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Occupational Safety and Health Administration, Ministry of Labor, Taiwan, R.O.C.

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Having lived through 2020,.... we stand stronger than ever

The year 2020 was a tumultuous and difficult one for most of us. With the raid of Covid-19 pandemic globally, in no time we at the Occupational Safety and Health Administration (OSHA), facing the predicaments that many workplaces and jobs were critically affected. We had to work out how to intensify worker's protections and resilience to overcome the impacts. I and my colleagues have kept asking ourselves: "One day when the year of 2020 is recalled, did we do enough in combating this unprecedented challenges?"

In response, there had to be significant adjustments and new measures to the

common ways of labor inspections, educational campaigns, guidance assistance, and partnership relations with all stakeholders. In order to assist enterprises to continue strengthening occupational safety and health (OSH) promotion during the pandemic, OSHA committed all efforts to safeguard safety and health of workplaces without compromising.

We paved the common ground for protecting all workers, guidelines for safety and health protection measures against Covid-19 were put in place to allow for workers' immediate protection under employer's prompt management. Typical attention was paid to the emerging platform worker suddenly in most needs, a key guidance for protecting food delivery personnel was adopted to protect their safety and health during the life-style change pandemic.



Special guidance and coaching programs were dispatched for high exposure risk industries and workplace protection, such as high-tech manufacturing factories, care-giving institutions, wholesale chain stores, and large-scale food chains. We mapped out and implemented special guidance to assure their essential service in operation and epidemic prevention. Particularly for protecting migrant workers, OSHA launched special guidance programs for managing their division and displacement to ensure that their safety and work rights during the crisis.

In order to help various domestic enterprises most affected by the pandemic, OSHA adopted guidance and provided subsidies for improving their OSH facilities and promotion to advanced their resilience against emerging occupational hazards including chemicals, mechanical, biological, ergonomics, and psychological hazards to workers in needs. Over the past year, Taiwan's COVID-19 epidemic prevention work has been maintained effectively. Educations and training sections to upgrade workplace OSH practices were not deferred from the pandemic influence too much. Large-scale enterprise and SMEs were benefited from OSHA's versatile programs and onsite coaching assistances extensively.

We also found ways to continue international cooperation with alternative matters suitable. OSHA managed to participate in the World Congress on Safety COVID-19 and OSH special online conference to share Taiwan's policies on the prevention of occupational accidents and rehabilitation of injured or ill workers. OSHA also co-hosted the very first Taiwan-UK Summit with the UK's Health and Safety Executive, signing a cooperation MOU and acknowledging selected topics of future bilateral cooperation. In the 2020 APEC Meeting, Taiwan shared best practices of workplace chemical management as part of our international contributions.

In the wake of recent expansion of business investment by international and Taiwanese enterprises, local reinvestment boosted significant domestic economic growth and workforce demands. There was outstanding development in many leading business sectors, resulting in a sharp increase of service capabilities and emerging types of work. The challenges are unprecedented to best manage emerging workplace OSH toward a higher standard.

Thanks to the cooperation between the central and local governments, the efforts of all stakeholders and citizens, the overall occupational accident rate remained stable in 2020. I would like to offer my heartfelt gratitude to all OSH and labor inspection partners to make this possible and continue efforts of instilling OSH culture among all workers.

Having lived through 2020, we could have done more, yet, we stand stronger than ever. OSHA is committed to continue integrating resources and capabilities of industry, government, and academia to promote workers' health and safety, through modernizing policy schemes, adopting digital technology leading to a new era. As envisioned an enjoyable safer and healthier working environment, together we are committed to enable every worker in Taiwan to exercise their talents without worries.

Director General

Tru-Lien Trou

OSHA, MOL, Republic of China (Taiwan)



Vision and Mission

n 1966 the United Nations adopted the International Covenant on Economic, Social, and Cultural Rights, which states that every individual is entitled to a safe and healthy work environment. Taiwan signed and adopted the Covenant in 2009 and has been promoting its implementation since then. Also, Taiwan is facing the state of becoming an aged society and having a low birthrate. Through a comprehensive regulatory framework, Taiwan is pro-actively addressing the problem of OSH rights for vulnerable workers and is forming a complete occupational protection net.

In order to put into practice the vision of "providing every worker with a safe, healthy, and decent workplace" and "building a sound system of diagnosis, compensation, and rehabilitation for occupational accidents and illness," and to comply with the Ministry of Labor's policies of "safe work," "safe workplace," and "safe labor," the OSHA has laid out the following policy objectives:

- Continue to reduce the rate of occupational accidents and illness, ensure protection for worker basic rights.
- (2) Assist industry to manage risks of occupational hazards, promote economic development and growth.
- (3) Ensure a decent work environment that protects workers' rights and physical and mental health, as well as upgrades national competitiveness.
- (4) Build a sound diagnosis, compensation, and rehabilitation system for victims of occupational accidents and illness, protect the vulnerable and ensure respect for workers' rights.
- (5) Strengthen occupational safety and health and build a basic infrastructure for rehabilitation of injured or sick workers in line with international standards.





Overview of the Development of Occupational Safety and Health throughout 2020

Concurring unprecedented challenges posed by the pandemic; building a sturdy support system for all workers.

hroughout 2020 Taiwan dealt with the COVID-19 pandemic that spread worldwide, making it an extremely challenging year for securing occupational safety and health (OSH). In order to protect the lives of workers during the epidemic, OSHA implemented the "Guidelines for Workplace Safety and Health Protection Measures in Response to COVID-19." OSHA assisted enterprises to implement laws and regulations related to OSH, strengthened prevention against exposure to biological hazards in the workplace, and promoted six subsidy programs including one to assist enterprises to improve manufacturing process safety, thereby helping enterprises to improve OSH during the pandemic. In addition, to learn from the experience of other countries, in 2020 OSHA proactively participated in online conferences like that on "COVID-19 and OSH" held by the World Congress on Safety and Health at Work. Leading officials from the Occupational Hygiene and Health Division and the Occupational Accident Labor Protection Division participated in the online discussions, thereby engaging in international exchanges on matters like prevention of workplace accidents and illness and occupational rehabilitation.

In response to the rise of the "stayat-home economy" including online purchasing of food to be delivered, OSHA adopted the "Key Guidance of Epidemic Prevention for Food Delivery Personnel," reminding delivery personnel to devote attention to epidemic prevention and operational safety.



OSHA Director-General Tsou Tzu-Lien in a video conference with Sarah Albon, Chief Executive of the UK's Health and Safety Executive.



Using technology for smart occupational hazard prevention



Since being founded in 2014, OSHA has been pro-actively promoting all manner of OSH tasks and issued the "Mid-term and Long-term National OSH Improvement Plan." In 2018, the "Program for Safety Supervision in Offshore Wind Farm Operations" and the "Mid-term and Long-term Smart Industry Safety and Health

Program." were launched sequentially. In addition, in order to better use information technology for accident prevention, in 2020 OSHA initiated the "National OSH Capacity Development Program," in order to comprehensively cultivate a culture of "safe work and healthy workplaces."



OSHA announced the use of unmanned aerial vehicles (drones) for inspections at construction sites.

Overview of the Development of Occupational Safety and Health throughout 2020





Major plans promoted by OSHA in recent years.

In response to new-era technological developments, OSH work will steadily incorporate new technology and an "OSH Intelligent Cloud" is being developed. Through unmanned aerial vehicles (drones), safety management at construction sites is being strengthened, with photographs being used to determine whether workers are wearing proper safety equipment and their secured locations, as well as whether operational behavior is safe, to detect problems like lack of concentration and long hours. Labor inspection technology is being more broadly applied to ensure workers' safety in high-risk operations.



1. Risk Banding Management

n 2020 OSHA class the industries construction, manu actur wholesale and ret iil sale transport and warehousing accommodations and food and beverage, as well as workers

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without fixed employers as the "industries/persons at high risk." OSHA gave priority to focusing on accidents such as cutting, shearing, rotating, entanglement, falling down, falling from a height, and tumbling down.

OSHA adopted a risk banding management scheme depending on the risks in each enterprise, as follows:

- (1) For enterprises with excellent trackrecords of occupational safety and health (OSH) performance: OSHA mainly used site visits and oversight mechanisms for businesses that practice self-regulatory management, and held coaching, hands-on learning, and experience sharing activities to assist organizations with outstanding OSH records to become "role-model enterprises."
- (2) For enterprises of high risks: For enterprises with a high rate of noncompliance, high risks, and a high incidence of occupational accidents, OSHA gave priority to inspections and implemented follow-up measures for improvement, to ensure their compliance with laws and regulations. (Note that the term "accidents" includes both injury and illness.)
- (3) For small and medium sized enterprises (SMEs): OSHA provided SMEs with assistance that includes education

and training, site visits, guidance, consultations, and hands-on learning. Also, through services and resources like OSH Families, promotion associations, and big factories guiding small factories, the conditions of OSH management at SMEs were significantly upgraded.

From 2010 through 2020, the rate of payments under Labor Insurance for occupational accidents per 1000 workers showed an overall downward trend. Thanks to the efforts of the central and local governments as well as all stakeholders, the rate of payments under Labor Insurance for occupational accidents per 1000 workers fell to 2.549 (see Figure 1-1), a decline of 20.3% compared to an average of 3.199 for the years 2014 through 2016.

In addition, labor inspection institutions conducted on-site OSH supervision and inspections a total of 146,828 visits, offered 1,031 OSH educational activities, and provided guidance in 4,833 cases. With these actions they ensured that enterprises implemented workplace OSH management adequately.



(Rate per 1000 workers)

Figure 1-1 Trends in rates of occupational injuries and illness.

2. Occupational Safety Management

he work of preventing workplace accidents must be conducted through multiple approaches. The Occupational Safety and Health Administration (OSHA) uses education, guidance, inspections, and subsidies to ensure workers' safety.

Major actions in 2020 included:

- Based on the "Occupational Safety and Health Act," OSHA implemented source management of machinery and equipment.
- (2) OSHA held practical hand-on guidance events and technical exchanges to improve labor supervisory management capabilities and upgrade selfmanagement at enterprises, and assisted newly emerging industries to enhance their accident-prevention facilities.
- (3) OSHA assisted small and medium sized enterprises to improve their work environments, with on-site and customized guidance methods to improve enterprises' acknowledge of how to improve safety and health at workplaces.
- (4) OSHA promoted the Taiwan Occupational Safety and Health Card (TOSHC) system to avoid redundant training, and implemented joint supervision and inspections at major public infrastructure projects, encouraging construction units to implement OSH management.

2-1 Safety Management of Machinery, Equipment, and Tools

o ensure the safety of workers in the workplace, starting in 2015 Taiwan promoted the "Registration System of Safety Information for Machinery, Equipment, and Tools" for ten designated types of machinery, equipment, and tools. Two additional types were added in 2019: nonnumerically controlled traditional lathes and milling/boring machines. It is anticipated that in 2023 the system will be applied to numerically controlled lathes and milling/ boring machines, as well as machining centers and transfer machines. For all the above types of machinery, manufacturers or importers are required to register machines that conform to safety standards on the Information Reporting Website and to put a TS Safety Label in a prominent place on the device itself. In addition, in 2018 OSHA launched the Type Certification Scheme for designated machinery, equipment, and tools. With respect to domestically

Type of machinery, equipment, or tool	Year of implementation
Power driven punching-shearing machinery, Hand-feed planers, Woodworking circular saw machinery, Power-driven forklift trucks, Grinding machinery, Grinding wheels, Explosion-proof electrical equipment, Photoelectric-type safety devices for power-driven punching-shearing machinery, Blade shields for hand-feed planers, Kickback prevention devices and saw-tooth shields for woodworking circular saw machinery	2015
Non-numerically controlled traditional lathes	2019
Non-numerically controlled traditional milling/boring machines	2019

Table 2-1 Machinery, equipment, and tools included in the "Registration System of Safety Information" as of the end of 2020.





Figure 2-1 An verifier undertakes "type certification" of a forklift.

manufactured or imported voltage reducing devices for AC arc welding equipment, in cases in which these devices have not passed type certification conducted by an approved certification body and/or do not have certification marks that they have received, the manufacturer (or importer) will not be allowed to ship the equipment (or import it).

In order to implement source safety management of the above-mentioned machinery, equipment, and tools, in 2020 OSHA conducted reviews of 7,475 registration documents submitted by 582 companies, and inventoried and conducted sample testing of 1,109 designated machines and equipment at 722 companies. OSHA also guided manufacturing enterprises of high risks, and that have a high rate of occupational accidents and a high rate of noncompliance, to build automated safe production lines, and assisted them to introduce inherently safe machinery design, in order to eliminate hazard factors at the system level.





2-2 Safety Management in Newly Emerging Industries

n response to the rapid advance of smart technology and the problem of a shortage of labor due to population aging, the Executive Yuan has been actively promoting a variety of programs to encourage industries to become more "intelligent," and the development of applying "industrial robots" has become a key area of promotion. There has been a trend for industries to become more intelligent by introducing collaborative robots that operate cooperatively with people. These robots are already being widely used in industries that include semiconductors, printed circuit boards,

electronics assembly, machine tools, and automobiles.

To prevent potential hazards from the rapid development of collaborative robots, in 2018 OSHA amended the "Standards for Hazard Prevention of Industrial Robot," adding a provision that employers who use collaborative robots must conform to requirements of the National Standards CNS 14490 series, the International Standards ISO 10218 series, or equivalent standards. They must also conduct assessments of relevant data and prepare safety assessment reports.



An automated safe production line.



In addition, the offshore wind power industry is a new kind of industry in Taiwan, and owing to its special working environment its workers face higher risks than do typical workers. In response to the development of the offshore wind power industry in Taiwan and its resulting occupational hazards, OSHA has issued the "Reference Handbook for Essential Data for Supervision and Inspection of Wind Power Enterprises." Also, drawing on the UK's occupational safety and health (OSH) supervision system for offshore wind farms, OSHA has organized a supervisory and inspection team and arranged for members of the team to receive specialized training from the Global Wind Organization (GWO) in two areas: "Working at Heights" and "Sea Survival." OSHA also dispatched team members to participate in three modules of GWO Basic Technical Training: Mechanical, Electrical, and Hydraulic. In 2020 OSHA assigned the team to undertake at-sea

OSH supervision at Taiwan's offshore demonstration wind farm, inspecting the OSH facilities and management situation for wind turbine foundation piles on-site.



OSHA inspectors put to sea to undertake supervision and inspection of OSH.



At-sea assembly of jacket foundations.



2-3 Guiding Small and Medium Sized Enterprises to Improve Their Working Environments

ata from the last three years indicates that small and medium sized enterprises (SMEs) employ 78.5% of all employed persons in Taiwan and make an outstanding contribution to Taiwan's economic development. However, SMEs typically have fewer financial and material resources and expert personnel than large enterprises, and are relatively lacking in knowledge about OSH risks and prevention facilities. This results in SMEs having a higher incidence of occupational accidents. To help them improve their working environments, OSHA uses multiple methods to deal with the symptoms and sources of OSH management problems at SMEs.

Compared to large enterprises, SMEs are typically lacking in resources and knowledge, but they can greatly increase OSH knowledge and capabilities with help from localities. In 2020 OSHA continued to promote the "Ministry of Labor Subsidizing Plan for Local Governments Involving in Promotion of Guiding and Improving Working Environments for Small and Medium-sized Enterprises," providing subsidies to assist local government to employ professional OSH engineers and form supporting teams from OSH experts recruited from local businesses or retired personnel to provide on-site guidance to SMEs.

In addition, OSHA works through collaboration of local enterprises with outstanding OSH performance, engaging large enterprises to guide small ones and pass along their experience. Also, OSHA



An OSH expert offers precise instructions on how to properly wear safety helmets.

regularly invites local SMEs to hold activities like practical lectures, hands-on visits, and technical guidance to improve OSH in their working environments. From 2018 through 2020 OSHA organized 55 OSH Families, with a significant reduction in occupational accidents at OSH Families that had received guidance.

The successful implementation of OSH in the workplace highly depends on SMEs' management level and vigilance by workers themselves. This is why in 2020 OSHA printed and distributed OSH hazardprevention educational information such as brochures, slogans, and posters, as well as warning label stickers for common factory, construction, and service sectors. Moreover, OSHA sends out monthly e-newsletters to remind everyone to pay constant attention to OSH in the workplace.





2-4 Safety Management in the Construction Industry

he construction industry has worksites with high risks, so it is necessary to upgrade the ability of construction workers to recognize hazards and to strengthen access control management to reduce the incidence of occupational accidents. Therefore, each site must offer new workers six hours of general OSH training. However, the common practice of the construction industry is characterized by layers of subcontracting, with many temporary workers and high worker turnover. For workers without a fixed employer to have to continually redo the six-hour OSH training not only discourages workers from getting effective training, it also wastes resources and manpower.

Therefore, since 2018 OSHA has been gradually promoting the "Taiwan

Occupational Safety and Health Card" (TOSHC) system under which workers who have undergone general OSH training for the construction industry can, after passing a test, get a TOSHC which records their relevant OSH training and prevents wasting of resources on redundant training. OSHA has adopted a two-track system: On one hand it provides for labor inspection institutions to train instructors and produce uniform teaching materials for use by training institution units, to ensure the quality of training. On the other hand OSHA has strengthened education and guidance to encourage the construction industry to arrange for TOSHC training to cultivate outstanding human resources for the whole industry.



Website of the Taiwan Occupational Safety and Health Card.



In addition, to ensure construction site safety, OSHA has undertaken joint accidentreduction supervision and guidance at major public infrastructure projects to encourage the agency in charge of the project, the unit in charge of construction, and all the contractors to actively implement OSH management. In 2020 Ministry of Labor Deputy Minister Wang An-Pang and OSHA Director-General Tzou TzuLien met with local governments for joint accident-reduction supervision at major public infrastructure projects, to check possible shortcomings in workplace OSH facilities. Agencies in charge of projects were required to supervise contractors in strengthening safety management, assist enterprises in actively implementing OSH self-management, and maintain the safety of workers at public infrastructure projects.



On-site inspection at a Mass Rapid Transit system job site.



On-site inspection at a new construction site.

n recent years, society has increasingly devoted attention to physical and mental health issues among workers arising from the low birthrate and aging of the workforce. With respect to these issues, OSHA has continued to use multiple strategies, including laws and regulations, education and guidance, subsidies, and supervision and inspections, to assist employers to improve workplace environments, prevent occupational illnesses and injuries, and put into practice labor health check-ups and protection of workers' physical and mental health.

It should be noted that when the COVID-19 pandemic spread across the globe in early 2020, OSHA responded pro-actively. In coordination with epidemicprevention strategies of the Central Epidemic Command Center, OSHA adopted workplace epidemicprevention guidelines, planned and guided implementation of measures based on risks at various enterprises, strengthened the risk management and response mechanism, and fully implemented workplace epidemic prevention, all to ensure workers' health.



3-1 Chemicals Management Harmonized with International Standards

n order to align with international trends in chemicals management, enhance chemicals management effectiveness in domestic factories, and ensure the safety of workers using chemicals, OSHA has taken into account the methods used by international organizations and advanced countries and adopted two major strategies: "Chemicals Source Management" and "Priority Management." (See Figure 3-1.) In terms of source management, OSHA requires approval, registration, and management of new chemicals, requiring upstream firms (manufacturers and importers) by law to submit "Chemical Safety Reports." Through reports by firms or the evaluation mechanism for approval and registration, OSHA can fully understand the hazard of chemicals in workplaces, and, based on an evaluation of the exposure risk for workers, adopt appropriate priority management strategies, to keep track of the sourcing and dissemination of new chemicals in Taiwan.



Safety evaluations of chemical materials

Figure 3-1 Framework for risk management of chemicals at the source.





Moreover, Taiwan is staying in close step with the international community: In harmonization with the "Globally Harmonized System of Classification and Labeling of Chemicals" (GHS) being promoted by the United Nations, OSHA issued the "Regulations for the Labeling and Hazard Communication of Hazardous Chemicals." It requires manufacturers, importers, suppliers, and employers to provide "Safety Data Sheets" (SDSs) and labels and to adopt hazard communication measures with respect to hazardous chemicals. In order to assist employers to comply with the law, OSHA also offers chemicals management education and training. In 2020, 15 sessions were held with 1,227 participants.

In addition, with reference to international chemical contol banding

management mechanisms, OSHA requires employers to adopt risk banding measures for hazardous chemicals with health hazard based on level of exposure risk. With particular regard to high exposure risk chemicals (including ones that are carcinogenic, mutagenic, or toxic for reproduction), OSHA has a permit system for controlled chemicals to protect the health of workers. For this purpose, OSHA has desginated 1,173 priority management chemicals and 23 controlled chemicals, and requires firms that use them to implement annual reporting and approval mechanisms. In 2020, OSHA received a total of over 135,069 entries of reporting (including about 30,000 entries on chemicals that are carcinogenic, mutagenic, or toxic for reproduction) from over 4,954 workplace locations using priority management or controlled chemicals.



Figure 3-2 "Single Portal for Workplace Chemical Management" website.



Setting up of a shaded area at a high-temperature outdoor workplace.

3-2 Promotion of Heat Stress Prevention and Respiratory Protection

Gobal warming has led to the frequent occurrence of extreme weather, and annual average temperatures have been climbing. Taiwan, located in the subtropics, is especially susceptible to heat waves. Workers who routinely work outdoors, such as in construction, road repair, utility pole maintenance, and agriculture, are consequently at increased risk of heatrelated disorders, and the number of cases of such disorders has risen every year.

OSHA has actively guided enterprises doing outdoor work to adopt heat stress prevention measures to enhance protection of the health of outdoor workers and build a worry-free work environment. In 2020, OSHA conducted 10,339 supervision and inspection actions overall. OSHA also has established the "Mobile Information Network for Heat Stress Prevention in High Temperature Outdoor Operations" which allows both enterprises and workers to access heat stress information via a mobile devices app to make evaluations and adopt necessary prevention measures.

In addition, to enable workers to correctly and effectively use respirators since July of 2020 OSHA has required enterprises with 200 or more workers to adopt and ensure implementation of respiratory protection programs. To assist employers to promote such programs, OSHA has issued the "Technical Reference Handbook for Respiratory Protection Programs" and set up a special section for respiratory protection on its website to provide detailed educational material and flashcards. OSHA has also offered 23 sessions of relevant education and training, made guidance visits to 15 locations, held hands-on demonstration events three times, and produced two educational and training videos: one on wearing of respiratory protective equipment and the other on testing of it.





Respiratory protection program has been implemented since 2020.

3-3 Rapid Response to the COVID-19 Pandemic to Prevent Workplace Transmissions

n 2020, faced with the COVID-19 pandemic, on January 31 OSHA promptly announced the "Guidelines for Workplace Health and Safety Protection Measures in Response to COVID-19." These provide widely applicable directions for workplace epidemic prevention, reminding employers and workers to identify possible hazards in the work environment or operations. Industries were instructed to conduct risk evaluations followed by adopting appropriate control measures based on the evaluations, to effectively prevent the spread of the disease. In addition, in response to the rapid increase in demand for food delivery during the pandemic, OSHA adopted the "Key Guidance of Epidemic Prevention for Food Delivery Personnel," to protect the safety and health of delivery personnel when at work.

In the first half of 2020 the epidemic worsened in Taiwan, dramatically and

adversely affecting a variety of businesses and occupations. OSHA implemented customized epidemic-prevention guidance programs on 300 occasions for workplaces or industries with higher risk of exposure, including high-tech factories, care-giving institutions, chain stores, large-scale food chains, cleaning services, and the waste disposal industry. By last autumn, the international epidemic situation was becoming more severe, so OSHA immediately adopted stricter epidemicprevention measures. In coordination with the Autumn-winter Epidemic-Prevention Plan issued by the Central Epidemic Control Center, in December OSHA issued a letter to all labor inspection organizations to conduct workplace epidemic-prevention guidance while doing labor inspections. OSHA also conducted customized inspections and guidance for high-risk enterprises including care-giving



institutions, chain stores, large-scale food chains, cleaning services industry, the waste disposal industry, animal slaughtering, food processing, and enterprises that employed large numbers of foreign migrant workers, in order to assist employers to fully implement epidemic-prevention measures.

At large enterprises, it was vitally important for specialists in charge of worker health services and OSH management to appropriately respond to the pandemic and promote workplace safety and health. In 2020 OSHA also launched the "Inspection and Guidance Program for Workplace Safety and Health at Enterprises in Response to COVID-19," in order to reduce the risk of workplace infection and protect the health of workers. Labor inspection institutions reviewed and approved epidemic-prevention work at 2,296 companies, making on-site visits to 294. Over 90% of enterprises adopted epidemicprevention programs, of which over 98.5% offered epidemic-prevention educational measures at the workplace.

Following the incidents of cluster infections among foreign migrant workers in Singapore and elsewhere, OSHA, in coordination with the general epidemicprevention measures of the Central Epidemic Command Center, promoted measures to strengthen epidemicprevention management among migrant labor. Staff from labor inspection institutions conducted workplace epidemicprevention measures and guidance of workforce division management of migrant workers at large enterprises employing 51 or more foreign workers, including 1,007 non-construction companies and 30 construction sites, to ensure that migrant workers did not become a pitfall for epidemic prevention work and to protect the safety and health of all citizens. Moreover, to assist in providing stimulus to domestic enterprises affected adversely by the pandemic, OSHA undertook subsidy measures including subsidies for improving work environments and organized a guidance team to help enterprises to apply. In 2020 OSHA provided NT\$113.68 million in such subsidies to 488 businesses.





3-4 Building a Health Service System to Safeguard Workers' Health

n order to ensure that enterprises employ or contract with medical personnel to provide labor health services and increase coverage of workplace health care, the scale of enterprises required to have inhouse professional medical personnel will move in stages from those with 300 or more workers to those with 50 or more workers. (The requirement went into effect for workplaces with 200 to 299 workers on July 1, 2018, and for workplaces with 100 to 199 workers as of January 1, 2020.)

To assist small and medium sized enterprises (SMEs) to promote protection of labor health, OSHA established Workers' Health Services Centers. Based on the special characteristics and needs of different industries, these Centers conduct on-site guidance for workplace hazard factors assessments, workplace health management, and prevention of work-related diseases. In 2020 the Centers cooperated with local (city and county) governments, labor inspection institutions, labor unions, and industrial parks to provide resident services, providing individual health consultations, guidance, and fitness-for-work evaluations and facilitating workers' access to resources. In 2020 OSHA provided guidance to SMEs on 639 occasions, serving a total of 49,156 workers. At the same time the Centers have cooperated with industrial associations including those for long-term care, precision machinery, and private security to form health promotion partnerships. By bringing together the resources of relevant organizations, providing subsidies, issuing handbooks for labor health services in various industries, holding



A Workers' Health Services Center provides an on-site ergonomics evaluation.

hand-on exhibitions of achievements, and so on, OSHA has assisted industries to improve work environments and build safe workplaces with healthy workers. Thanks to the construction and expansion of labor health services in recent years, the occupational health care coverage rate for workers nationwide rose from 19.67% in 2016 to 50.38% in 2020.

Moreover, OSHA has continued to train specialized medical personnel to expand occupational health services capabilities. From 2011 through 2020, OSHA trained 1,749 doctors and 19,475 nurses to earn qualifications to provide health services. In 2020 OSHA also cooperated with relevant organizations to offer 150 sessions of onthe-job education and training, with 9,097 participants, to help personnel keep their professional abilities up to date and provide optimum health services.



3-5 Guiding Improvement of "3D" Industries for Industrial Sustainability

here are about 58,000 businesses in Taiwan with difficult production processes, most of which are small and medium sized enterprises (SMEs), with annual total production value in excess of NT\$2.9 trillion, and they are a major pillar of Taiwan's economy. As a result of the nature of their production processes or operations, these firms have "3D" (Dirty, Dangerous, and Difficult) work environments characterized by high temperatures, severe noise, and serious contamination. This fact makes most citizens reluctant to work in 3D industries, resulting in problems like longterm labor shortages, inability to pass along skills, and aging of workers.

To help resolve these problems, since 2014 OSHA has successively chosen the foundry, surface treatment, textile printing, dyeing, and finishing, and fabricated rubber products industries for planned guidance and subsidies to improve their 3D work environments. Besides planning and subsidizing the installation of OSH equipment at factories, OSHA listed problems like dirtiness, slipperiness, and darkness of the workplace as items for which subsidies could be provided to optimize the work environment. Also, an inter-ministerial cooperation platform was set up to integrate the subsidies and assistance provided by relevant agencies to provide these industries with maximum support in their transformation. Through cooperative work among industry, government, and academia, including industrial investment, inter-ministerial resources integration, and technical support from scholars and experts, OSHA has assisted these industries to reach diverse goals, including improvement of their work environments, upgrading competitiveness, and encouraging people to work in them. As of the end of 2020, OSHA had provided guidance to 260 firms and subsidized 194 firms in traditional industries to improve their work environments and transform production processes, with subsidies totaling NT\$180 million, and total investment by companies of NT\$2.6 billion.



Minister of Labor Hsu Ming-Chun goes on-site to inspect outcomes in improving work environments.

4. Helping Workers Cope with Occupational Accidents

o protect the rights of workers who suffered occupational accidents, based on the "Act for Protecting Workers after Occupational Accidents" OSHA provides workers (both those covered by Labor Insurance and those who are not) and their families with a variety of living allowances and subsidies. Also, OSHA commissions specialized institutions to provide diagnosis, treatment, and rehabilitation for occupational injuries and disease, to provide comprehensive, integrated services to workers after occupational accidents. (Note that herein "accident" includes both injury and illness.)



By the end of 2020 Taiwan had 10 Occupational Disease and Injury Prevention Service Centers and 88 network hospitals, and subsidized 25 occupational rehabilitation services institutions, to provide workers with easy access to professional services.

In addition, to strengthen proactive services to workers who suffered occupational accidents, OSHA subsidized the labor administration authorities in 19 local governments to promote the "Injured Workers Assistance Program," setting up 53 case managers to provide timely, individualized, and in-depth services to workers and their families after workrelated injuries or illnesses, strengthen referrals to assistance resources, and help workers get through hard times and get restarted.

4-1 Protecting Workers with Professional Medical Service Teams

Dense network coverage to deal with all occupational injuries and illnesses

To protect worker health and the labor force, OSHA has set up Occupational Disease and Injury Prevention Service Centers (ODIPSCs) in northern, central, southern, and eastern Taiwan, covering the entire country. Combined with the occupational medicine departments at hospitals across the country, these constitute an occupational injury and disease prevention network and reporting system. (See Figure 4-1 for the network.) The ODIPSCs and network hospitals are part of a reporting system, and assist in conducting identification and investigations of occupational diseases.

To assist ODIPSCs and enhance their SOPs and service quality, the Occupational Disease and Injury Management Service Center, established in 2007, works to provide workers with more convenient occupational injury and disease diagnosis and treatment services.

ODIPSCs: the front lines of healthy workplaces

Follow the ILO (1964) Convention No. 121 and the United Nations (2006) Convention on the Rights of Persons with Disabilities (CRPD) and other norms. At present ODIPSCs provide the following services:

(1) Diagnosis, prevention, and referral services for occupational injury and disease

Professional medical personnel provide services including diagnosis of cause-andeffect relationships between work and occupational injury or disease, prevention of occupational disease, workplace maternity consultations, and evaluations of burnout from overwork. Also, based on individual needs, they provide case management or return-to-work evaluations, occupational rehabilitation referral, and other services.

- (2) Investigations of occupational exposure and occupational disease
- (3) Occupational injury and disease consultations
- (4) Individual case discussions of occupational disease



Comprehensive services extending to remote areas and fishing harbors

Each ODIPSC is responsible for cooperating with enterprises, government agencies, professional associations, labor unions, and remote communities in their regions to promote prevention of occupational injury and disease. For example, they hold educational events and establish multiple referral channels, in the hope of enhancing the effectiveness of prevention work.

In recent years, in response to various occupational safety and health issues that have gained the attention of the international community and individuals (such as major accidents or asbestosis), ODIPSCs began to work with nongovernmental organizations to go to remote areas (including indigenous communities and offshore islands) and fishing harbors that are relatively lacking in occupational medicine clinical services to undertake mobile diagnosis services and educational activities in the hope of discovering even more potentially exposed workers and providing them with professional protection.



A ODIPSC doctor holding a clinic session.





ODIPSC personnel collect exposure data at a workplace with a suspected case of occupational disease.

Helping Workers Cope with Occupational Accidents



Northern Region ODIPSC

Taipei Veterans General Hospital National Taiwan University Hospital Cheng Gung Memorial Hospital, Linkou **28 network hospitals**

Central Region ODIPSC

China Medical University Hospital Chung Shan Medical University Hospital Changhua Christian Hospital National Taiwan University Hospital, Yunlin Branch 28 network hospitals

Southern Region ODIPSC

Kaohsiung Medical Univers<mark>ity Chung-Ho Memorial</mark> Hospital National Cheng Kung University Hospital

27 network hospitals

Eastern Region ODIPSC

Hualien Tzu Chi Hospital 5 network hospitals

Figure 4-1 Occupational Disease and Injury Prevention Service Centers (ODIPSCs) and network hospitals.



Strengthening referral and reporting schemes to identify more hidden cases of suspected occupational disease

To address the possible underestimating of occupational disease in Taiwan, in 2008 OSHA set up the "Occupational Diseases and Injuries Reporting System," which requires each regional ODIPSC and its network hospitals to carry out reporting. OSHA also has continued to require each ODIPSC to strengthen the reporting and referral system between departments in hospitals to assist network hospitals with reporting matters. The goal is to boost the ratio of findings and reporting of possible occupational injury and disease. Thanks

Clinical sessions

per week

to the long-term efforts of ODIPSCs, the number of reported cases of occupational injury or disease rose steadily from 1,600 in 2008 to an average of over 2,000 per year over the last three years.

Data from 2020 indicates that ODIPSCs offered an average of 292 clinical sessions for occupational injury and disease per week, providing services (including burnout evaluations) for 24,521 visits. (For number of clinical sessions and services provided over the years, see Figure 4-2.) In addition, case management services were provided to 2,757 people, occupational injury and disease consultations to 8,608 people, and referrals to 736 people (12,101 service recipients in total); and among them 875 workers were assisted to return to work.



Service recipients at clinical sessions

Figure 4-2 Occupational injury and disease services provided over the years by health care institutions: Average number of clinical sessions per week and number of service recipient visits.



4-2 Subsidies for Workers Who Have Suffered Occupational Accidents

A fter the "Act for Protecting Worker of Occupational Accidents" entered into effect, workers who suffered from occupational accidents and were covered by Labor Insurance, could, after receiving various types of occupational accident payments under Labor Insurance from the Bureau of Labor Insurance of the Ministry of Labor, apply to OSHA for the occupational disease living allowance, disability living allowance, living allowance for vocational training, device subsidy, care-taking subsidy, and survivors' allowance.

As for employed and self-employed workers who have not joined Labor Insurance, they can also apply for the occupational disease living allowance, disability living allowance, living allowance for vocational training, device subsidy, care-giving subsidy, and family member survivors' allowance. In addition, if employed workers who have not joined Labor Insurance suffer an occupational accident leading to death or to a disability meeting the requirements of Level 1 through 10 in the appendix to the "Labor Insurance Disability Benefit Payment Standards," in cases in which the individual has not received the maximum amount of compensation from the employer, he/ she or survivors may apply for the fatality subsidy or the disability subsidy.

Subsidies of nearly NT\$250 million over the course of 2020; workers not covered by Labor Insurance are also eligible for these subsidies

In 2020, there were 2,857 cases of approved subsidies for workers both covered and not covered by Labor Insurance, with total subsidies of NT\$248,108,487.

In addition, on December 27, 2019 the Taiwan Taipei District Court handed down its decision regarding the compensation that should be given for losses for violation of the rights of the second group of victim workers at the former RCA Taiwan. To respect the decision of the courts, and with reference to the specific cancers and diseases listed in the appendix to the judgment, on May 5 of 2020 OSHA revised the "Subsidy Directions of the Ministry of Labor Handling Former RCA Taiwan Limited Labor Diseased Death," to protect the rights and interests of workers.

In 2020 approval was given in a total of 78 cases, with total funds of NT\$13,673,936.



Pamphlets produced by OSHA to introduce subsidies are made available to citizens and relevant organizations.

4-3 Rehabilitation to Restore the Ability to Work

Rehabilitation subsidies rising annually; return-to-work rate for labor in 2020 was 80%

To help workers who have suffered occupational accidents to return to work, OSHA, acting on the basis of Article 10 of the "Act for Protecting Worker of Occupational Accidents" and the provisions of the "Regulations on Rehabilitation Subsidy for Occupational Accidents Workers," reviews applications from enterprises, occupational training institutions, and related groups to offer occupational rehabilitation services. In 2020 subsidies were approved for 25 organizations to provide services like psychological counseling and social adjustment, ability-to-work evaluations and training, occupational guidance and evaluations, and job accommodation. (For participating organizations, see Figure 4-4.) These organizations offer timely and appropriate assistance to meet the circumstances and needs of workers who have suffered occupational accidents. In 2020, the Program assisted about 675 workers, with subsidies totaling NT\$29.73 million. Thanks to active participation by workers who suffered occupational accidents, the return-to-work rate was reached 80%. See Figure 4-3 for more details.

Systematization of occupational rehabilitation; improving the quality of services

In order to enable every occupational rehabilitation organization to provide uniform services, establish systematized occupational rehabilitation services standards, and upgrade the overall effectiveness of services, OSHA adopted the Occupational Rehabilitation Providers Tutoring Project. Besides promoting rehabilitation services, building uniform service processes, and upgrading the quality of individual case work, the Program



Figure 4-3 Number of cases and amounts of subsidies for workers who have suffered occupational accidents over the years.

Helping Workers Cope with Occupational Accidents

also offers consultation and guidance to service providers and related personnel as well as professional education and training for staff, assisting these organizations to enhance the quality of their rehabilitation services. In 2020, three new organizations were added to provide occupational rehabilitation services, not only increasing service capacity but also facilitating access to services for workers who have suffered occupational accidents.





Strengthening injured workers their work abilities.

- National Taiwan University Hospital (9 network hospitals)
- ☆ ★ Taipei Veterans General Hospital (9 network hospitals)
- ☆★ Shuang Ho Hospital, Ministry of Health and Welfare
 - ★ Sunshine Social Welfare Foundation
 - ★ Cathay General Hospital, Sijhih Branch

☆★ Lotung Poh-Ai Hospital

☆★ Hualien Tzu Chi Hospital (2 network hospitals)

Figure 4-4 Occupational rehabilitation services organizations nationwide.

☆★ Chang Gung Memorial Hospital, Linkou (11 network hospitals)

- ★ Spinal Cord Injury Potential Center, Taoyuan
- ★ National Taiwan University Hospital, Zhudong Branch
- China Medical University Hospital (7 network hospitals)
- ☆ ★ Changhua Christian Hospital (9 network hospitals)
- 🕁 ★ Da Chien General Hospital
- Ational Taiwan University Hospital, Yunlin Branch (4 network hospitals)
- ☆ ★ Chia-Yi Christian Hospital
- ☆★ St. Martin de Porres Hospital
- ☆★ Dalin Tzu Chi Hospital
 - ★ Open Wish Counseling Center
- ☆★ National Cheng Kung University Hospital (14 network hospitals)
- ☆★ Kaohsiung Medical University Chung-Ho Memorial Hospital (12 network hospitals)
- 🕆 🖈 Chi Mei Medical Center
- ☆★ Kaohsiung Chang Gung Memorial Hospital
- ☆★ Kaohsiung Veterans General Hospital
- ☆★ Kaohsiung Municipal Siaogang Hospital



Putting occupational safety and health (OSH) education into practice; assisting workers to prevent accidents

To encourage non-governmental organizations (NGOs) to work together to promote prevention of occupational accidents, OSHA continued in 2020 to subsidize NGOs in holding OSH educational activities, allowing even more workers to receive OSH education needed for their jobs and accident prevention and providing new OSH concepts to reduce the chances of occupational accidents.

In 2020, OSHA, handled occupational accident prevention matters on the basis of the "Act for Protecting Worker of Occupational Accidents," approving subsidies for 20 organizations to offer OSH education sessions. There were a total of 98 sessions with 5,880 participants. Also, OSHA approved subsidies for three organizations to do projects like research on occupational accidents and prevention of occupational disease, with subsidies totaling NT\$7.83

4-4 The Injured Workers Assistance Program

he "Injured Workers Assistance Program" allows for the employment of 53 case managers in 19 local governments to provide in-depth and individualized services for workers who have suffered occupational accidents. These case managers also draw on resources from social welfare and employment services programs to support these workers and their families in getting through hard times and assist them to return to work. Case services include:



Case managers for workers who have suffered occupational accidents have organized a support group for such workers, to help them return to work.



An occupational accidents case manager provided service to citizens.

(1) Protecting the rights and interests of workers who have suffered occupational accidents

The Program provides comprehensive consultations on the rights of workers who have suffered occupational accidents, ensuring that such workers and their families can access assistance to which they are entitled. Moreover, after major incidents of occupational accidents, case managers offer immediate condolences and followup assistance, to minimize the impact that occupational accidents can have on workers and their families.

(2) Supporting families in dealing with crises

Case managers bring their skills into play, building a comprehensive occupational accident services and resources network and utilizing the combined resources of the government and private sector, to help workers who have suffered occupational accidents and their families get through difficult times.

(3) Helping workers return to work

Case managers keep track of the physical and psychological rehabilitation of workers who have suffered occupational accidents, organize employment services resources, and oversee the restoration and improvement of the workers' ability to work. They also accompany workers and employers in negotiating the work conditions and job accommodation measures for the employee's return to the workplace and make efforts to help these workers get an appropriate work environment and conditions.



5. Protections for Specific Groups, Working Together to Create a Better Future of Development



Protections for Specific Groups, Working Together to Create a Better Future of Development



5-1 Inter-ministerial Care of Youth

Young people are the foundation for the sustainable development of the nation. To protect workers under 18 and ensure their occupational safety and health (OSH) rights in the workplace, OSHA formed the inter-ministerial "Task Force on the Workplace Safety and Health Rights and Interests of Juveniles." It includes OSH experts, representatives of children and youth, organizations related to children and young people, and representatives of government agencies. The Task Force integrates inter-ministerial opinions and promotion efforts, regularly holding interministerial meetings to discuss issues like

"the OSH of juveniles" and "employment guidance and assistance," and, with educational and social agencies, holds periodic interagency consultation meetings.

Besides the above measures, OSHA has incorporated youth OSH into the key requirements for labor supervision and inspection. In 2020, OSHA continued to undertake youth OSH inspections in industries which employ relatively large numbers of workers under 18. There were 1,508 such inspections, and 1,256 special inspections for labor conditions for student employees and part-time workers.





5-2 Protecting Middle-aged and Elderly Workers



o promote a workplace culture that is friendly to middle-aged and elderly workers and ensure their safety and health, in 2020 OSHA promoted six firms to be model enterprises for health services for middle-aged and elderly workers, with subsidies and professional teams to offer on-site guidance. Key services include improvement of the work environment, adjustment of operational processes, and worker health consultations. Through the creation of precedents for health services for middle-aged and elderly workers as well as the organizing of guidance and consultations for OSH for such workers, OSHA has encouraged employers to emphasize employment suitability and health maintenance for them. Also, in acting under the "Middle-aged and Elderly Employment Promotion Act," OSHA issued the "Guidelines for the Safety and Health of Middle-aged and Elderly Workers" to assist employers in building work environments that are friendly to these workers.



A Workers' Health Services Center goes on-site to provide health consultations for middle-aged and elderly workers.



Protections for Specific Groups, Working Together to Create a Better Future of Development





Occuptional health doctors conduct maternal health protection interviews.



5-3 Protecting Maternal Health

t is important to protect female workers who are pregnant or are within the first year after giving birth. In order to provide enterprises and working mothers with consultations on health protection and suggestions for suitable work adjustment, OSHA has commissioned various regional "Workers' Health Services Centers" and "Occupational Disease and Injury Prevention Service Centers" to provide related health services. In 2020 these services covered more than 18,000 female workers. In addition, in September of 2020 OSHA amended the "Regulations of the Maternity Health Protection at the Workplace." The amendments broadened the scope of application of the Regulations,

clearly requiring enterprises with 100 or more employees to adopt maternity health protection programs. Provisions were also added requiring employers to write up workplace hazard evaluations and protection measures, as well as to strengthen workers' individual health evaluations, and amending doctors' qualifications for conducting suitable work evaluations. In 2020 OSHA held 19 learning activities on maternal health protection, with nearly 800 participants. Through proactive on-site guidance and education, OSHA aims to provide pregnant women and new mothers with peace of mind in the workplace.







An OSH education session during an indigenous people's Harvest Festival.

5-4 Strengthening Protection of the Rights and Interests of Indigenous Workers

ndigenous workers and foreign migrant workers frequently do jobs related to high risks. In 2020 OSHA selected factories and construction sites employing indigenous people to undertake on-site visits and guidance, providing consultation services over 82 times, helping factories with high risks to apply for OSH facilities subsidies over 18 cases, holding 13 OSH education sessions, and conducting 20 sessions for OSH education and training

for indigenous peoples. In addition, in coordination with the program for mobile OSH education of indigenous peoples of the Ministry of Labor's Institute of Labor, Occupational Safety and Health, in order to hold discussions with indigenous workers to understand their needs for reference in promoting follow-up indigenous labor policies, OSHA assigned staff to participate in these educational activities.



5-5 Helping Foreign Migrant Workers to Avoid Risks

nalyzing data for occupational accident payments under Labor Insurance for the past three years, 73% of payments to migrant workers were for being cut, pinned, or rolled up by machinery, with most accidents happening at small and medium sized enterprises (SMEs). In response, in 2020 OSHA adopted strategies like risk banding management and guidance for prevention of cases of cutting, pinning, and rolling up by machinery, focusing on enterprises with high risks and with a high rate of noncompliance and a high incidence of occupational accidents. OSHA also prioritized a special program of inspections for occupational disability hazards. In 2020 OSHA undertook inspections under the special program over 31,150 times, provided SMEs with onsite diagnosis and individualized guidance over 722 times, and assisted companies to implement self-regulatory management and strengthen machinery safety, in order to ensure that foreign migrant workers can work safely.

Moreover, in order to enhance OSH awareness for foreign migrant workers,

OSHA has set up a special section on its webpage on this subject. The dedicated section provides e-files including posters and stickers for OSH awareness-raising. OSHA has also developed an OSH Digital Learning Platform, completing five digital courses related to common hazards in the manufacturing industries and translating the video courses into different languages including English, Indonesian, Thai, and Vietnamese, to improve migrant workers' hazard identification abilities. In addition, in order to enable migrant workers to legally operate forklifts and fixed-base cranes, OSHA commissioned training institutions with track-records of excellent performance to offer special courses for migrant workers. In 2020 there were 2,951 participants in 133 such training courses.



Learning the proper way to operate a forklift.



The OSH Digital Learning Platform.

6. Multi-pronged Approach to Workplace Safety and Health



6-1 International Interactions

n 2020, the triannual "World Congress on Safety and Health at Work," organized by the International Labor Organization and the International Social Security Association, was held featuring the theme of "COVID-19 and OSH." The Congress format was changed from an in-person conference to an online meeting. For the event, a number of international experts and scholars from relevant fields were invited to discuss issues related to COVID-19 and OSH. OSHA also assigned representatives to take part in online discussions, sharing Taiwan's experience with occupational accident prevention and worker rehabilitation. In addition to strengthening practical interactions with other countries, Taiwan was able to deepen its participation in the international community.

OSHA has continually worked to enhance the technical standards

of explosion prevention and safety, promote awareness-raising in related practices, and strengthen Taiwan's international integration in this field of safety. In November of 2020 OSHA held the "2020 Annual Seminar on Explosion Prevention and Industrial Safety." To conform to Taiwan's epidemic-prevention measures, expert seminars were entirely conducted using pre-recorded lectures and videoconference discussions. Experts from France and Germany in explosion prevention technology for electrical equipment and the field of certification were invited to attend the event, which included related businesspeople and experts from Taiwan. The event served as a platform for building an electrical equipment explosionprevention certification system and for technical exchanges and communication, for participating countries to share their best practices.

In September of 2020 OSHA and the UK's Health and Safety Executive



Tzou Tzu-Lien in a group photo with participants in the "2020 Annual Seminar on Explosion Prevention and Industrial Safety."





A group photo of participants in the 1st Taiwan OSHA – HSE (UK) Occupational Safety and Health Summit.

the 1st Taiwan OSHA – HSE (UK) Occupational Safety and Health Summit by videoconference. The two parties shared information on occupational safety and health (OSH) and strategies for improvement. During the event Tzou Tzu-Lien and HSE Chief Executive Sarah Albon signed a Memorandum of Understanding on cooperation and announced areas of future collaboration between OSHA and the HSE. The hope is that Taiwan can draw on the UK's practices and experience to upgrade the effectiveness of industrial safety and competitiveness, as Taiwan works to become a world class front-runner in OSH.

In 2020, despite the challenges posed by the COVID-19 pandemic, OSHA still managed to participate in many international OSH forums and activities, to exchange information with the international community and align with international standard development. For example, from February 4th to 6th, OSHA attended the "Chemical Dialogue" at the "APEC 2020 First Senior Officials' Meeting." in Putrajaya, Malaysia. Taiwan highlighted its contributions on this important subject of worker protection by sharing our methods for chemical management in the workplace, including: establishing a special unit responsible for chemical management, reconciling existing inventories, setting up a single unified window for registering of new chemicals, and protection measures of confidential business information (CBI). From November 5th to 6th, OSHA attended the "Chemical Dialogue" at the "APEC 2020 Third Senior Officials' Meeting," which was held by videoconference. At the event Taiwan shared its experience implementing GHS, and provided GHS capacity building advice, showing Taiwan's contributions to APEC member entities and the international community. In the future OSHA will continue to engage in international interactions and cooperation through APEC, working with other countries to improve workplace safety.



6-2 National Occupational Safety and Health Awards

he OSH awards presented by the government of Taiwan can be divided into two ccategories, depending on their purpose: their purpose: the benchmark type and the encouragement type.

The Awards are divided into three categories: the "National Occupational Safety and Health Awards," the "Excellent Construction Safety Awards," and the "Awards of Outstanding Occupational Safety and Health Organizations and Individuals" The purposes of the awards, as well as the honorable winners and presentation events held in 2020, were as follows:

The "National OSH Awards" are the highest awards in the field of OSH. The purpose of the awards is to draw attention to enterprises that have a track record of engagement in promoting OSH so they can serve as role models from which domestic industries can learn. In 2020, two individuals and 12 enterprises received these awards, of which four (InnoLux, Unimicron, Sun Ba Power, and the Chang Chun Group) won the "Benchmark Enterprise Awards," three won



An award-winning organization conducted training in preventing falls from heights.

the "Investment in Traditional Industries Special Awards," and five (including three healthcare institutions, one financial institution, and one university) won the "Workers' Health Special Awards."

The "Awards of Outstanding Occupational Safety and Health Organizations and Individuals," aim to encourage local enterprises and individuals to pro-actively implement OSH. In 2020 there were 39 awards for outstanding organizations and 24 for outstanding

A group photo of Vice Premier Shen Jong-chin, Minister of Labor Hsu Ming-Chun, and representatives of award-winning organizations.

Minister Hsu attended the 2020 "Excellent Construction Safety Awards" and OSH "Five-star Awards" presentation ceremony.

individuals. In addition, because nine enterprises had won outstanding organization awards for three consecutive years, they were presented with "Five-star Awards" after review of their OSH systems to confirm that they had achieved excellent performance.

The "Excellent Construction Safety Awards" aim to inspire domestic construction projects to implement OSH and to build up a culture of safety at construction sites. Construction organizations that win "Special Merit" or "Merit" awards shall be considered "outstanding suppliers" under the "Government Procurement Act" for two years, while those who win "Honorable Mention" awards shall be considered "outstanding suppliers" for one year.

In 2020 OSHA expanded the scope of the "Excellent Construction Safety Awards," for the first time including largescale private projects that were over 80% complete to serve as models from which both private and public construction projects can learn. In 2020, a total of 68 projects and eight individuals participated in the award competitions. Among these nominated projects there was one "Special Merit" award, 16 "Merit" awards, and 19 "Honorable Mentions," while for individuals there was one "Merit" award and three "Class A" awards. The award presentation ceremony was for the first time located in Kaohsiung, where prize winners enjoyed the enthusiastic hospitality of southern Taiwan.

The "Excellent Construction Safety Awards."

Multi-pronged Approach to Workplace Safety and Health

Moreover, acknowledging that a healthy labor force is an important asset for enterprises, if enterprises can emphasize workers' physical and mental health and enhance the quality of health services, this will certainly raise the competitiveness of the labor force and enterprises. In 2020, OSHA specially adopted the "Program for the Selection of Outstanding Workplace Health Services Personnel" to recognize, for the first time, those workplace health services personnel with remarkable accomplishments. There were three winners

Presentation ceremony for the "Outstanding Workplace Health Services Personnel Awards."

Judging panel for the "Excellent Construction Safety Awards" in action.

of the "Model Award" and five of the "Merit Award." Award winners were invited to share their contributions with others to enable enterprises to devote more attention to workers' health promotion. OSHA will continue in the future to draw attention to successful experiences and best practices with promoting OSH and health services, to assist enterprises to ensure they have healthy and safe workforces and can achieve sustainable business development as a result.

6-3 Safety Partnerships

n order to promote workers' safety and industrial safety, through promotion of safety partnerships built on positive interactions among stakeholders, OSHA works to strengthen the Plan-Do-Check-Act (PDCA) operational mechanism of enterprises' OSH systems. The goal is to put improvements to OSH management and equipment into place, build a culture of safety in which all employees take part, and achieve a triple-win situation of sustainable operations for enterprises, implementing of workplace safety by the government, and improvement of the health of workers.

In addition, OSHA's three regional Occupational Safety and Health Centers formed safety partnerships in 2020 with groups that included the Alliance of Ministry of Education College and University Campus Learning and Occupational Safety and Health and the Douliu Industrial Park industrial promotion association. At present, safety partners cooperating with OSHA and labor inspection institutions include two construction projects, 10 large enterprises, 16 commercial or industrial associations, and two industrial parks. In the future OSHA will continue to re-assess, improve, and enhance the substantive benefits of engaging in safety partnerships.

6-4 Encouraging Self-management at Enterprises

t has been over ten years since the Taiwan Occupational Safety and Health Management System (TOSHMS) was launched in 2008. Statistics indicate that as of the end of 2020, 957 enterprises had received TOSHMS certification, and estimates of the number of protected workers have risen from 69,000 to over 959,000. Further analyzing these 957 enterprises, there were 888 Class 1 enterprises with high risks (accounting for 92.7%), while the remainder (7.3%) were Class 2 and Class 3, indicating that enterprises with high risks accounted for the vast majority of TOSHMS-certified businesses. Further, the total accident index for TOSHMS-certified enterprises fell from an average of 0.40 for the three years prior to certification to 0.21 for the third three-year period after certification, a cumulative decline of 47.5%. It is evident that enterprises which continue to implement OSH management systems will certainly effectively maintain low incidence of occupational accidents.

In terms of aligning with international standards, in 2020 OSHA amended the "Directions for Guidance for TOSHMS Certification," changing amending the

OSHA signed a Memorandum of Understanding with the Taiwan Accreditation Foundation (TAF) on accreditation of TOSHMS certification institutions.

standards for certification to the national standard CNS45001, which is in line with the international standard ISO45001. Moreover, in order to promote an occupational safety and health management system to fit Taiwan's circumstances, OSHA worked together with the Taiwan Accreditation Foundation (TAF) to promote a TOSHMS accreditation program and jointly promote the TOSHMS 2.0 certification system. OSHA and TAF signed a Memorandum of Understanding on cooperation on October 12, 2020 to enhance the management capabilities of TOSHMS certification institutions.

In addition, in terms of the effective implementation of the domestic occupational safety and health management system and related educational activities, in 2020 OSHA held five educational activities and assisted 12 TOSHMS-certified organizations to complete conversion of their certification. As of the end of 2020 over 80% of TOSHMS-certified organizations had completed conversion of their certification. OSHA also promoted cooperation among industries to encourage firms to get TOSHMS certification, and enterprises set up three of their own independent TOSHMS promotion associations in northern, central, and southern Taiwan, respectively. In 2020, 10 educational and hands-on learning activities were held (with over 1,000 participants), three case studies handbooks were published, six sets of management case studies materials were developed, and four articles were submitted to journals to showcase successful cases.

Figure 6-1 Trend in the average total accident index for TOSHMS-certified enterprises in three-year increments.

6-5 Education and Training for Workers

A ccording to regulations, workers can only receive certification for completing legally mandated OSH education and training by passing a test. Completion tests, and to avoid fraud, since 2008 OSHA has promoted a scheme to separate training from testing practices. Moreover, based on the special features of different categories of training, technical skills verification or computer testing have been adopted for certain categories of training completion testing.

So far OSHA has announced the use of technical skills verification for training completion tests of 17 occupational categories including operators of forklifts with a load capacity over one metric ton. After candidates have received a certificate of completion of the term of training, they must pass technical skills verification in order to complete their training. In addition, since 2013 OSHA has announced over time that computerized testing has been adopted for training completion testing for 11 occupational categories including Type A OSH managers. Sequentially in 2020 OSHA added two new categories: "OSH education and training for rooftop operations managers" and "OSH education and training for managers of dusty work environments." Throughout the year, a total of 77,230 candidates took computerized tests, of which 61,338 passed, for a pass rate of over 80%.

Appendix

Organization and Services of OSHA

With reference to International Labor Organization (ILO) conventions, including the "Promotional Framework for Occupational Safety and Health Convention" (ILO No.187) which was announced by the ILO in 2006, Taiwan has taken pro-active steps to define a national OSH policy, to construct a national system of laws, regulations, and enforcement, and to implement national programs for OSH. In taking these actions, OSHA has given shape to an OSH culture based on people which emphasizes workers' safety and health and has steadily built safer and healthier working environments.

OSHA was founded on February 17, 2014 with the goal of enabling every individual to enjoy a safe, healthy, and decent work environment as well as occupational injury and disease diagnosis, compensation, and rehabilitation services, to safeguard the health the labor force and boost national competitiveness. OSHA's current organizational framework is as follows: The Director General is in charge of overall work, with two Deputy Directors General and one Secretary General subordinate to the Director General. There are also four functional divisions, three Occupational Safety and Health Centers, and five supporting offices, based on operational needs. The current budget allows for 304 total personnel. The organizational chart is shown below.

Occupational Accident Statistics

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