# 2003 Newsletter

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#### OSH Statistics

Accident rate increased by 0.08% during the first half of the year.

Highest rate shown in construction industry with the number of the musculoskeletal disease patients also increased by 79%

The accident rate during the first half of this year recorded a 0.08% year-on-year increase. The Ministry of Labor has recently revealed that the total number of occupational casualties during the first half of the year reached 46,665 or an increase by approximately 20% over that of the year earlier, 38,838. Accordingly, accident rate has also increased to 0.45% this year from 0.37% of the year before, indicating an increase by 0.08%.

According to the Ministry of Labor, the number of fatalities increased by 240 to 1,482 from 1,242 last year. On the other hand, the number of patients suffering from occupational diseases such as overwork, stress, and liver diseases increased by 974 to 3,049, or a 46.9% year-on-year increase. Of these patients, the number of patients suffering from cerebro/cardio-vascular diseases jumped to 1,314 from 1,105 of last, an increase by 18.9% over the same period of the year earlier, while those suffering from musculoskeletal diseases increased by as much as 79.1% compared with the same period of last year. Accident rate has increased in overall industries, with the highest rate shown in the manufacturing and construction industries.

Especially in the case of construction industry, accident rate increased to 0.47% from 0.34% of last year, indicating the highest increase by 0.13%. Accidents at workplaces with less than 50 workers accounted for 69.1% of the total accidents, while those at workplaces with less than 5 workers accounted for 21.1% of the total accident showing that many accidents still continue to occur at small workplaces.

To break down by type of diseases, contractions, overturning, falls and other similar diseases took up as high as 70.68%, indicating that the conventional-type, repeated accidents have not ceased to occur. Workers with less than 1 year of continuous service accounted for 59.25% of the total accidents. Workers with less than 6 months of continuous service amounted to 48.67% of the total accidents.

(August 30, 2003, KOSHA Safety & Health Newsletter)

### Main OSH Policy

Prevention of musculoskeletal disorder made compulsory for employers

Specific scope of musculoskeletal disorder-prone works specified Labor circle files a protest, Scope too narrow Ministry of Labor amends Regulation on Industrial Health Standards

In the future, when employees are engaged in musculoskeletal disorder-prone works, the employer must complete a survey of ergonomic hazard within 1 year as part of the full-scale prevention of musculoskeletal diseases implemented based on specific matters related to employer's obligation to prevent musculoskeletal disorder.

The Ministry of Labor announced on 12th July the amended, Regulation on Industrial Health Standards, which contain measures of preventing workers' health problems including employer's specific obligation to prevent musculoskeletal disorder, systemization of the system of classifying chemicals harmful to workers, and the expanded range of dusty workplaces.

Pursuant to this amended regulation, employers whose employees working in musculoskeletal disorder-prone environment must complete an investigation into harmful factors by June 30, 2004, and thereafter should periodically conduct the investigation every 3 years. If the result of investigation shows likelihood of the disorder occurring, the employer is required to install auxiliary facilities, adjust the height of working table or otherwise improve working environment. At the same time, the employer must medically control workers suffering from musculoskeletal diseases or, if necessary, improve working environment. The employer must inform employees engaged in musculoskeletal disease-prone works of the causes of diseases, symptoms, correct working posture and measures to be taken when symptoms are detected

If the number of musculoskeletal disorder patients is more than 10 or 5 per year exceeding 10% of the total number of workers, the employer is required to prepare and implement a 'Musculoskeletal disorder prevention. Meanwhile, the Ministry of Labor announced the specific range of harmful work on July 15. The announcement specified 11 types of disorder including a work where the keyboard or a mouse is operated for at least 4 hours a day to input data into a computer.

The labor union express its objecting claiming that the range of disorder is too small. Therefore, the labor, employer and the government met in June and they agreed that experts recommended by the labor will conduct a site survey and decide the criteria that suit the real situation.

(July 26, 2003, KOSHA Safety & Health Newsletter)

### Update in KOREA

Accident at coal mine in Samcheok City, 18 casualties

At approximately 12:30 p.m. of the 6th of August, gas leaked and was ignited from inside Sangdeok Mining Office Colliery of Kyongdong Co., Ltd. (located in Sangdeok-ri, Dogye-eup, Samcheok City, Gangwon Province) where Cho Byong-ki (51) and Lee Sang-cheol (45) died of burns. Four workers including Han Yung-taek (39) were evacuated to Seoul Hangang Sungsim Hospital and Wonju Christian Hospital respectively, and 12 other workers including Shin Sang-kun (50) were evacuated to Taebaek Central Hospital for treatment.

The accident occurred inside the underground working face at a point approximately 3,383fm from the pit mouth. Methane gas suddenly started leaking and caught fire, however, the working face did not collapse fortunately because there was no gas explosion.

There were approximately 20 miners working at the site of the accident inside the pit shaft. The rescue work was extremely difficult because additional gas burning or an explosion was feared after the accident.

Sang Duk mining office employs 1,535 miners, and it produced 1,061,000 tons of coal last year.

The police, mining office and the security office believe that methane gas accidentally leaked and caught fire from unknown sparks during the process of mining coal. They are checking for accurate causes of the accident and whether there had been lack of safety management.

On November 22 last year, methane gas exploded in the 17th underground conveyance pit at a point appropriately 700fm from the Dongdeok pit mouth, Dogye Mining Office of the Korea Coal Mining Corporation located in Sangdeok-ri, Dogey-eup, Samcheok City. The working face collapsed causing 4 fatalities with 7 injured.

(August 7, 2003, Hankook Ilbo)

#### Safety manuals for schools

Schools to maintain certificates of fire inspection - Ministry of Education and Human Resources

Development disclosed in its Accident prevention program report

Safety measures for schools and related facilities will be significantly strengthened. Safety manuals will be prepared for schools, and prior to opening a new school, the school must submit a

certificate of satisfactory fire inspection.

At a cabinet meeting held on the 22nd of July, the Ministry of Education and Human Resources

Development disclosed its plan as above when it reported an accident prevention program in
relation to a fire that occurred involving the soccer team of Cheonan Elementary School.

The Ministry of Education and Human Resources Development plans to develop an integrated design and safety manual by the end of the year for teachers, sports facilities and other school facilities for distribution to each office of education and school. The manual will be used as a design and safety guideline for the school designers and managers to prevent accidents by standardizing school facilities to fit the eye level of students considering the students' body index and the mental characteristics in case of an accident.

In order to strengthen safety management and training at schools, the Ministry of Education and Human Resources Development plans to have each school and the office of education designate teachers in charge of safety training and junior supervisors. The Ministry also plans to examine a program of having the office of education appoint safety managers who will tour schools to check safety matters.

In the meantime, in order to prevent disasters elated to school sports activities such as the fire occurred at Cheonan Elementary School, the Ministry will appoint a junior supervisor in charge of school sports within the Ministry and promote study on improvement of school sports policy such as ways of improving regulations governing the allowing of prominent athletes to advance to higher grade school and national youth sports meeting by September.

The Ministry of Education and Human Resources Development also plans to establish enforcement bylaws of the laws related to the establishment and operation of schools and the extracurricular studies, making it compulsory to submit certificates of fire inspection issued by relevant fire station when a new school is opened or when a school is relocated.

(July 23, 2003, Daily Labor News)

Introduction of an engineman licensing system and other railroad safety measures

Ministry of Construction and Transportation plans to introduce Railroad Safety Act

The Ministry plans to introduce a system of issuing licenses only to the qualified enginemen, and integrated railroad safety plans not allowing persons to carry inflammable materials or explosives within a train.

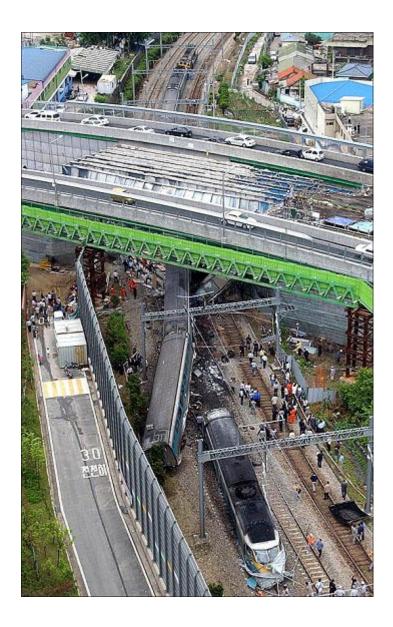
The Ministry of Construction and Transportation revealed on August 15th of its plan to introduce a Railroad Safety Act (Draft) on August 16th and to present the draft bill to the ordinary National Assembly session via examination by the Regulation Reform Committee and the Ministry of Legislation. According to the draft bill, a new system will be introduced where licenses are issued to enginemen only when they are qualified through aptitude test, medical examination and training from the existing system under which the enginemen used to be certified and managed by the Korean National Railroad, Seoul Metropolitan Subway Corporation and other operating body.

Qualification standards will also be established prescribing that even the operation commanders working in the Command Room should have at least 5 years of experience as an engineman and 5 years as a station supervisor. A general program related to railroad safety will be established every 5 years to promote the safety of railroad facilities and cars, foster and control the supply of specialists, and develop technologies.

Punishment will be also strengthened and persons carrying weapons, explosives, toxic materials and other harmful materials inside a train will be sentenced to imprisonment for a period of 2 years or less, or to a fine not exceeding 20 million won. Manufacturing railroad facilities and cars will require quality certification issued from authorized certification agencies.

Recently, there have been a series of accidents occurred in the railroad protective areas. In connection with this, if corrective actions and instructions are not carried out, the railroad operator may demand the suspension or cancellation of construction work. Persons failing to comply with such demand will be sentenced to imprisonment for a period of 2 years or less, or to a fine not exceeding 20 million won.

(August 30, 2003, KOSHA Safety & Health Newsletter)



15th Triennial Congress of the International Ergonomics Association held

#### For six days from August 24 at COEX



Ergonomic experts from round the world have gathered in one place. Many of the participants presented essays regarding the musculoskeletal diseases emerging as an important issue in Korea, drawing particular attention of the persons related to safety and health.

International Ergonomics Association (IEA) and the Ergonomics Society of Korea (ESK) jointly hosted the 15th Triennial Congress of the International Ergonomics Association at the COEX Convention Center for 6 days (August 24 ~ August 29). At the congress held under the theme of Ergonomics in the Digital Era, participants presented papers on researches on human-friendly design that can create harmony between mankind and computer systems, and ergonomics studies aimed at preventing musculoskeletal diseases that has emerged as the most important issue at industrial sites of Korea.

As an annex event, an 'Ergonomics Industry Exhibition' was held at the Atlantic Hall of COEX for 3 days (August 25~August 27). Products related to ergonomics were introduced and business sessions allowed, including the '7th conference held between the Ergonomic Society of Korea and the Ergonomics Society of Japan.'

(September 1, 2003, KOSHA Safety & Health Newsletter)

## UPDATE in KOSHA

KOSHA plans to provide support for industrial sites damaged by typhoon

**KOSHA** plans to provide loans and organize a recovery support team



KOSHA plans to provide support to business operators victimized by the Typhoon 'Maemi' to help them normalize their business by providing loans and medical support.

In order to check the damage caused by the typhoon and flood early, KOSHA will install and operate a 'Damage Reporting Office' (For information, call: 1544-3088) in each area including Busan.

KOSHA will grant loans not exceeding 500 million won for each enterpriser at an annual interest rate of 4% with a 7-year grace period under an installment payment plan to help victims repair or replace safety facilities. Equipment eligible for loans includes installation of new presses and cranes and other machines and tools, construction of ventilation systems to improve working environment, local exhaust systems, air cleaning systems and lighting systems.

To implement this plan effectively, KOSHA will send an information letter on financing to each enterprise. It will provide loans to desiring enterprisers after discussing loan procedure and methods with them.

KOSHA also plans to organize and operate a disaster prevention and recovery support team in each area. KOSHA will dispatch a safety management team to prevent electric shock, fires or explosions that might occur when the petrochemical plants in Ulsan and Yeosu are re-started. It will provide assistance to the tower crane accident site in Busan and Changwon to ensure safety removal of the fallen tower crane, and will also conduct tower crane inspections at each construction site.

KOSHA will dispatch a medical support team composed of doctors and nurses to prevent skin

diseases expected to occur during recovery work centering around the flooded areas, and provide simple first-aid treatment at site.

(September 16, 2003, Daily Labor News)

- o Strengthening of international cooperation among Asian countries regarding industrial safety and health
  - KOSHA concludes technical cooperation agreements with Vietnam and Mongolia



As items related to safety and health are being standardized and specialized internationally, international cooperation in the occupational safety and health sector among Asian countries is active. Kim Yong-dal, President of KOSHA, visited Vietnam, Mongolia and Japan during the period from August 25 to September 2 to discuss ways of international cooperation in the safety and health sector, and signed technical cooperation agreements.

On August 26, KOSHA President Kim visited the Ministry of Labor Immigrant and Social Affairs (MOLISA) of Vietnam to discuss the safety and health materials of mutual interest and concluded a mutual technical cooperation agreement with the Vice-Minister of MOLISA (Nguyen Luong Trao) under which KOSHA safety and health experts will be dispatched to provide technical advice at site, related persons from MOLISA invited to Korea for training, and safety technologies and information are exchanged between the two countries.

On August 28 and 29, KOSHA President Kim visited Japan Industrial Safety and Health Association (JISHA) and Japan International Center for Occupational Safety and Health (JICOSH) respectively to discuss ways of achieving joint progress through mutual cooperation between the two countries and of exchanging cooperation to seek the development of occupational safety and health in the Asian-Pacific areas.

Meanwhile, KOSHA President Kim on September 1 concluded a technical cooperation agreement with Chinzorig, Vice-Minister of the Ministry of Social Welfare and Labor (MSWL) of Mongolia. Under the agreement, KOSHA will dispatch KOSHA experts to Mongolia to provide technical advice, invite persons related to MSWL of Mongolia for training and exchange technical information relating to safety and health.

With the signing of agreement with Vietnam and Mongolia, the number of institutions with which KOSHA has signed cooperative agreement became 23 in 10 countries including the U.S., U.K. and Japan.

(September 15, 2003, Safety and Health Information)

o Technical support provided to prevent accidents involving tower crane at construction sites

Recently, there has been frequent accidents involving tower cranes at construction sites, and typical accidents are likely to occur during the summer time. In order to prevent such accidents, KOSHA has conducted special safety training for related personnel, including wide range of technical support.

During the period from August to December, the Ministry of Labor and KOSHA plan to provide technical support at construction sites throughout the nation to prevent accidents when tower cranes installed or dismantled or during telescoping (when the mast is rising).

Technical support will be provided mainly to the topless models and the tower cranes imported from Southeast Asia (Aged tower cranes with 10 or more years elapsed since manufacture) until the end of September, and to the tower cranes with 5 or more years elapsed since manufacture with I or more years have elapsed since last inspection from October to December.

Details of technical support include the provision of safety training prior to installing or dismantling tower cranes, or prior to telescoping, organizing work team and allocation of work, checking the appropriateness of the work manuals, and checking the work readiness.

Persons desiring to receive technical support at construction sites where tower cranes are used may send an application to the regional headquarters of KOSHA and/or guidance office inspection team by 10 days prior to starting work.

This technical support program is being implemented to prevent serious accidents involving tower

cranes following the tower crane accident that occurred at the Pyeongtaek apartment construction site with 5 dead and 4 injured.

(September 1, 2003, Safety and Health Information)

 Technical training on the prevention of musculoskeletal conducted for the owners of workplaces where musculoskeletal diseases have occurred or are likely to occur

On August 13 at the auditorium of Gwangju Trade Center, Gwangju Regional Labor Administration and Gwangju Regional Headquarters of KOSHA jointly conducted training on preventing musculoskeletal diseases and technical guidance to approximately 120 owners of the workplaces where musculoskeletal diseases occurred during last year and this year, or are likely to occur, and to managers of health management agents.

This training was conducted to induce the musculoskeletal disease prevention system early and to revitalize voluntary preventive activities at industrial sites as the musculoskeletal diseases have become a social issue recently. This training was conducted centered on the musculoskeletal disease prevention system and related laws, guidelines on investigating into the harmful factors of the musculoskeletal disease-prone work, and the musculoskeletal disease prevention and management programs at workplaces.

Gwangju Regional Headquarters at this training asked participants to strive to observe 10 key basic rules of preventing musculoskeletal diseases such as the adjustment of the height of the work tables, utilization of auxiliary facilities to transport heavy materials, use of ergonomically designed chairs, improvement of the work tools and parts boxes, reduction of the tool weight and erection of auxiliary support, installing fatigue-preventive mat on the floor, management of electric tools and wearing of safety gloves, wearing of shoulder and knee protective band, practicing fatigue-preventive stretching, and taking frequent breaks.

(September 1, 2003, Safety and Health Information)



o Safety and health experts gathered to discuss recent trends of safety and health

Occupational Safety & Health Research Institute (OSHRI) held a symposium where 9 themes were presented along with other designated discussions

Safety experts met to discuss the recent trends of safety and health based on industrial safety and health surveys conducted on workers and owners of manufacturing and non-manufacturing industries.

OSHRI (Director: Kim Kwang-jong) of KOSHA held a symposium at the 1F retreat room in convention center of Hoam Professor Hall of Seoul National University on 25th June. Safety and health experts had a presentation session here covering the results of the in-depth surveys conducted on the trends industrial safety and health.

Presented at this session included the results of research carried out by Shin Chang-sup, Professor of Chungbuk University, on the safety and health organizations at workplaces and the prevention of work-related accidents, research carried out by Dr. Yun Jo-duk of the Korea Labor Institute on occupational safety and health policies, analysis of the effects of preventing occupational accidents of the occupational safety and health training presented by Lee Ho-sung, a research staff of the Korea Employers' Federation, and the analysis of workers' recognition and participation index presented by Kim Soon-hee, the Environment and health bureau director at Sanan Headquarters of the Federation of Korea Trade Unions.

Presentation continued covering the evaluation of loss and expenses resulting from accidents carried out by Professor Choi Jae-wook of Korea University, safety consciousness and labor quality by Professor Kim Wang-bae of Yonsei University, examination of the causes of stress immediately

after work by Professor Chang Se-jin of Yonsei Wonju college of medicine, and the examples of trend surveys and terminal research by Professor Lee Sung-yong of Kangnam University.

Towards the end of the meeting, designated speakers met and discussed matters related to each theme.

(July 2, 2003, KOSHA Safety & Health Newsletter)

- Explosion-proof inspection to be conducted locally instead of from Japan
  - KOSHA signed a mutual recognition agreement with Technology Institution of Industrial Safety (TIIS) in Japan

Up until a while ago, when a maker desires to export explosion-proof equipment such as electric and mechanical instruments manufactured in an explosion-proof structure to prevent explosions to Japan, the performance test was conducted only in Japan. Now a maker can obtain a Japan's certificate of performance test through a local performance-testing agency (KOSHA). This will not only revitalize typical industries but will also save foreign currency.



- KOSHA (President, Kim Yong-dal) signed an agreement with the Japan Technology Institution of Industrial Safety (TIIS) (Chairman Shigeru Morisaka), a Japan's representative certification agency at the KOSHA conference room on 23th, September. Under the agreement, certificates of test conducted on explosion-proof equipment will be approved by both parties.
- Now that the domestic explosion-proof equipment makers, who used to get certificate of explosion-proof test only from Japan to export their products to Japan, can obtain such certificates through KOSHA, they will have export competitiveness by realizing economic effects and time saving.

- During the past, even though the production capacity of local explosion-proof equipment makers has continuously grown, they had undergone many difficulties because they had to spend much time and expenses to pass the tests and inspections carried out by the destination countries prior to exporting products to advanced countries.
- Following the conclusion of this agreement, KOSHA now plans push joint projects including the mutual recognition of the test results (test reports) issued by any party, joint researches conducted on matters of mutual interest, exchange of employees and engineers for training, provision of technical consulting and exchange of information between KOSHA and Japan TIIS, and hold various types of seminars.
- -> In addition, in order to improve domestic safety and health technologies through cooperative projects with other advanced countries and to support export by related enterprises, KOSHA will continuously expand the signing of agreement on mutual recognition, which now stands at 14 agreements from 8 countries.
- Following the signing of the agreement on mutual recognition with Japan TIIS, KOSHA now can provide support to the domestic explosion-proof equipment as well as getting access to Japan's advanced design and manufacturing technologies, providing a good opportunity for KOSHA to disseminate such technologies to local manufacturers, said Kim Kwang-jong, director of OSHRI.