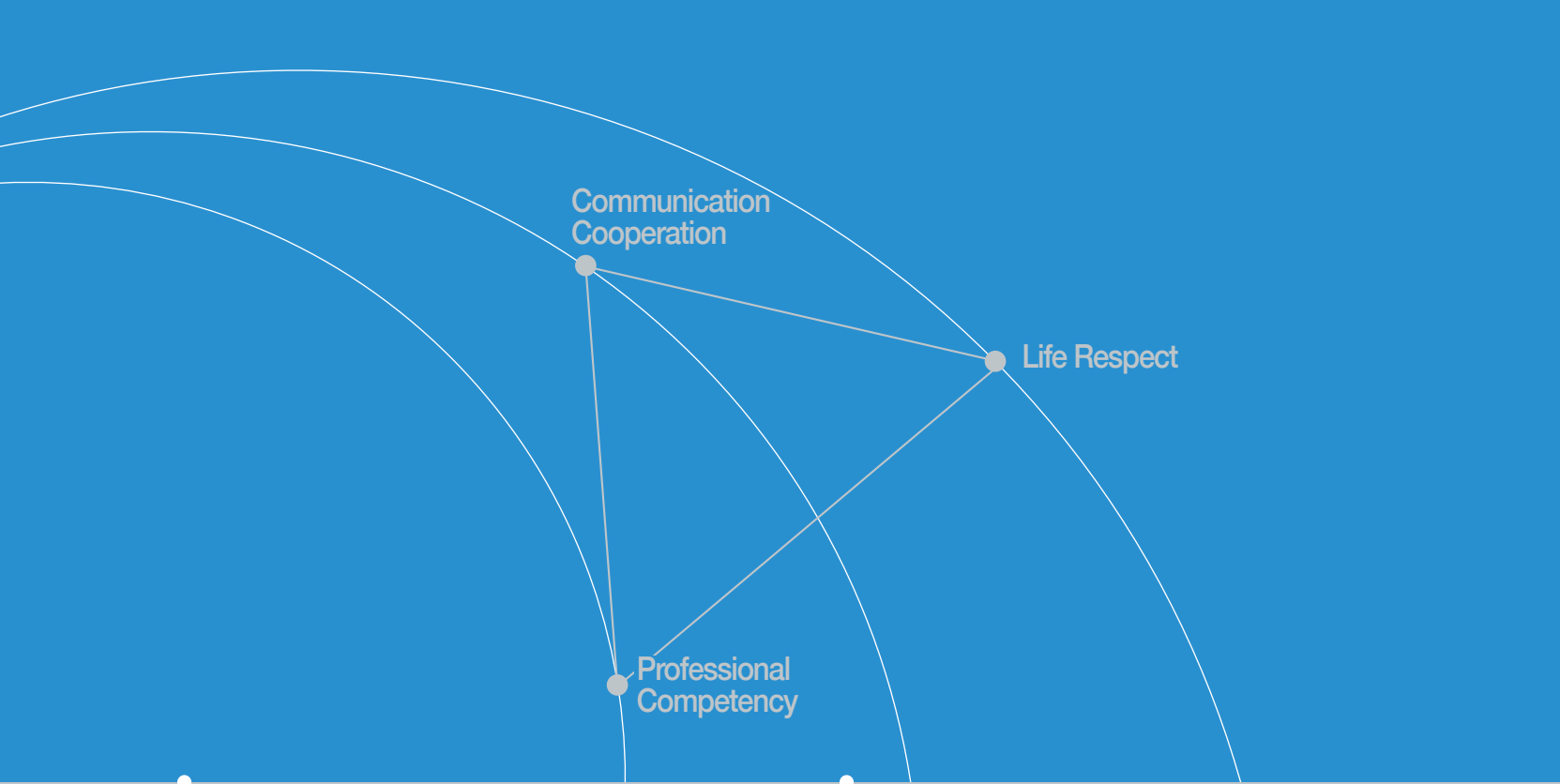
Completed the Industrial Chemicals Research Center

APRIL 1998

Held the 14th APOSHO Annual Conference in Seoul, Korea

DECEMBER 1998

Integrated the Occupational Safety Institute and the Occupational Health Institute



Growth and Development
1999~2009

NOVEMBER 2000

KOSHA-BVQI Agreement on Mutual Recognition of the Occupational Safety and Health Management System

SEPTEMBER 2004

Received Grand Prize at the National Productivity Awards

DECEMBER 2004

Completed the Center for Chemicals Safety and Health

OCTOBER 2007

Issued the 5,000th Safety Certification Mark ('S' Mark)

DECEMBER 2007

Celebrated the 20th anniversary of KOSHA's establishment

JUNE 2008

Held the 18th World Congress on Safety and Health at Work and adopted the Seoul Statement on Safety and Health at Work

JANUARY 2009

Changed name to the Korea Occupational Safety and Health Agency

Second Take-off
2010~2017

FEBRUARY 2010

Established the Service Industry Department

DECEMBER 2011

Announced the new CI and vision at the 24th anniversary of KOSHA's establishment

JANUARY 2013

Established the Major Accident Prevention Department

JANUARY 2014

Established the Partnership Program Department

MARCH 2014

Held an opening ceremony for the new headquarters of KOSHA in Ulsan

JUNE 2015

Hosted the 31st International Congress on Occupational Health

DECEMBER 2015

Completed test facility for chronic inhaling of toxicity

NOVEMBER 2016

Opened central training facility for OSHTI

JANUARY 2017

Opened Occupational Safety and Health Certification Institute

DECEMBER 2017

Celebrated the 30th anniversary of KOSHA's establishment





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