



Protecting Worker's Life and Health

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KOSHA helps Myanmar for OSH technology

Director General Baek Rak-moon of KOSHA and Director General Win Shein of Myanmar's Factories and General Labour Laws Inspection Department sign a policy consulting project on July 23 at Yangon Hotel in Myanmar.

This project is part of the Ministry of Employment and Labor's ODA-supported 2013 policy consulting program for employment and labor policy. Under this arrangement, KOSHA will help Myanmar set up OSH foundation.

- The Myanmar government plans to enact an OSH law within this year with policy advice and technology consultation from KOSHA.
- To this end, KOSHA will provide joint workshops, training programs in Korea for Myanmar government officials, and advice on OSH laws.

Joint workshops aims to see the current OSH status in Myanmar and to discuss support measures. Before this agreement, KOSHA signed a similar project with the Department of Labor and Employment of the Philippines to provide support to the Philippine government in OSH for one year from July 2012 including joint seminars, 3 consulting sessions on OSH, and training for Philippine officials. Director General for Planning of KOSHA Baek Rak-moon, in his speech, said, "This project will contribute to establishing occupational safety and health system in Myanmar, a country of great economic potential. Hopefully, two countries continue to work more closely together."



Mr. Baek(right) and Mr. Win Shein are exchanging the agreement.



Officials from KOSHA and its counterparts from Myanmar are taking a photo after signing the agreement.

KOSHA beefs up OSH efforts for Cambodia and the Philippines

KOSHA beefs up its OSH efforts for developing countries in Asia. President Hun-ki Baek signs MOU with Department of Labor and Employment, DOLE of the Philippines, on June 13 followed by MOU with Ministry of Labour and Vocational Training, MoLVT of Cambodia.

MoLVT: Cambodia's governmental organization that sets up policies on OSH and prevents occupational accidents
DOLE: a governmental organization to prevent accidents; supervise work places; implement policies; support workers to return to work; set compensation with these efforts, president Baek of KOSHA was awarded order on contributing to developing occupational safety and health in Cambodia after he agreed to extend the MOU. with these extensions, KOSHA continues to dispatch experts to give OSH training and invite Cambodian experts as well as provide technical materials. both nations, Cambodia and the Philippines extended the MOU with Korea signed in 2010 respectively for the coming three years (2013-2016).



President Hun-ki Baek is awarded order from Minister Vong Sauth of Labour and Vocational Training.

Meanwhile, KOSHA signed technical agreement with OSH organization in China and Hong Kong on May 23 to strengthen the OSH network within Asia, adding to already organized efforts of supporting other ten governmental agencies from eight nations including Mongolia and Vietnam. President Baek said that KOSHA would lead the OSH development in Asia by giving back to them what it has received from advanced nation as Korea emerged from recipient to doner nation.

Update News of MOU

Best practices of OSH across the nation

KOSHA opened a contest on best practices on occupational safety and health, celebrating the 46th Occupational Safety and Health Week. The contest was held in COEX, together with 6 related organizations, and served as an opportunity to introduce and share occupational safety and health activities of each other. The contest is an annual event where best practices from 6 organizations are introduced among 326 local autonomous organizations and public agencies who signed MOU with KOSHA, under the goal of strengthening OSH capability. In the contest, Busan Port Safety Council received the grand prize for its hard working in preventing occupational accidents in cooperation with



Director General for Planning (7th from the right) is taking a photo with awardees after the contest.

Busan Port Trade Union, Busan Port Safety Association, Busan Port Training Institute, Busan Port Logistics Council, Busan Local Office of the MOEL, Busan Port Authority, and KOSHA. Mr. Kwon-ho Koo, Director of the Management and Planning Department said that OSH activities joined by every stakeholder would help contribute distributing safety culture and reducing accidents, adding that strong point of the labor, management and the government should be harnessed to continue OSH activities.

KOSHA works together with department stores for workers' safety and health

President Hun-ki Baek of KOSHA signed Memorandum of Understanding on June 27, with his counterparts of Lotte Department store, Shinsegye Department store, Han-hwa Galleria, Hyundai Department store, AK Plaza Department store in en effort to make the workplaces safe. The MOU was signed with rising voice for safety of workers at partner companies of the large conglomerates and is meaningful in that representative companies in the distribution industry, department stores, would pursue workers not only in headquarters but partner companies.

The wholesale and retail trading sector including the distribution companies has been witnessing rising accident cases especially among their partner companies with lack of management. in particular building cleaning, facilities repairing, parking services are the sectors where workers are the most widely exposed to occupational risks. in addition, workers involved in the emotional labor are also the targets of the intervention with recently increasing concern for them.

The number of workers involved in the emotional labor is around 5.5 million among which 3.5 million are working with customers face to face. they have high chance to get mental illnesses due to verbal violence and other reasons while dealing with the customers. Also some of them are widely exposed to possibility of musculoskeletal disorders. in that sense, KOSHA decided to work with department stores and signed MOU on supporting workers' safety and health not only in the headquarters but in partner companies.

According to the MOU, KOSHA supports the five department stores to run joint program with their partners by giving consulting; set up OSH management system through technical assistance. In addition, KOSHA plans to carry out joint

campaigns with those conglomerates by engaging them in signing to show their commitment President Baek pointed out rising concern over workers' safety and health who are involved in the emotional labor, and workers should be treated as they treat customers. He added that this MOU with the five large department stores would be an opportunity to level up the safety and health of workers in the service sector.

> President Baek (4th from the left) is taking a photo after signing the MOU.



Making Icheon safe and pleasant

President Hun-ki Baek of KOSHA signed Memorandum of Understanding with Mayor Jo of Icheon, Gyunggi Province on making workplaces safe and pleasant, on June 20. This MOU is in an effort to raise the OSH level in the city in cooperation with local government which would ultimately strengthen the OSH capacity nationwide. A multifaceted intervention in support of companies in the construction, manufacturing and service sectors is expected to help workers there care for their safety and health. among them are: intensive OSH technical support and safety equipment rentals for construction workplaces publically ordered; training of workers; financial assistance for prevention facilities; beginning joint campaigns all of which would raise the level of safety and health of the city.

President Baek said that signing of agreement like this with around 60 local governments or autonomous agencies have been enhancing the level of safety and health, adding that citizens of Icheon would enjoy benefit in terms of safety and health through this MOU.



President of KOSHA(4th from the left, 1st row)

Stop suffocation

Recent series of suffocation cases in the hog farms raise concern over workers in the stock breeding industry especially during the summer. In Yang-ju, Gyung-gi province, two workers who were cleaning septic tanks in the farm were suffocated to die on April 22. After this, another three workers were also dead for the same reason, on May 4.

In the monsoon season, it is likely that bacteria propagate speedily in the confined space and high temperature makes workers there take a casual attitude to the danger both of which lead to cause suffocation. swine feces in the septic tank generate one of hazardous gases: hydrogen sulfide which can kill a person once he or she inhales it only a few times Recent series of suffocation cases in the hog farms raise concern over workers in the stock breeding industry especially during the summer. In Yang-ju, Gyung-gi province, two workers who were cleaning septic tanks in the farm were suffocated to die on April 22. After this, another three workers were also dead for the same reason, on May 4.

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Suffocation accident cases in the recent five years are on the rise because of lack of awareness on toxicity of the substance as well



as suffocation itself. the number of fatal suffocation cases in the hog farming industry was 14 over the past five years among which many were dead while rescuing victims without safety equipment. In that sense, president Hun-ki Baek of KOSHA decided to move to lower the accidents by cooperating with the related industry, and signed Memorandum of Understanding with Byung-mo Lee, president of Korea Pork Producers Association, on June 18.

KOSHA would give intensive support to around 4,500 farms registered to the association to prevent accidents of workers in the hog farming industry. the support includes: training of farmers by regions on possibility of suffocation and how to deal with it; technical training on the field; rental services for safety equipment such as ventilation fan, air-supplied respirators and gas concentration gauge which are used for repairing and cleaning the septic tank. other programs would also be delivered to prevent poisoning of pesticides and musculoskeletal disorders of workers as they are usually dealing with heavy stuff. Meanwhile, KOSHA set July through August as the period to focus on preventing suffocation in the confined spaces. The agency also issued alerts in the hazardous places in terms of suffocation. A person from KOSHA said that suffocation could even kill workers. Still, however, many workers are lack of awareness, adding that we should pay more attention to prevent this type of accidents and encouraging workers in the hog farming industry to make sure ventilation, measuring of the hazardous gas and wearing of protective equipment.

Level up the safety and health for workers at hotels

President Hun-ki Baek of KOSHA signed MOU on creating safe and pleasant hotel with his counterpart at Lotte Hotel located in Jung-gu, Seoul on Tuesday May 28. Hotel Lotte Co., Ltd., signed the MOU to support its partners: chains of Lotte Hotel and some 50 partner companies, in the atmosphere where large corporations are required to come up with prevention measures for their partners. with the MOU, Hotel Lotte will focus preventing injuries and promoting health of workers involved in cleaning the building and hotel rooms, laundry, maintenance of facilities and car parking.

to that end, KOSHA gives assistance to the Hotel Lotte in: developing risk assessment model; setting up joint programs for the headquarters and its partners; supporting OSH technology; carrying out joint campaigns, 'safety commitment' to reduce injuries. President Baek said "I hope this MOU will help hotels put workers health on their top priority which finally leads to the best service for the customers of the hotels as well" expressing his determination to advance the level of OSH in the hotel industry.



President Baek of KOSHA(5th from the left, first row) is taking a photo with his counterpart, Mr. Song (4th from the left, first row) after signing MOU.



President Baek of KOSHA is taking a photo with his counterpart, Mr. Song.

Fill up the safety of gas station

KOSHA now supports gas stations to prevent injuries and boost safety of the facilities there. President Hun-ki Baek signed MOU with president Moon-sik Kim of KOSA (Korea Oil Station Association) on May 22 for creating safe and clean gas stations.

The MOU was signed in the building of KOSA located in Ban-po, Seoul and both parties agreed to focus on preventing fire and explosion, collisions of cars, crushes in the car washer and boosting health of workers in the gas station. In November 2012, an accident occurred in a gas station located in Geo-yeo, Seoul, burned two workers who were cleaning the tank truck in the basement.



President Baek(4th from the left) is taking a photo with related people after signing MOU with KOSA

Also, in 2011, fire and explosion in another gas station killed four who were washing their cars and hurted three. Leak of the oil mist is suspected to be the cause of the accident. On the same day, oil mist leaked and two were injured due to following fire and explosion in a gas station located in Hwa-sung. These accidents led to encourage KOSHA to enhance safety of facilities in the gas station which are widely exposed to dangers of fire and explosion, and promote health of workers there through the MOU. According to the MOU, KOSHA will implement prevention activities for around 13,000 gas stations nationwide, the members of KOSA. Major prevention activities are: supporting risk assessment and consulting; financial assistance for improving work environment; developing and distributing OSH materials; carrying out prevention campaigns; assisting specific medical check-up of workers in the gas station. President Baek said that recent series of fires and explosions show the importance of prevention, adding that he expects this MOU will serve as an opportunity to secure safety of filling up facilities and protect health of workers in the gas stations.

Occupational Health

Workers' medical center opens in Ulsan and Bucheon

Medical center that cares workers' health in Ulsan and Bucheon to provide health care programs and help the workers prevent occupational illnesses, free of charge. President Hun-ki Baek joined the opening ceremony of the center located in Dong-gu, Ulsan and Ojeong-gu in Bucheon, Gyeonggi province on May 15 and May 20, respectively.

Each medical center would serve workers working at small-sized workplaces in Mipo Industrial Complex and Bucheon Industrial Complex. Major services are: consulting on occupational diseases and work-related stress; assessing job suitability; dealing with musculoskeletal disorders, provided by psychology counselors, nurses, occupational physicians, occupational hygiene experts and physical therapists.

The first Workers' Medical Center opened Siheung in 2008 followed by Incheon, Gwangju, Daegu and Gangwon in a row. The number of centers will reach 10 as 5 more have opened this year alone including the Ulsan and Bucheon centers. A person related in KOSHA said "As many of the Workers' Medical Centers open in industrial complexes, they would give better access for workers in workplaces less than fifty workers who do not have enough time and money to take care of themselves."



President Baek (4th from the left) is cutting ribbon to celebrate Ulsan Workers' Medical Center.



President Baek (8th from the left) posed for a picture at the ribbon cutting ceremony of the Bucheon Workers' Medical Center.

KOSHA Helps

Intensive check on construction sectors in Jeju Island

President Hun-ki Baek pursues field-oriented management in an effort to reduce accidents in the construction sector



President Baek is taking about prevention methods in the construction sector, Jeju Island.

especially in Jeju Islands. Intensive safety and health interventions are required as the construction is booming with increasing demand for tourism accommodations and new apartment complex in the island, to be one of the 'innovative cities' in Korea.

In that sense, president Baek visited Jeju island to look around safety and health level in the construction sectors. In particular, he checked OSH interventions against fall accidents in the construction field for the housing zone development. Following the visit, he had a meeting with representatives from construction companies, and hotel construction and safety managers to discuss difficulties in pursuing workers' safety. President Baek said that it is easy to witness accidents for the construction sector in the summer with lax attitude toward discipline or potential risks, adding that managers as well as general contractors should pay more attention to workers' safety and health, and whether they stick to safety guidelines.

KOSHA intensifies prevention efforts for chemical plants



President Baek (6th from the left) is taking a photo after signing the MOU

KOSHA speeds up its multifaceted efforts to prevent serious accidents which have been on the rise since last year in the chemical plants. President Hun-ki Baek of KOSHA signed Memorandum of Understanding on preventing fires and explosions in the chemical industry, with Mr. Lee, president of Korea Fire Protection Association, on July 9. According to the result of analysis on occupational accidents statistics by KOSHA, the number of victims from fires and explosions in the industry over the last three years is 2,334 and it was 820 last year alone.

In that sense, KOSHA decided to work with the Association and provide joint activities: finding out

cause of fires and explosions; training of workers on prevention; conducting researches on accident cases; giving safety inspection services to chemical companies. This signing of MOU was followed by previous MOUs with five associations: The Korean Society of Safety; The Society of Air-conditioning and Refrigerating Engineers of Korea; Korean Society of Occupational & Environmental Medicine; Korean Industrial Hygiene Association; Ergonomics

Society of Korea, signed under the purpose of coming up with interventions to prevent chemical leaks and explosions with experts in the academia. Meanwhile KOSHA has recently developed and provided prevention manuals against black out in the chemical plants as power supply is unstable with soaring demand in the summer. Unexpected blackout in the chemical plants stops controlling system for risky facilities and have pumps malfunction which can lead to leaks of dangerous chemical materials. A person from KOSHA said that fires and explosions in the chemical plants not only affect workers there but residents living near the plant, putting emphasis on KOSHA's strong commitment on preventing accidents through thorough risk assessment for all the processes that deal with chemical materials.

OSH Materials for migrant workers

<Accident case 1>

In December 2012, one Indonesian migrant worker, 25, at a car parts manufacturer in Gyeongsan-si, Gyeongsangbukdo made a mistake with pressing machine and had his left hand crushed by a press die.

<Accident case 2>

In January 2013, one Vietnamese migrant worker, 24, at a food company in Jincheon-gun, Chungchungbuk-do had her right thumb and index finger crushed, while cleaning a rotary cutter, as the cutter was accidently turned on.

OSH materials will be provided for migrant workers who are more exposed to industrial accidents due to unfamiliar and poor work environment and language barriers. More than 6,000 migrant workers, usually working in the production or service industry or as a simple laborer, are victimized by occupational accidents annually due to difficult and poor work environment and language barriers. According to the statistics, 6,404 migrant workers had occupational accidents and 106 of them lost their lives in last year alone.

Туре	Sum	2012	2011	2010	2009	2008
Total victims	28,967	6,404	6,509	5,599	5,233	5,222
The dead	513	106	103	92	98	114

*** Migrant workers' occupational accidents for the past five years (unit: No. of ppl)**

※ No. of total victims = No. of ppl injured + No. of ppl dead

Against this backdrop, KOSHA provides safety materials for businesses to post and give training with in 13 languages including Chinese, Vietnamese, and Cambodian.

- · 13 languages : Chinese, Indonesian, Pilipino(English), Vietnamese, Thai, Bangladeshi, Uzbek, Mon golian, Pakistani, Sri Lankan, Cambodian, Myanmarese, Nepali
- Warning or safety stickers and posters can be posted at dangerous sites or equipment.
- Safety training DVDs and other materials are to teach migrant workers about the risks of crush, fall, and electrocution and safe work procedures.
- All materials are both in Korean and targeted foreign language so that both migrant workers and Korean counterparts can understand.

KOSHA will provide these materials for migrant workers' support groups and businesses that hire migrant workers when it gives technical assistance to them.

- The materials are also available on the KOSHA web page

(www. kosha.or.kr ► OSH Information for Migrant Workers) for easy access. One official from KOSHA said, "Together with these materials, translation application for ten languages KOSHA is distributing can hopefully play an effective role in preventing occupational accidents of migrant workers."

New Trend

Smartphone, new guardian for chemical factory

Amid a series of accidents during repair or maintenance work at chemical factories in the first half of this year, information about safe work process has become available in real time on smartphones to safety supervisors and workers.

KOSHA has recently developed and released AppBook, e-book for smartphones or tablet computers, which provides information about must-follow safety measures during maintenance or repair work at chemical factories.

The AppBook is unique in that safety supervisors or workers can have a real time access to the information according to the different stages of repair or maintenance work.

- Key information includes "Safety measures before start-up," "Checklist for purging," "Measurement of gas leakage," and "Safe way to insert or remove blind flange."
- The AppBook divides maintenance and repair work into three groups . hot work in silo, check before start-up, and shut-down inspection of dangerous substance storage tank . and a checklist for each group is given.
- The AppBook also provides causes of fire, explosion, and gas leakage at chemical factories and their countermeasures to help design plans to prevent similar accidents.

For further information, you can download "Knowledge repositories (Jisikchoongjunso)" from Android's Play Store or Apples' App Store onto smartphones and see "Safety measures during maintenance and repair work at chemical factories."

- You can also download the pdf file from Media Bank section in KOSHA's homepage (www.kosha.or.kr).

When	Where	Company	Substance that caused accidents	Cause	Personal injury
Jan 11	Jeonju	Miwon Commercial	Inflammable vapor	Explosion of centrifuge due to inflammable vapor	One dead
Jan 12	Sangju	Woongjin Polysilicon	35% hydrochloric acid	Leakage due to pipe rupture	No personal injury
Mar 5	Gumi	Gumi Chemical	Chlorine	Backflow due to breakdown in cleaner equipment	One injured
Mar 14	Yeosu	Daelim	Polyethylene dust and more	Explosion during repair work	Six dead, eleven injured
Mar 25	Hwaseong	Dongjin Semichem	Acetic acid	Leakage of acetic acid solution due to damaged temporary wastes container	Two injured
Apr 14	Ulsan	Samsung Fine Chemicals	Chlorine gas	Chlorine gas leakage from FRP connecting to scrubber	Six mildly injured

* List of accidents at chemical factories in the first half of 2013

KOSHA is currently distributing a manual for preventing blackouts at chemical factories amid unstable power supply in summer to prevent chemical accidents and is trying to intensify preventive efforts by signing MOUs on chemical accidents prevention with five societies including Korea Safety Society. One official from KOSHA said, "Business owners and workers are the ones who know best about on-site problems and risk factors." "Hopefully the AppBook can help identify and eliminate risk factors at chemical factories beforehand to stop ever-occurring chemical accidents," the official added.

Smart construction sites

QR codes have come to play a role in reducing accidents in construction sites.

- Quick Response or QR code is, unlike the barcode that contains only limited information, is a new code system that provides greater information with a simple scan with smart devices.
- QR codes will provide more detailed information about risk factors and safety measures than simple warning signs like "FALL HAZARD" or "ELECTROCUTION HAZARD" in construction sites.

KOSHA and SK E&C agreed on July 26 to jointly develop QR codes to prevent accidents in construction sites.

- Signing ceremony
- when: July 26 2013, 11:00 . 13:00
- where: conference room in SK E&C headquarters in Seoul
- attended by: KOSHA President Baek Hun-ki, SK E&C president Cho Ki-haeng and more

Under this agreement, KOSHA and SK E&C will jointly set up countermeasures against major risk factors in construction sites for which QR code stickers will be distributed.

- QR code stickers to be posted by current warning signs can play an effective role in helping safety supervisors provide necessary information to workers quickly and workers see risk factors in the construction sites.
- QR code map to be posted at the entrance of construction sites will serve as a map of risk factors in each site for supervisors and workers to see all risk factors in one glance.

KOSHA and SK E&C plan to develop 100 types of QR codes within this year to be posted first in SK E&C's and its suppliers' construction sites as a trial basis and warning signs with these codes will be later distributed to other construction companies. They will be also available on KOSHA homepage.

President of KOSHA Baek Hun-ki during a signing ceremony said, "KOSHA is distributing a translation application for migrant workers and a news application tracking occupational accidents in a real time basis. Other applications about weather-related OSH information and safety standards will be also developed for businesses."



One example of the warning signs with QR code