



# 202 / Annual Report

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





## Performance in 2021

**51.7%**

Workers' healthcare coverage rate

**3.13%**

Decline in the rate of payments for occupational accidents per thousand workers compared to 2020

**164,585 cases**

Supervision and inspections of occupational safety and health

**57,016 cases**

Supervision and inspections of working conditions

**102,987 pieces**

Inspections of dangerous machinery and equipment

**7,758 cases**

Type certifications of machinery and equipment

**35,671 cases**

On-site guidance for occupational safety and health

**980 events**

Awareness-raising for working conditions

**971 events**

Awareness-raising for occupational safety and health

**8,332 cases**

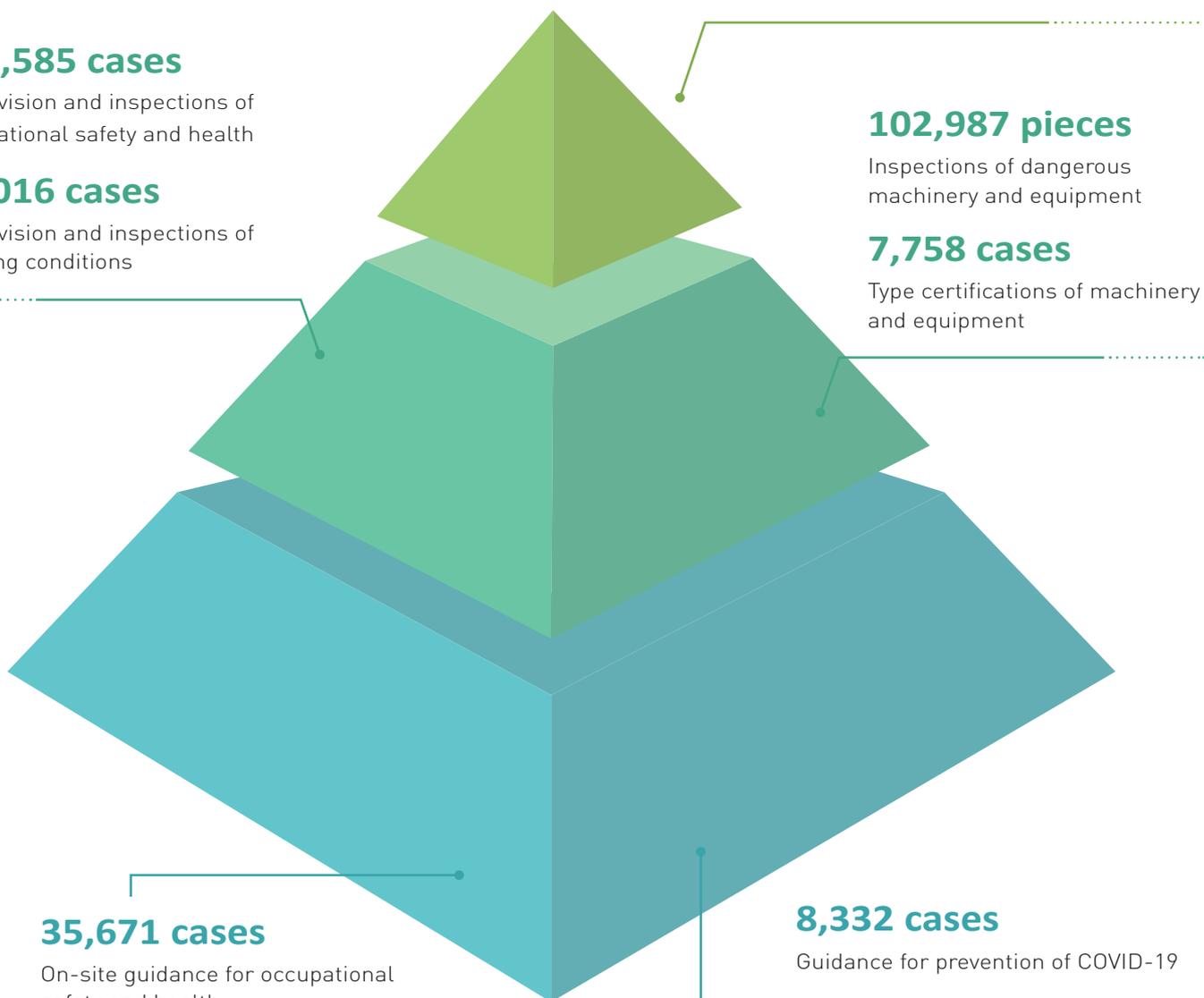
Guidance for prevention of COVID-19

**636 cases**

Guidance for workers' health services

**3,717 cases**

Guidance for working conditions using remote video



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# 2021 / OSHA

Annual Report



## Getting Through the Pandemic, Advancing Toward Better Occupational Safety and Health

In 2021 the entire world was severely impacted by the COVID-19 pandemic. Workplace epidemic prevention measures that enterprises and workers thought of as temporary gradually became part of daily life. In particular, in April 2021, there were cluster infection incidents in Taiwan involving airline staff and a quarantine hotel, and in May the national epidemic alert level was raised to Level 3. In order to assist enterprises to implement epidemic prevention work, the Occupational Safety and Health Administration (OSHA) produced guidelines and administrative measures to ensure occupational safety and health (OSH) and give enterprises and workers a guiding basis for action. Important measures adopted in 2021 included the following:

1. Formulation of the "Reference Guidelines on OSH for Work-from-Home": Considering that during the period of the Level 3 alert for the pandemic some enterprises adopted work-from-home policies, after making reference to actions taken in Taiwan and overseas, OSHA formulated the "Reference Guidelines on OSH for Work-from-Home." These assist enterprises to conduct hazard identification and risk evaluation for work-from-home employees and to adopt necessary equipment or measures when reasonable and feasible.
2. Strengthening of awareness-raising and guidance for high-risk professions and enterprises employing foreign migrant workers: With respect to workplaces or professions with high risk of COVID-19 exposure (including high-tech factories, large-scale food chain stores, healthcare institutions, and nursing home facilities), OSHA continued to implement remote guidance programs for workplace epidemic prevention measures. Moreover, with respect

- to enterprises hiring foreign migrant workers, OSHA implemented workplace epidemic prevention measures and extended workforce division management to mitigate risks.
3. Assisting enterprises to improve their work environments: To provide stimulus to domestic enterprises and stabilize employment during the pandemic, OSHA amended six sets of subsidy regulations and provided subsidies for improvement of work environments, prevention of occupational accidents (including illness), strengthened workplace OSH, and additional job opportunities.
  4. Refining labor supervision and inspection methods: Controls on people's movements during the pandemic reduced the risk of infection by contact between labor inspectors and the workforce. OSHA therefore promoted remote guidance programs for safety and health, working conditions, and OSH management systems. Inspections did not stop during the pandemic in order to ensure the workplace safety and the rights and interests of workers.
  5. Completion of a system for protection of workers who have suffered occupational accidents: The President promulgated the "Labor Occupational Accident Insurance and Protection Act" on 30 April 2021. In order to coordinate with the coming into effect of this Act on 1 May 2022, OSHA developed and stipulated eight pieces of subsidiary regulations, and also planned for the establishment of the Center for Occupational Accident Prevention and Rehabilitation.

In addition, to draw on the valuable experiences of other countries, OSHA and the European Agency for Safety and Health at Work (EU-OSHA) held the "1<sup>st</sup> EU-Taiwan Occupational Safety and Health Cooperation Meeting." Views were discussed and exchanged on two selected topics of "Safeguarding Occupational Safety and Health for Platform Economy Workers" and "Protecting and Providing Rehabilitation Services for Workers Suffering from Occupational Accidents." The two parties jointly developed better OSH policies and firmed up their partnership relations. Moreover, OSHA and the UK's Health and Safety Executive (HSE) jointly held the "2<sup>nd</sup> Taiwan-UK Occupational Safety and Health Summit" using a videoconference format. At the Summit, Taiwan OSHA and the HSE mutually shared OSH policies and promotional strategies.

In addition, to uphold workers' rights and interests during the pandemic, besides actively conducting inspections in response to complaints about working conditions, in 2021 OSHA undertook 17 special working-conditions inspection programs on the four main themes of "public safety," "supporting the disadvantaged," "frequent violations," and "issues of concern to society." In this way OSHA strengthened supervision of enterprises with long working hours and high rates of violations. At the same time, with respect to enterprises with low risks and limited resources, OSHA adopted an approach of legal compliance visits to assist these enterprises to comply with the laws.

Despite the profound impact of the pandemic in 2021, thanks to cooperation among the government, enterprises, and workers as well as the efforts of all interested parties in society, Taiwan's rate of payments under Labor Insurance for occupational accidents per thousand workers fell to 2.469, a new historic low. It is foreseeable that workplace environments will continually change, so relevant policies must be reassessed and adjusted on a rolling basis. OSHA will continue to bring together resources from industry, government, and academia and, through re-design of policies and systems as well as building of an OSH culture, will promote workplace safety and health and protection of workers' rights and interests, so that all workers will enjoy decent, safe, and healthy work environments.

Director General



OSHA, MOL, Republic of China (Taiwan)





- Continue to reduce the rate of occupational accidents (including illness), protect the basic rights of workers.
- Assist enterprises with hazard risk management and control, promote economic development.
- Maintain a decent work environment that protects workers' rights and interests as well as their physical and psychological health, upgrade national competitiveness.
- Improve compensation, diagnosis, treatment, and rehabilitation services for workers who have suffered occupational accidents, implement care for the disadvantaged and protection of labor rights and interests.
- Strengthen infrastructure for occupational safety and health (OSH) and rehabilitation of workers who have suffered occupational accidents, stay in line with international standards.

### Promotion of Occupational Safety through Multiple Approaches

Given the diversification of occupations and work environments, occupational accidents and hazards must be prevented by using multiple approaches. In order to ensure workers' safety, in 2021 OSHA worked through the four main measures of awareness-raising, guidance, inspections, and subsidies and continued to strengthen protective capabilities. Main accomplishments in 2021 included:

- Researching and producing a handbook on practices for modified

production processes, constructing a safety evaluation mechanism for Category A workplaces of high risk, and encouraging enterprises to implement process safety evaluations and self-management of OSH.

- Continuing to conduct inspections of dangerous machinery and equipment and, based on the provisions of Article 7 through Article 9 of the "Occupational Safety and Health Act," implementing source management, border control, and market examination and testing of machinery and equipment.
- Holding hands-on learning events and technical exchanges, refining labor supervision and management capabilities and upgrading self-management at enterprises, and assisting in enhancing accident prevention measures in Industry 4.0 and the green energy industry.
- Helping small and medium sized enterprises (SMEs) to improve their work environments, and using on-site and best-practice case guidance to enhance the OSH knowledge of enterprises.
- Promoting the "Taiwan Occupational Safety and Health Card" system to avoid wasting resources on redundant training and to promote employment of construction workers.
- Implementing joint supervision, guidance, and spot inspections of accident reduction measures at major public infrastructure projects, and encouraging construction companies and organizations to implement OSH management and prevent the occurrence of occupational accidents.



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## Refinement of Strategies for a Healthy Workforce

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Demographics for Taiwan indicate that 2021 was the second consecutive year in which the number of births was lower than the number of deaths, showing that the trends toward aging of the population and declining birthrate are becoming increasingly severe. The shortage of talents and skilled workers will become an urgent challenge.

Moreover, due to the recent trend of digital transformation, plus the fact that the whole world faced the COVID-19 pandemic in 2020, there has been an acceleration of changes in the types of industries and jobs that exist. Remote working has become the new normal, and the line between work and relaxation in daily life has become increasingly blurred. The public has taken notice of the challenge of ensuring the health and safety of people in emerging professions, and this has become a new issue for every nation.

In order to deal with epidemic prevention in workplaces and adapt to changes in the types of jobs that exist, OSHA has been coordinating with the disease prevention strategies of the Central Epidemic Command Center to formulate, update, and implement guidance measures for workplace epidemic prevention. OSHA has adopted multiple strategies including continually amending laws and regulations, awareness-raising and guidance, subsidies, and supervision and inspections, to help employers improve their work environments.

Moreover, in order to enhance the health of the workforce, in 2021 OSHA sought permission from the Executive Yuan to implement the "Mid- and Long-Term Sustainable Development Program to Promote a Healthy Workforce in Workplaces." Through promotion of sustainable health and safety, OSHA can encourage enterprises to prevent illnesses and injuries in emerging occupations and ensure the health of Taiwan's workforce.





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### Support for Workers Who Have Suffered Occupational Accidents

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Regardless of the severity of occupational accidents (including illness), for workers who suffer them and their families, any accident could be the first domino to fall in a negative chain of events. Based on the "Act for Protecting Workers after Occupational Accidents," OSHA provides living allowances and subsidies to all workers who have joined or not joined Labor Insurance, as well as to their families, in order to protect the rights and interests of workers who have suffered occupational accidents. Moreover, through specially commissioned programs OSHA provides diagnosis, treatment, and rehabilitation services for occupational injuries and illnesses and assists workers to return to the workplace, building a system of comprehensive and integrated services for workers who have suffered occupational accidents.

As of 2021 OSHA had commissioned the establishment of 10 Occupational

Disease and Injury Prevention Services Centers and 86 network hospitals and subsidized 25 occupational rehabilitation services organizations to provide nearby and convenient professional services to workers. Moreover, in order to strengthen pro-active services for workers who have suffered occupational accidents, OSHA continued to subsidize the labor affairs agencies in 19 local governments to promote the "Injured Workers Assistance Program," with 53 case managers to provide timely, customized, and in-depth services (including referrals to labor or social assistance resources) to workers who have suffered occupational accidents and their families, thereby helping workers get through harsh times and get restarted.

In the future, OSHA will build a comprehensive protection system that combines up-front accident prevention and post-accident rehabilitation tasks by initiating accident prevention, compensation, and rehabilitation systems. OSHA will use secured financial resources and expanded

service capabilities for injured or ill workers, and build an integrated service network of accredited healthcare institutions and accredited occupational rehabilitation institutions to provide integrated services for diagnosis and treatment of occupational injuries and illnesses. OSHA will also expand reporting of occupational injuries and illnesses, assist workers who have suffered occupational accidents to restore and strengthen their job skills, and, through the management of accredited institutions and outstanding service quality, give affected workers more effective services.

### Seeing Taiwan's Future through the Lens of Overseas Standards

In order to prevent occupational accidents and ensure workers' OSH, in recent years OSHA has continually learned from overseas experiences with promotion of OSH. OSHA has encouraged enterprises to adopt business sustainable development, explosion-proof equipment systems, OSH management systems, and systems for the return to the

workplace of workers who have suffered occupational accidents and to incorporate these into Taiwan's OSH regulatory system and policy tools. The goal has been to encourage enterprises to improve their work environments and upgrade the standard of OSH in Taiwan.

Taking into account the status of the workforce—given the declining birthrate and the aging of the population and health risks such as fitness-for-work of middle-aged and elderly workers, work-related diseases associated with emerging new operational formats, and the presence of harmful and carcinogenic materials in factories—OSHA, with reference to the United Nations Sustainable Development Goals and the GRI 403 Standard for Occupational Health and Safety, has promoted a program for workplace sustainable health and safety development. The program encourages enterprises to make public their OSH management performance in their company sustainability reports. OSHA has also initiated occupational cancer prevention programs to ensure a healthy workforce in Taiwan's workplaces and enhance national competitiveness.



In addition, the International Electrotechnical Commission System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres (IECEx) has already had its licensing outcomes incorporated into law in countries that include Australia, New Zealand, and Singapore. Taiwan, meanwhile, has transformed the international explosion-proof safety standards IEC 60079 into national standards CNS 3376 and incorporated these into OSH law. Requiring explosion-proof equipment at enterprises to be certified enhances protection of workers' safety. Moreover, since the 2018 announcement by the International Organization for Standardization (ISO) of the ISO 45001 standards for OSH management systems, Korea and Japan have already incorporated these standards and practices into law and have promoted autonomous certification systems.

Taiwan, meanwhile, has promoted the Taiwan Occupational Safety and Health Management System (TOSHMS) certification system and transformed the ISO 45001 standards into national standards CNS 45001. Moreover, OSHA

issued the "TOSHMS Specified Audit Item Requirements" and incorporated these into TOSHMS certification standards to guide enterprises to promote OSH management systems on a long-term basis in order to reduce the incidence of occupational accidents (including illnesses).

OSHA has also studied the way in which advanced countries use designated occupational accident insurance funds to invest in accident prevention and rehabilitation for workers who have suffered occupational accidents, and has appropriated some of the income from occupational accident insurance premiums to integrate accident prevention and post-accident rehabilitation work and expand prevention and rehabilitation services. The provision of rehabilitation services to the disabled can help them return to the workplace. OSHA will continue to encourage maintenance of a healthy workforce and will build a comprehensive system of pre-accident prevention, adequate compensation, and post-accident rehabilitation.





## Chapter 2

# A Look Back at Major Developments in 2021

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### Workplace Disease Prevention Strategies for the COVID-19 Pandemic

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#### Real-Time Updating of Workplace Epidemic Prevention Information, Raising Confidence in Collective Resistance to COVID-19

In 2021 the COVID-19 pandemic continued to threaten the entire world. To ensure workers' safety and health, the Occupational Safety and Health Administration (OSHA) continued to work with competent government

agencies to mitigate the pandemic, while also promoting enterprises to adopt disease prevention measures such as workforce diversifying management and offsite offices. On 20 June OSHA issued the "Reference Guidelines on Occupational Safety and Health for Work from Home (WFM)," and provided reference information to enterprises to conduct epidemic prevention measures in WFH workplace settings.



In order to strengthen epidemic prevention measures for food delivery businesses, on 27 May 2021 OSHA again amended the "Key Guidance of Epidemic Prevention for Food Delivery Personnel" to stipulate that food delivery platform operators must provide essential materials for disease prevention (including surgical masks and cleaning and disinfection products) to food delivery personnel, and should prioritize the use of service mechanisms including "mobile payments" and "non-contact food delivery" to avoid unnecessary exposure and contact resulting from cash payment transactions. Also, when deliveries are made to high-risk locations like quarantine hotels or healthcare institutions, delivery personnel should take the initiative to arrange delivery in outdoor meet-up locations with good ventilation or in designated appropriate sites, thereby complying with relevant epidemic prevention control measures.

### **Strengthening Management of High-Risk Professions and Foreign Migrant Workers to Contain Community Transmissions**

The pandemic worsened in Taiwan starting in May 2021. Venues or industries with a relatively high risk of exposure included high-tech factories, nursing home facilities, chain stores, healthcare institutions, food delivery platforms, warehousing, and transport. Labor inspection institutions conducted case-by-case guidance of epidemic prevention measures in such industries on a total of 5,998 occasions.

However, because there was an outbreak of COVID-19 among foreign migrant workers at high-tech factories in June, OSHA coordinated with the comprehensive epidemic prevention measures of the Central Epidemic Command Center. OSHA once again launched its program for epidemic prevention auditing at workplaces with

a large number of migrant workers. OSHA implemented audits and guidance and strengthened separate-track management of migrant workers' living conditions on a total of 1,072 occasions.

In addition, considering that new variants of the COVID-19 virus that were even more infectious were appearing constantly, OSHA used remote methods (videoconferences, e-mails, and telephone calls) to undertake guidance for workplace epidemic prevention in order to sustain labor inspection capabilities. OSHA also conducted trial implementation of a program for remote guidance for epidemic prevention in the workplaces of high-risk enterprises. In total, there were 1,262 occasions on which guidance was offered.

### Accompanying Enterprises and Workers in Getting through Harsh Times When the Pandemic Became Severe

In 2021 variants of the COVID-19 virus caused the global pandemic to become even more severe. In response, in order to help domestic enterprises overcome the impact of the pandemic, OSHA amended six sets of subsidy regulations to cope with the challenges. The amendments include subsidies aimed at providing stimulus for domestic enterprises impacted by the pandemic and helping them improve their work environments, with expert guidance teams assisting enterprises to improve their work environments and enhance workplace safety and health. The goal was to increase job opportunities and alleviate labor shortages. In 2021 OSHA approved subsidies totaling NT\$90.26 million to support 437 enterprises.





President Tsai Ing-wen signed the promulgation of the "Labor Occupational Accident Insurance and Protection Act" on 30 April 2021.

### **The Labor Occupational Accident Insurance and Protection Act and the Founding of the Center for Occupational Accident Prevention and Rehabilitation**

30 April 2021 was an exceptionally monumental day in the advancement of occupational safety and health (OSH) in Taiwan. On that day President Tsai Ing-wen promulgated the "Labor Occupational Accident Insurance and Protection Act," thereby finalizing the legislative process for a specific law governing protections for workers who have suffered occupational accidents (including both injuries and illness),

with the expectation of "actively implementing this Act which establishes a new milestone in protection of workers' rights and interests and serves as a strong pillar of support for workers."

Going back to the initiation of this legislation, it was actively promoted by OSHA in coordination with a mandate set by the Ministry of Labor in order to protect the rights and interests of workers who have suffered occupational accidents and to strengthen the effectiveness of rehabilitation of affected workers. The "Labor Occupational Accident Insurance and Protection

Act" passed its third reading by the Legislative Yuan on 23 April 2021 and was promulgated by the President on 30 April. The Executive Yuan then decided that the law shall come into effect on 1 May 2022.

To coordinate with the coming into effect of the Act, OSHA formulated eight sets of subsidiary legislation, including the following:

- "Regulations for Subsidizing the Prevention of Occupational Accidents and the Rehabilitation of Workers Suffering Occupational Accidents,"
- "Regulations for Health Examination and Follow-up Health Examination of Labor Occupational Accident Insurance for Prevention of Occupational Diseases,"
- "Regulations for the Management and Subsidies of Approved Professional Occupational Rehabilitation Institutions for Workers Suffering from Occupational Accidents,"
- "Regulations Governing Subsidies from the Municipality and County

(City) Governments for Assisting Workers Suffering from Occupational Accidents to Return to Work,"

- "Regulations for the Supervision and Management of Occupational Accident Prevention and Rehabilitation Center,"
- "Regulations for the Management and Subsidies of Approved Occupational Injury and Disease Service Medical Institutions and the Notification of Occupational Injury and Disease,"
- "Implementation Regulations for Occupational Disease Appraisal of Labor Occupational Accident Insurance," and
- "Regulations for Workers of Occupational Accidents Applying for Subsidies of Devices, Care, Disability and Death."

In addition, OSHA did the preparatory work for establishment of the Center for Occupational Accident Prevention and Rehabilitation and formulated the funding bylaws for the Center.



The "Labor Occupational Accident Insurance and Protection Act" expands the scope of insurance coverage and incorporates the subsidy items of the "Act for Protecting Workers after Occupational Accidents" into insurance payments. It also adds subsidies for hospital stays and upgrades payment rates and protections. Moreover, the Act provides relevant subsidies for workers who have suffered occupational accidents but have not yet enrolled in occupational accident insurance.

Another important aspect of the Act is that in order to integrate occupational accident prevention and post-accident rehabilitation work, it effectively expands the service orientation of prevention and rehabilitation work, making the construction of an integrated system of pre-accident prevention, adequate compensation, and post-accident rehabilitation a top priority. The government can appropriate a certain proportion of funds from annual insurance premiums

to conduct tasks such as occupational accident prevention, rehabilitation of workers who have suffered accidents, and health examinations to prevent occupational diseases.

It was also stipulated that a specialized institution would formally begin operations on 1 May 2022 to carry out overall planning of the implementation of governmental accident prevention strategies and promote measures related to safety and health, as well as handle tasks like assisting in individual case management of workers who have suffered occupational accidents and provision of rehabilitation services. Not only can this institution compensate for the current shortfall of manpower in the existing occupational accident prevention and occupational rehabilitation systems, it can also bring together relevant service resources to make the occupational accident protection system more comprehensive for workers.





## Chapter 3

# Successes in Policy Implementation

### Effective Promotion of Legal Compliance through Labor Inspections

### Continual Reduction of Accidents through Risk Banding

The Occupational Safety and Health Administration (OSHA) implemented risk banding for industries with high risks, to maximize the effectiveness of accident prevention and accident reduction, and to ensure workers' safety and health. OSHA adopted the following risk banding management measures for different types of enterprises:

- **Enterprises with excellent occupational safety and health (OSH) performance:** OSHA gives priority to conducting visits and supervisory mechanisms for businesses that practice self-regulatory management, and holds guidance, hands-on learning, and knowledge sharing activities to assist organizations with outstanding OSH records to move toward becoming "benchmark enterprises."
- **Enterprises with high risk of OSH accidents:** For enterprises with a high rate of noncompliance, high risks,

and a large number of occupational accidents, OSHA gives priority to inspections and implements follow-up corrective measures for improvement, to ensure compliance with laws and regulations.

- **Small and medium sized enterprises (SMEs):** OSHA provides 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 leading small factories, OSHA promotes upgrading of the level of OSH management at SMEs.

In 2021 OSHA classified the construction industry, the manufacturing industry, the wholesale and retail sales industry, the transport and warehousing industry, the accommodations and food and beverage industry, and workers with no fixed employers as "high-risk industries/persons." OSHA focused

on hazards such as getting caught, pinned, or rolled up; getting pierced, cut, or scraped; and falling, falling from a height, and tumbling down.

From 2011 through 2021, the "rate of payments under Labor Insurance for occupational accidents per 1000 workers" showed a steady downward trend. Thanks to the efforts of the central and local governments and all stakeholders, the rate of payments under Labor Insurance for occupational accidents per 1000 workers in 2021 fell to 2.469, a decline of 3.138% from the 2020 figure of 2.549, and a decline of 22.82% compared to the average of 3.199 for the years 2014 through 2016. In addition, labor inspection institutions conducted OSH supervision and inspections a total of 164,585 times, offered OSH awareness-raising 971 times, and provided guidance 4,469 times. With these activities they ensured that enterprises implemented workplace OSH management properly.



■ The rate of payments under Labor Insurance for occupational accidents per 1000 workers over the years.

## Explanation of items for labor inspections

In Taiwan, local governments have been authorized to do some labor inspection work, while some labor inspection matters are reserved to the central government. At present there are 1,033 openings for labor inspectors in Taiwan. The ratio of inspectors to workers is 1:11,152, conforming to the standard of 1:10,000 set by the International Labor Organization (ILO) for industrialized countries. In 2021 there were 329 staff for inspecting working conditions on the job, and 609 staff for inspecting OSH compliance, for a total of 938 inspectors on the job (of which males accounted for 64.5% and females for 35.5%).

When labor inspectors undertake labor inspections, they often have to deal with business owners, workers, and interested stakeholders, so there is a great deal of pressure. To ensure that labor inspectors can steadily stay in their jobs long enough to build up their professional skills, OSHA periodically arranges for professional and on-the-job training.

Moreover, each year OSHA invites the competent authorities for labor affairs and labor inspection institutions to convene meetings to discuss matters related to inspections of working conditions and OSH compliance. When appropriate, OSHA also holds national work conferences to unify the scope of inspections and ensure the quality of inspections and the professional skills of inspectors.





OSHA guides small and medium sized enterprises to improve their work environments.

## Staying Up-to-Date on Protecting Workers' Safety

### Improvement of Work Environments at Small and Medium Sized Enterprises (SMEs)

#### Upgrading safety management at SMEs through multiple resources

In 2021 OSHA coordinated with local governments and continued to promote the "Ministry of Labor Subsidizing Plan for Local Governments Involving in Promotion of Guiding and Improving Working Environments for SMEs." OSHA assisted local governments to hire OSH specialists and recruited OSH personnel working in the local business community or who have already retired to form guidance teams. These expert OSH service teams provided "on-site guidance" on 15,200 occasions and 317 awareness-raising activities.

In addition, OSHA worked with local enterprises with outstanding OSH performance, arranging for large enterprises to guide small ones and

pass along their experiences to SMEs. Enterprises formed OSH Families and set up OSH self-management in factories to support and learn from each other. Statistics show that at firms participating in OSH Families that received guidance, the number of people involved in occupational accidents was, on average, 40% lower than the incidence two years prior to receiving guidance.

#### Conveying OSH information through multiple channels for everyone to protect occupational safety

Whether or not OSH management can be implemented depends on the management stratum at SMEs and the awareness level of workers themselves. Therefore in 2021 OSHA published and delivered OSH hazard prevention pamphlets, awareness-raising slogans and posters, and stick-on warning labels for commonly-seen factory OSH hazards. These were supplemented with e-newsletters sent out each month at OSHA's own initiative, in order to convey the concepts

of hazard prevention through hard-copy and digital awareness-raising materials, enabling SMEs to continually acquire new OSH knowledge and hazard prevention information. Moreover, the Facebook page set up in 2018 for OSH at SMEs enables OSHA to provide all kinds of information including new OSH data, announcements of activities, videos, and case studies which can be accessed when convenient to assist in educating SME managers and employees.

### **Strategies for Improved Process Safety at High-Risk Enterprises**

#### **Implementation of a dual-track policy of enterprise self-management and labor inspections for process safety**

To assist enterprises to understand the importance and operating procedures for changes in production processes by ensuring they can identify and analyze potential hazards created by such changes and install the necessary equipment and take appropriate measures, in 2021 OSHA continued to use on-site guidance to help them improve workplace process safety equipment and measures.

OSHA also produced the "Reference Handbook for Safety Evaluation Practices at High Risk Category A Workplaces with Production Process Alterations," and provided it to enterprises for reference in determining and implementing changes in

production processes. OSHA also held various activities including conferences, hands-on learning events, and education and training sessions, to enhance process safety management capabilities at enterprises.

At the same time OSHA expanded the digital database on reliability of production process equipment for information management systems at dangerous workplaces and provided this to enterprises for reference in implementing process safety evaluations. In addition, to ensure that labor inspectors have expertise in process safety management and to facilitate labor inspections, OSHA held the "2021 OSH Education and Training for Process Safety Assessments for Labor Inspectors" and arranged for practical training at the Formosa Plastics Group Technical Training Center. Through a combination of theory and practice, labor inspectors were prompted to enhance their expertise in process safety inspections.

### **Safety Management of Machinery and Equipment**

#### **Source management of machinery and equipment and implementation of inherent safety of machinery and tools**

The safety of workers in the workplace begins with source management of the safety of machinery and equipment by protecting labor



safety from the source of hazards. In 2015 Taiwan launched the "Registration System of Safety Information for Machinery, Equipment, and Tools" for ten designated types of machinery, equipment, and tools. In 2019 it was announced that two types of machinery, equipment, and tools would be added, including non-numerically controlled lathes and milling/boring machines. Numerically controlled lathes and milling/boring machines, as well as machining centers and transfer machines, are scheduled to be added in 2023. Manufacturers or importers of the listed types of machinery, equipment, and tools are required to register items that meet safety standards on the information reporting website and must attach "TS" Safety Labels to the devices themselves.

Moreover, in July 2018 OSHA began promoting a "Type Certification System" for designated machinery, equipment, and tools. Domestically manufactured or imported voltage reducing devices for AC arc welding equipment may not be shipped by manufacturers or imported by importers in cases in which

these devices have not passed type certification conducted by an approved certification body and/or do not have attached certification marks.

In 2021 OSHA reviewed 7,758 filings for registration from 738 firms, and market examinations and sample testing of 1,109 designated machinery and equipment at 722 firms.

### Source management of risk of listed dangerous machinery and equipment in the workplace

There are usually relatively high risks associated with the operation of dangerous machinery and equipment, and the occupational hazards these create have a quite broad impact. Looking at statistics of occupational accidents occurring while using dangerous machinery and equipment, the main causes are improper operation through human error and lack of maintenance.

Therefore the government has set out a list of dangerous machinery and equipment with a certain level of risk in order to manage risk at the source.

Types of machinery, equipment, and tools	Year included
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

Figure 2-1: Machinery, equipment, and tools included in the "Registration System of Safety Information" as of 2021.



An authorized inspector agent tests the thickness of a Class 1 pressure vessel and inspects its weld beads.

Article 16 of "Occupational Safety and Health Act," Employers shall not use machinery or equipment specified as dangerous by the central competent authority without passing an inspection by a labor inspection agency, or by a certificated inspection agency designated by the central competent authority; where such usage exceeds the stipulated period, the machinery and facilities shall not be used without passing a re-inspection.

"Dangerous machinery" refers to fixed cranes, mobile cranes, derrick cranes, elevators for construction use, lifts for construction use, and cradles. In 2021 inspections were carried out on 30,959 pieces of dangerous machinery. In addition, "dangerous equipment" refers to boilers, pressure vessels, specified high-pressure equipment, and high-pressure vessels. In 2021 inspections were carried out on 72,028 pieces of dangerous equipment.

### The Year of Strengthened Accident Reduction in the Construction Industry

### Accident prevention schemes and accident reduction strategies

In 2021 major domestic public infrastructure projects and construction projects unfolded, and OSHA promoted "The Year of Strengthened Accident Reduction in the Construction Industry" to enhance supervisory and inspection capabilities, direct construction firms to comply with laws and regulations, and assist in constructing an OSH management system to achieve the goal of reducing accidents.

In order to continue reduction of occupational accidents nationwide, OSHA reassessed accident prevention schemes for the construction industry. Besides enhancing supervisory and inspection capabilities for the construction industry and actively dealing with and punishing OSH rule violations, OSHA also promoted risk evaluation management for construction projects, implemented "Taiwan Occupational Safety and Health Card" education and training, strengthened

self-management mechanisms for construction sites, and adopted a number of strategies for further reducing accidents in the construction industry (including integrating external resources for accident prevention and using information and communications technology for accident reduction). The goals were to assist the construction industry in building an OSH management system and reduce the risk of occupational accidents.

On 4 January 2021 Minister of Labor Hsu Ming-Chun led OSHA representatives in meeting with labor inspectors from local governments, and they undertook labor inspections at the sites of four major construction projects. They also officially announced 2021 to be "The Year of Strengthened Accident Reduction in the Construction Industry," and asked enterprises to implement safety management during construction work and strengthen OSH facilities, to avoid occupational hazards for workers.

### Joint inspections of infrastructure projects, working together to strengthen accident reduction in construction

Records of the past indicate that a large number of serious occupational accidents occurred in the course of work at major public infrastructure projects, with the rate and scale of accidents demanding attention. In order to ensure construction work safety, OSHA implemented "joint accident-reduction supervision and guidance at major public infrastructure projects" to encourage the agency in charge of a project, the unit in charge of construction, and all the contractors to actively implement OSH management.

In addition, on 14 October 2021 OSHA, the Ministry of Economic Affairs, and the Taiwan Power Company conducted a joint inspection of a power plant construction site. They audited the shortage of OSH facilities in the workplace and asked the agency in charge of the project to ensure that



Minister of Labor Hsu Ming-Chun led a team to announce a program to strengthen accident reduction in the construction industry.



OSHA and the Ministry of Economic Affairs carried out a joint inspection of construction work at the Datan Power Plant.

all contractors strengthened safety management measures to protect the safety of infrastructure workers on the job. At the same time they showed concern for the working and living conditions of on-site foreign migrant workers and expressed gratitude to Taiwanese workers and migrant workers for their collective efforts in supporting Taiwan's national development.

### **Development of high-level education and training in the construction industry to raise OSH competency**

It is essential to enhance the ability of workers to identify hazards, to strengthen general OSH education and training for construction workers, and to increase the willingness of workers to undergo training. To these ends, OSHA has pursued a dual-track policy.

On one hand, OSHA laid out plans for training of instructors and production of unified teaching materials by labor inspection institutions, which were provided to training organizations to ensure the quality of training and were

actively spread through multiple training organization channels.

Materials were prepared in a number of languages including Indonesian, English, Vietnamese, and Thai to strengthen the OSH competency of foreign migrant workers. On the other hand, OSHA strengthened awareness-raising and guidance and encouraged the construction industry to coordinate with "Taiwan Occupational Safety and Health Card" education and training, to cultivate high-quality human resources for the industry.

OSHA has been steadily promoting the "Taiwan Occupational Safety and Health Card" system since 2018. Under this system, workers who have undergone general OSH training for the construction industry can, after passing a test, get a "Taiwan Occupational Safety and Health Card" which records their relevant OSH training and prevents wasting of resources on redundant training, while also promoting employment in the construction industry.

## Strengthening the Effectiveness of Supervision and Management at Emerging Industries

### Improvement of the regulatory regime for safety for human-machine collaboration, lowering the risk of occupational accidents in emerging industries

To prevent potential hazards from the trend toward human-machine collaboration, 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 produce manufacturing safety assessment reports. In order to assist enterprises to conduct assessments and produce manufacturing safety assessment reports, in the same year OSHA issued the "Directions for Work Safety

Assessment for Collaborative Robots," which stipulate relevant detailed items for assessments, to ensure safety in the employment of collaborative robots.

### Responding to the development of smart manufacturing, implementing safety assessments of human-machine collaboration

To enable labor inspectors to gain a full understanding of concrete methods for safety management of collaborative robots, in 2021 OSHA held the "Hands-on Workshop for Best Practices for Collaborative Robots." The goal of the Workshop was to assist all labor inspection institutions to get an on-site understanding of the design and operations of collaborative robots and the safety assessment items, relevant safety rules, and best practices for their safe use. This knowledge enabled these institutions, when doing later labor supervision and inspections, to supervise enterprises in conducting assessments and preparing manufacturing safety assessment



■ An informational poster for the Taiwan Occupational Safety and Health Card.



OSHA Director-General Tzou Tzu-Lien gets first-hand experience in the operation of a collaborative robot.

reports based on relevant rules, in order to prevent occupational hazards like getting rolled up or pinned or being struck by an object.

In addition, to continue to strengthen enterprises' safety assessment capabilities in the use of collaborative robots, in 2021 OSHA undertook guidance of safety assessments for collaborative robots to assist enterprises using collaborative robots to complete safety assessments and manufacturing safety assessment reports, enhance the competency of related safety management, and ensure the safety of workers involved in collaborative work.

### **Dealing with numerous risks in the offshore wind power industry, drawing on the British experience to promote safety**

In recent years, "wind power generation" has become an emerging industry in Taiwan, and total capacity will

reach 5.7 GW in 2025. However, because industries related to offshore wind power like construction, operations, and maintenance are conducted in unique environments (including coastal areas, at sea, and underwater), hazards like falling from a height, falling objects, electrocution, being struck, and drowning can occur at any time. Therefore the design and construction of offshore wind power systems must take into account intrinsic safety and risk management at the source. In the design and construction planning phases it is necessary to identify and assess hazards in the work environment and operations and to adopt control measures to avoid the occurrence of occupational accidents.

OSHA has drawn on the UK system for OSH at offshore wind farms and organized a supervisory and inspection team to strengthen supervisory and inspection capabilities. OSHA has

also issued the "Reference Handbook for Essential Data for Supervision and Inspection of Wind Power Enterprises," including supervision and inspection items for at-sea operations, inspection operating procedures, and related details. OSHA has moreover implemented a supervisory and inspection program for OSH of at-sea operations of offshore wind farms, giving priority to at-sea operations during the construction stage of offshore wind farms, and has encouraged enterprises doing construction at such sites to implement self-auditing and risk assessment.

### Arranging for specialized training, strengthening at-sea supervision and inspection capabilities

Labor inspectors who go to sea to conduct OSH supervision and inspection of at-sea operations and offshore wind

farms are exposed to risks like falling from a height, falling objects, being struck, or drowning while being taken out to wind farms by boat. Therefore they must undergo specialized training authorized by the Global Wind Organization (GWO). Only after having been qualified through such training can they go onto offshore wind power operational platforms and turbines and undertake supervision and inspection.

In 2021 OSHA again dispatched the supervisory and inspection team to go to sea by boat and undertake OSH supervision and inspection of at-sea operations. They required wind farm developers to strengthen supervision of the operational safety of construction contractors, and to implement offshore wind farm operational risk assessments and management.

The offshore wind power supervisory and inspection team conducts supervision and inspection of OSH of at-sea operations of an offshore wind farm.



## Multiple Strategies to Maintain Workers' Health

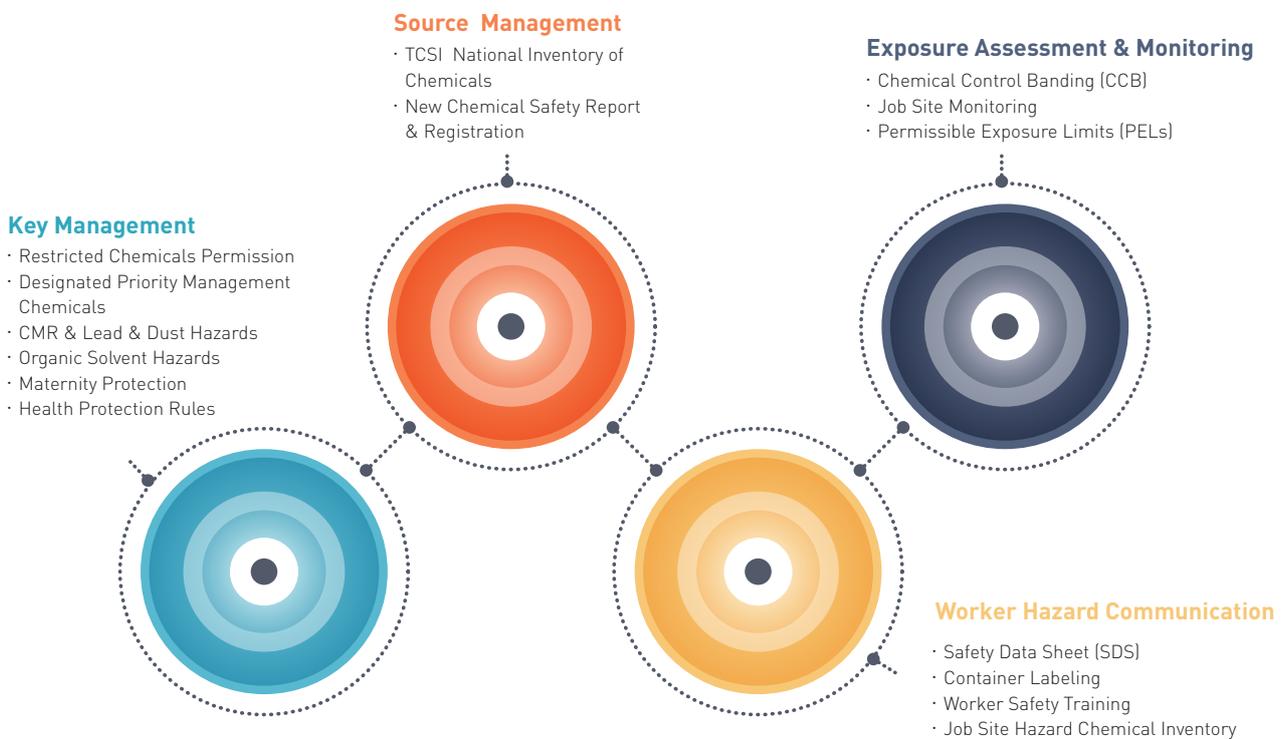
### Source Management and Priority Management of High-Risk Chemicals

#### Learning from overseas to enhance management efficiency and capabilities

OSHA, taking into account Taiwan's conditions and industry types, and with reference to the practices of international organizations and advanced countries, has adopted two main management strategies, "Chemicals Source Management" and "Priority Management." OSHA is endeavoring to enhance the efficiency of and capabilities for chemical management in firms in Taiwan and

to fully achieve the goal of safe use of chemicals by workers.

In terms of Chemicals Source Management, OSHA has implemented approval, registration, and management of new chemical substances, and requires source firms including manufacturers and importers to submit a "Chemical Safety Report" (CSR) according to regulations. Moreover, OSHA has cooperated with the Environmental Protection Administration to establish unified single-window services and establish a joint review mechanism. In 2021 a total of 1,407 cases of applications for registration of new chemical substances were received, with provision of expert reports on safety assessments of new



OSHA workplace sound management schemes and measures to protect workers from chemical exposure hazards.

chemical substances, while 75 cases of delayed applications were received and delayed application reviews were completed for 776 substances.

In terms of Priority Management, with respect to highly hazardous and widely used chemicals, OSHA adopted a Priority Management operational data reporting mechanism. In particular, with respect to chemicals with high risks from exposure that are highly carcinogenic, mutagenic, or toxic for reproduction, OSHA has implemented a permit system for controlled chemicals to protect workers' health and lives. As of 2021 OSHA had data from over 5,221 locations using Priority Management or controlled chemicals, and undertook backend sample inspection of data at 100 operational locations.

### Enhancement of chemical hazards knowledge and competency

In coordination with the Globally Harmonized System of Classification

and Labelling of Chemicals (GHS) promoted by the United Nations, OSHA has worked to prevent occupational hazards caused by uncertain understanding of chemical hazard information by workers. OSHA has required that manufacturers, importers, suppliers, and employers provide "Safety Data Sheets" (SDSs) for hazardous chemicals, undertake labeling, and adopt relevant notification measures. In particular, where foreign migrant workers are employed, these should be provided in foreign languages that the workers can understand.

In recent years, OSHA has continually updated the "GHS Database of Information on Chemical Hazards" for the reference and use of domestic firms, and in 2021 there were about 800,000 hits on the website. In addition, OSHA conducted 23 regional education and training activities on labeling and notification of chemical hazard categories, risk banding management,



Chemical hazard posters in English, Indonesian, Thai, and Vietnamese.

and SDS audits, with a total of over 2,394 participants. In this way OSHA effectively promoted the implementation of a domestic hazard notification system. OSHA also prepared posters in multiple languages and provided these to enterprises for their use, in order to assist foreign migrant workers in Taiwan to understand chemical hazards.

### **Use of multiple assessments to implement risk banding management**

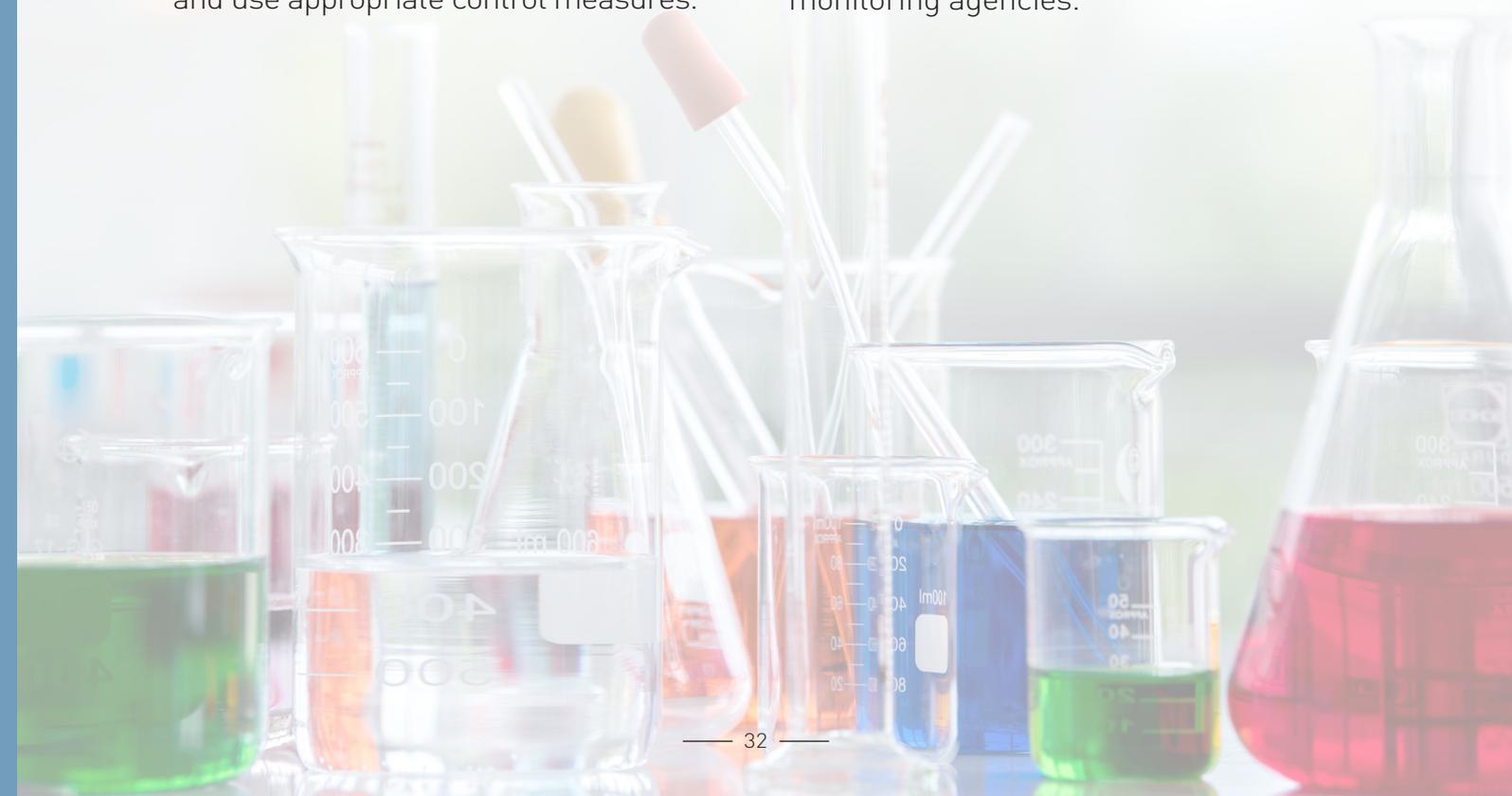
To help domestic companies update and improve their chemical management systems, OSHA, with reference to the risk banding management systems of the International Labor Organization and various countries around the world, has created the "Chemical Control Banding" (CCB) tool and produced a handbook with models for estimates of exposure to hazardous chemicals. Moreover, in 2021, OSHA produced illustrated teaching materials for risk evaluation tools for specified levels of exposure that are widely used internationally so that enterprises can do their own preliminary screening and exposure assessments of hazardous chemicals in their factories and use appropriate control measures.

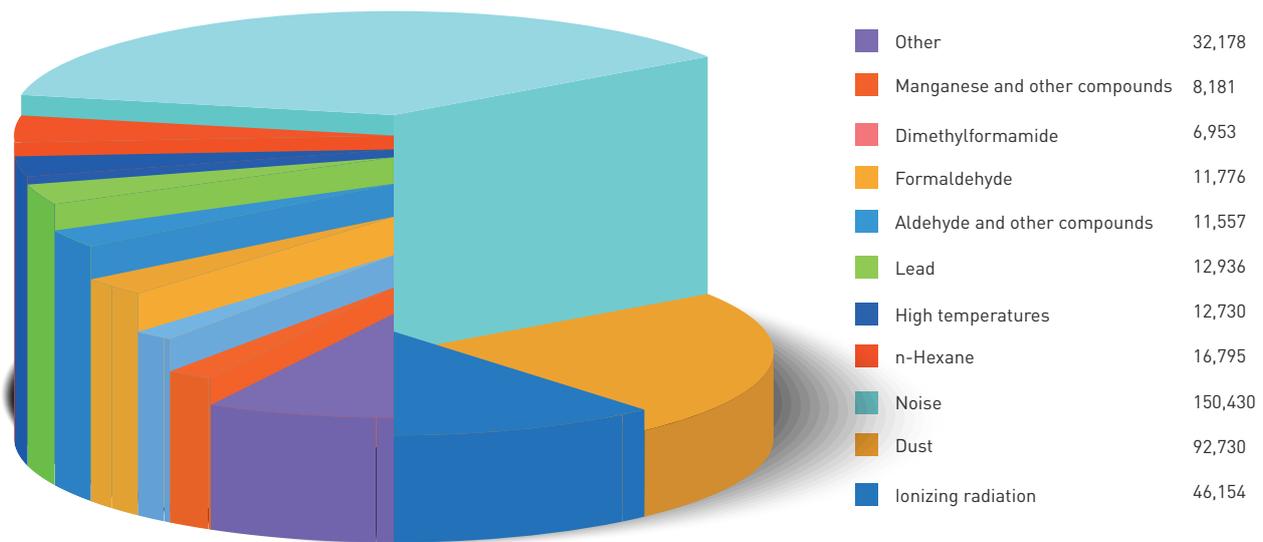
### **Improvement of the quality of monitoring to ensure accurate knowledge of actual exposure to hazards**

Monitoring of the work environment is an important basis for understanding exposure to hazards in workers' operating environments and ensuring that the dose of exposure to hazards remains lower than the legally stipulated permissible exposure limit.

OSHA has continued to strengthen the quality and effectiveness of job site monitoring, and asks labor inspection institutions to audit the job site monitoring agencies and survey exposure to hazardous materials in workplaces. In 2021 there was auditing of monitoring operations on 114 occasions, and 889 samples were gathered and analyzed.

At the same time, OSHA promoted a program for enhancing the capabilities of 25 occupational hygiene laboratories to ensure that the management and technical capabilities of such laboratories conform to international standards in order to strengthen the quality of monitoring conducted by monitoring agencies.





■ Number of special health examinations in 2021.

### Promotion of Health Services to Protect Workers' Health Rights and Interests

#### Strengthening protection of workers' health by combining information management with visits by experts

Labor health examinations are a critical link in the "occupational health services" system. The "Occupational Safety and Health Act" specifies that employers must regularly offer their workers general, special, or specified-item health examinations, which workers have the obligation to undergo. These examinations are an important basis for employers to assign workers to jobs and conduct workplace health management.

Healthcare institutions accredited by the Ministry of Labor to conduct examinations of workers' physical condition and health are required to

report the results of special health examinations to the national "Health Check-ups Database" (HCD). As of 2021 reports had been filed on 402,420 examinations, which can serve as reference for OSHA in determining labor health protection policies in the future.

In addition, to ensure that enterprises implement measures to prevent hazards including human factors hazards, burnout from overwork, and workplace violence, in 2021 OSHA implemented the "Special-case Inspection Program to Protect Workers' Physical and Mental Health" at 622 firms. Also in 2021, OSHA subsidized 90 enterprises to improve their work environments and promote the physical and mental health of workers, with subsidies totaling more than NT\$17 million.

### Protection of workers' health by increasing healthcare coverage

In December 2021 OSHA amended the "Regulations of the Labor Health Protection" to increase healthcare coverage in workplaces. The requirement for enterprises to have in-house professional healthcare personnel was extended from its initial application to firms with 300 or more employees to enterprises with 50 or more employees that have operations that are especially hazardous to health.

Considering that small and medium sized enterprises (SMEs) have fewer resources, in order to assist employers in undertaking health management and occupational disease prevention, OSHA promoted the "One-site Health Service Subsidy Plan for Small and Medium Enterprises" This provides for subsidies to enterprises with 299 or fewer employees to employ or contract with professional healthcare personnel to provide on-site health services as well

as to assist in strengthening workplace disease prevention measures. In 2021 subsidies totaling more than NT\$150 million were provided to enterprises on 3,969 occasions.

### Expansion of on-site services to improve healthcare

If there are multiple channels to assist SMEs in protection of workers' health, more can be accomplished. This is why OSHA has not only continued to support the regional Workers' Health Services Centers in northern, middle, and southern Taiwan in providing on-site guidance including workplace hazard evaluations, labor health management advice, and methods to prevent work-related disease (in accordance with the unique nature and needs of different enterprises and industries), at the same time these Centers arrange individual health consultations, and fitness-for-work assesment and job suggestions for workers.





The "Eastern Regional Workers' Health Services Center" was founded to expand related services and capabilities.

In 2021 OSHA set up the "Eastern Regional Workers' Health Services Center" to improve the accessibility of labor health services there. In 2021 OSHA provided services or guidance to SMEs on 636 occasions, serving a total of 65,026 workers.

In recent years OSHA has continued to establish cooperation models with enterprises with outstanding OSH records, using large companies as models to guide OSH Families to improve labor health services. Through combining the resources of relevant institutions, providing subsidies for improvement, and development of tools and guidance measures, OSHA has helped industries to improve their work environments. The national labor

healthcare coverage rate rose from 19.67% in 2016 to 51.7% in 2021.

### **Expansion of service capabilities through training of diversified professional manpower**

In 2021 OSHA continued to train professional healthcare personnel to expand labor health services capabilities. From 2011 through 2021, OSHA trained 1,879 doctors and 21,728 nurses to earn qualifications to provide occupational health services. In 2020 OSHA also cooperated with relevant organizations to offer 128 sessions of on-the-job education and training (including for workplace health risk assessments, crisis response for workplace illegal infringement, and the operation and use of the workers'

health services e-Tool) with 5,483 participants, to help personnel keep their professional abilities up to date and provide optimum health services.

### Protecting the Workplace Safety of Night-Shift Workers

A number of factors drew attention to the issue of the occupational safety of night-shift workers. One was Interpretation 807 of the Constitutional Court of the ROC, issued on 20 August 2021, which declared that Paragraph 1 of Article 49 of the "Labor Standards Act," which stipulated restrictions on night-shift work for women, was unconstitutional and invalid. Also, during the period of the upgraded alert level for the COVID-19 pandemic, there were

a number of incidents of employees at convenience stores being threatened or harmed when they tried to persuade citizens to comply with epidemic prevention rules.

Because there are greater hazards to night-shift work, on 30 November 2021 OSHA issued the "Guidelines for the Safety and Health of Night-Shift Workers in Workplaces." These were provided to enterprises so that they can, based on the special features of their business and practical needs, identify possible hazards of night-shift work and, after conducting risk assessments, adopt appropriate protective and control measures when reasonable and feasible.



A labor inspector conducts a special inspection of the workplace safety and health of night-shift workers.





Photo of an enterprise which applied for subsidies to improve its work environment before the improvements.



Photo of an enterprise which applied for subsidies to improve its work environment after the improvements.

## Assisting the Transformation of 3D Industries

### Guidance for improvement at 3D industries to fulfill their social responsibilities

There are about 58,000 firms with 3D (dirty, difficult, and/or dangerous) production processes in Taiwan, and although most are SMEs, they have total production value of nearly NT\$2.9 trillion, making them an essential pillar of Taiwan's economy. However, because their production processes are characterized by 3D features, most Taiwanese are unwilling to work in them, so such firms face the problems of long-term labor shortages, difficulty retaining talented personnel, and aging of their workforces.

In order to resolve these problems, OSHA, through cooperation between industry, government and academia (with investment by firms, interagency resources integration, and technical support from scholars and experts), assists 3D enterprises to achieve multiple goals including improving their work environments, raising competitiveness, and promoting employment. As of 2021 OSHA had guided 623 firms and subsidized 212 companies in traditional industries to improve their work environments and transform their production processes. Subsidies totaled about NT\$210 million, while enterprises invested about NT\$2.68 billion of their own capital.



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### **Comprehensive Strategy to Protect Workers Who Have Suffered Occupational Accidents**

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#### **Diagnostic and Treatment Services for Occupational Diseases and Injuries**

#### **Complete network coverage for occupational diseases and injuries (ODIs)**

In 2002 the Ministry of Labor (MOL) established Occupational Disease and Injury Prevention Service Centers (ODIPSCs) in major medical centers in northern, central, southern, and eastern Taiwan. Moreover, starting in 2007 the MOL began building a system of regional network hospitals to create a nationwide ODI diagnostic and treatment network. Taking into account

the numbers of workers and the special characteristics of industries in each region, as of 2021 there were a total of 10 ODIPSCs and 86 network hospitals to provide workers with easily accessible ODI services including prevention, diagnosis, evaluation, rehabilitation, consultations, and referrals.

In order to upgrade the quality of diagnostic and treatment services for ODIs in Taiwan, an ODI reporting system was set up for the ODIPSCs in 2007 and all ODIPSCs and network hospitals fall within the reporting system. The system facilitates tasks like developing the national ODI services network, building uniform service quality, and assisting in identification and investigations of occupational diseases.

### ODIPSCs at the front lines for workers who have suffered occupational accidents (including illnesses)

At present ODIPSCs provide the following services:

- Easily accessible ODI services including prevention, diagnosis, evaluation, rehabilitation, consultations, and referrals: ODIPSCs provide these ODI services in order to prevent the occurrence of occupational diseases among workers and upgrade the accessibility of services sought by workers in relation to ODIs.
- Construction of regional networks for ODIs: ODIPSCs cooperate with other units in the hospitals in which they are located and with other healthcare or rehabilitation institutions in their regions to create regional networks of ODI services, and assist in guiding these regional networks to offer services.
- Occupational disease investigations and case reporting of ODIs.
- Development of special services for ODI prevention and rehabilitation.

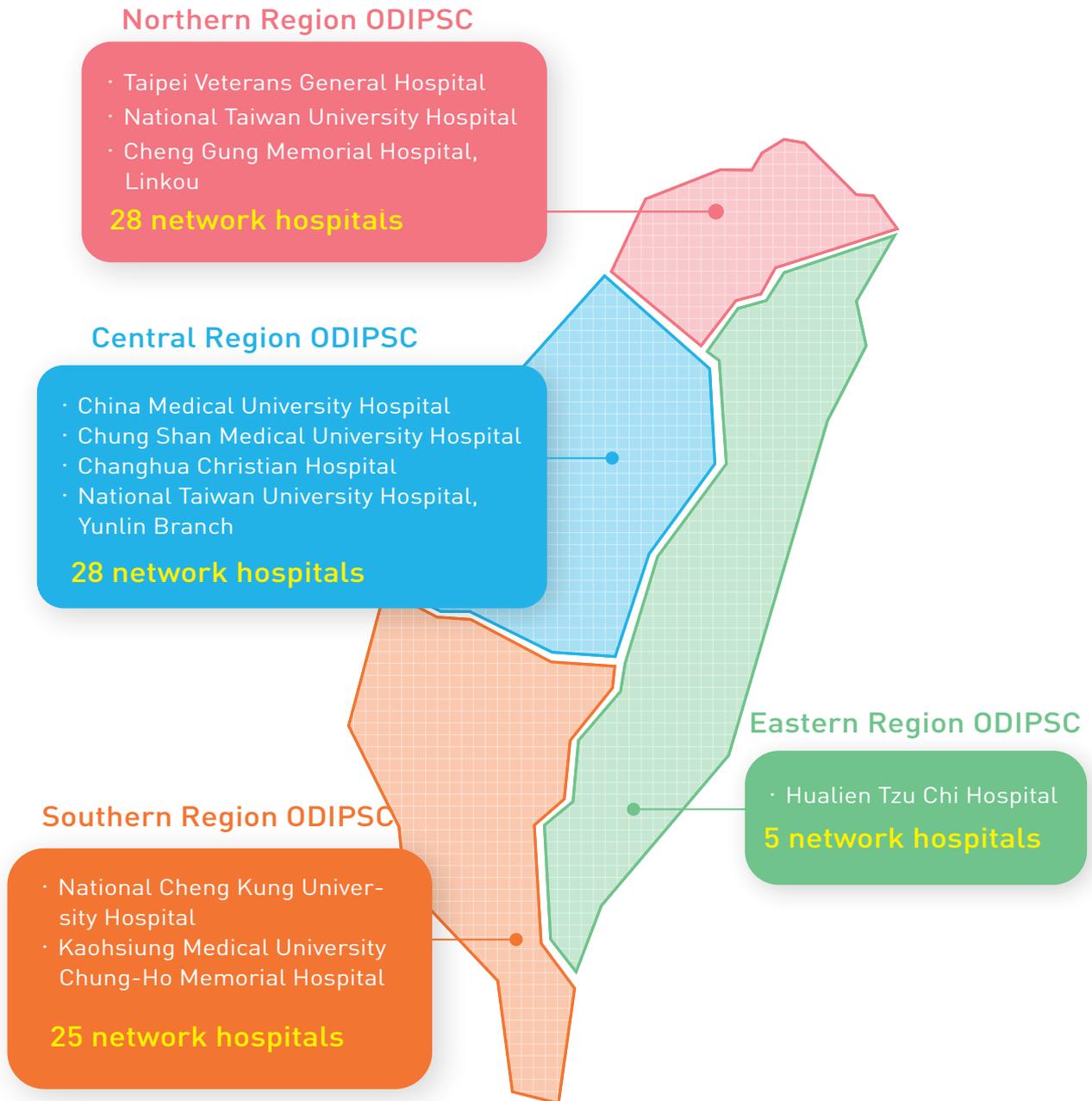


ODIPSC personnel collect exposure data at a workplace with a suspected case of occupational disease.



An ODIPSC doctor holding a clinic session.

Regional Occupational Disease and Injury Prevention Service Centers (ODIPSCs) and number of network hospitals.



For access to ODIPSC and network hospital information, please scan the QR Code (Occupational Disease and Injury Management Service Center).



### Careful investigation of indicator cases through occupational disease appraisal

In order to protect the rights and interests of workers who have suffered ODIs and provide timely assistance, workers suspected to be suffering ODIs and who have joined Labor Insurance can apply to the Bureau of Labor Insurance for compensation. In addition, based on Article 13 of the "Act for Protecting Worker of Occupational Accidents," workers can apply to the competent authority in local (municipal, city, and county) governments for an appraisal of an occupational disease.

If the local competent authority has difficulty in appraising an occupational disease, or if the worker or employer has an objection to its appraisal outcome, or if Labor Insurance agencies believe that it is necessary in the process of appraising an occupational disease, then an appeal can be filed (with attachment of relevant data) with the Ministry of Labor. (At present OSHA serves as the secretariat for the occupational disease appraisal committee.)

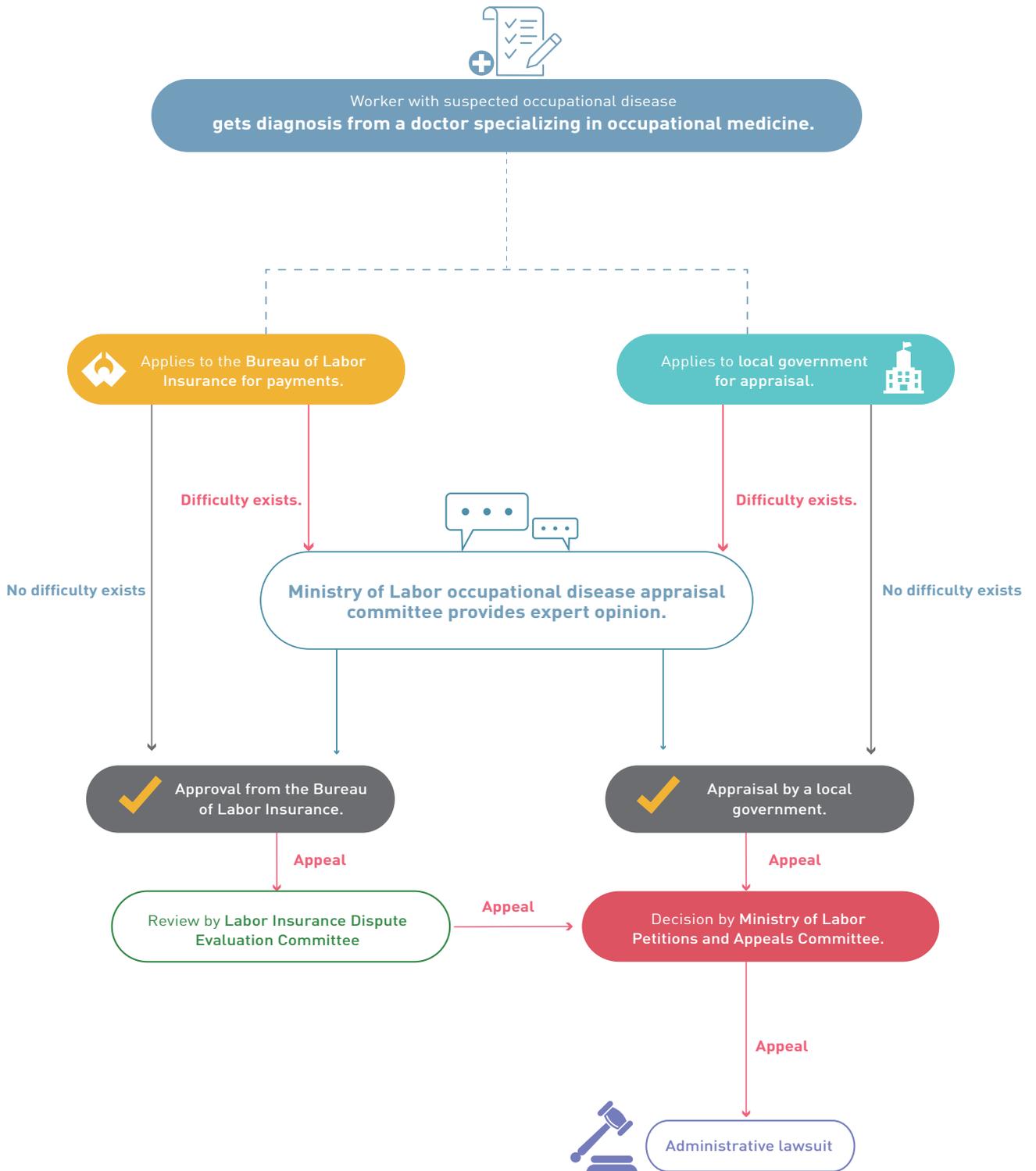
With the coming into effect on 1 May 2022 of the "Labor Occupational Accident Insurance and Protection Act" (superseding the "Act for Protecting Worker of Occupational Accidents"), the occupational disease appraisal system will be based on article 75 of this Act. The system will be a "single track centralized appraisal system." When an insured person has been diagnosed with an occupational disease by a physician specializing in occupational medicine

in an accredited medical institution and there is a dispute over the Labor Insurance payment, that person can seek an appraisal. However, there is no longer any mechanism for applying simultaneously for an occupational disease appraisal by the local competent authority for labor affairs. Instead, the central competent authority shall, following de-identification, analyze and reveal the result of the occupational disease appraisal.

From 2014 through 2021 a total of 100 cases of occupational disease appraisal were handled. Of these, the largest number were for musculoskeletal disorders (including lumbar and cervical vertebrae), with 38 cases (38%). This was followed by cerebrovascular and cardiovascular disease, with 20 cases (20%); psychological illnesses, with 10 cases (10%); occupational cancers, with 10 cases (10%); neuropathy, with 5 cases (5%); and other categories, with 17 cases (17%).

### Strengthened referral and reporting mechanisms to expand services to workers who have suffered occupational accidents

In response to possible underestimation of occupational diseases in Taiwan, in 2008 OSHA established the "Occupational Diseases and Injuries Reporting System," which includes each regional ODIPSC and its network hospitals. OSHA also has continued to require each ODIPSC to strengthen the reporting and referral



Appraisal and appeals process in cases of suspected occupational disease. (To be changed into a single-track system as of 1 May 2022.)

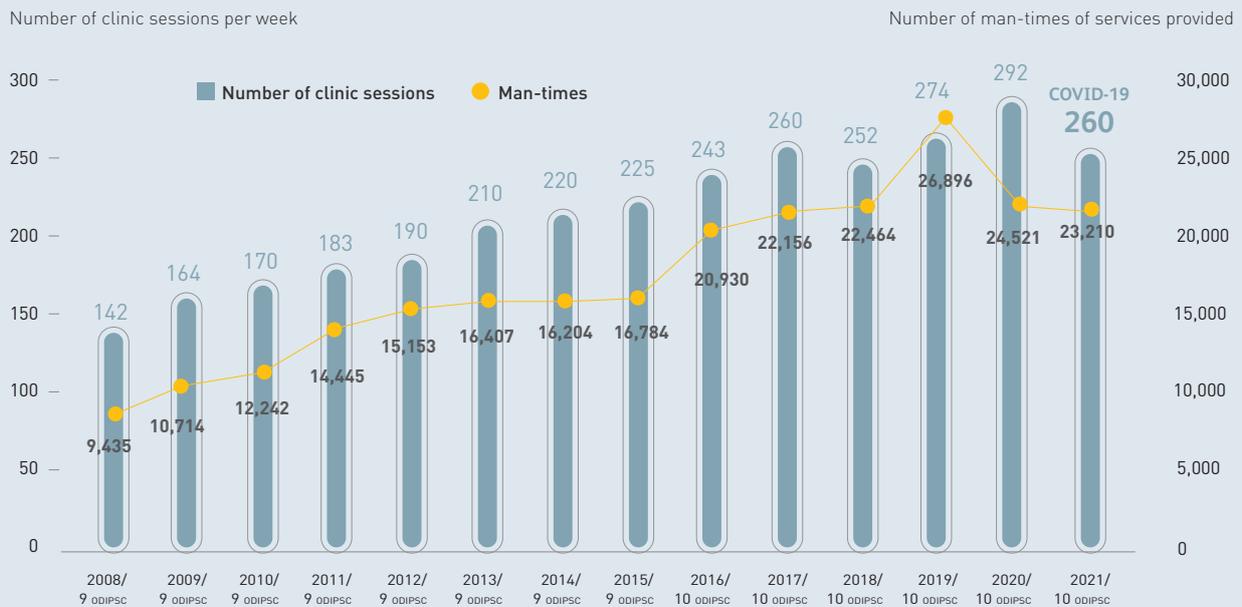
system between departments in hospitals and assist network hospitals with reporting matters. The goal is to increase the rate of discovery and reporting of occupational injuries and diseases. Thanks to the long-term efforts of ODIPSCs, the number of reported cases of occupational diseases rose steadily from 1,600 in 2008 to an average of over 2,000 per year over the last three years.

Statistics for 2021 indicate that ODIPSCs offered an average of 260 clinical sessions for ODIs per week, providing services (including burnout evaluations) 23,210 man-times. In addition, case management services were provided to 2,582 people, ODI consultations to 8,177 people, return-to-work services to 1,380 people, and referral services to 480 people.

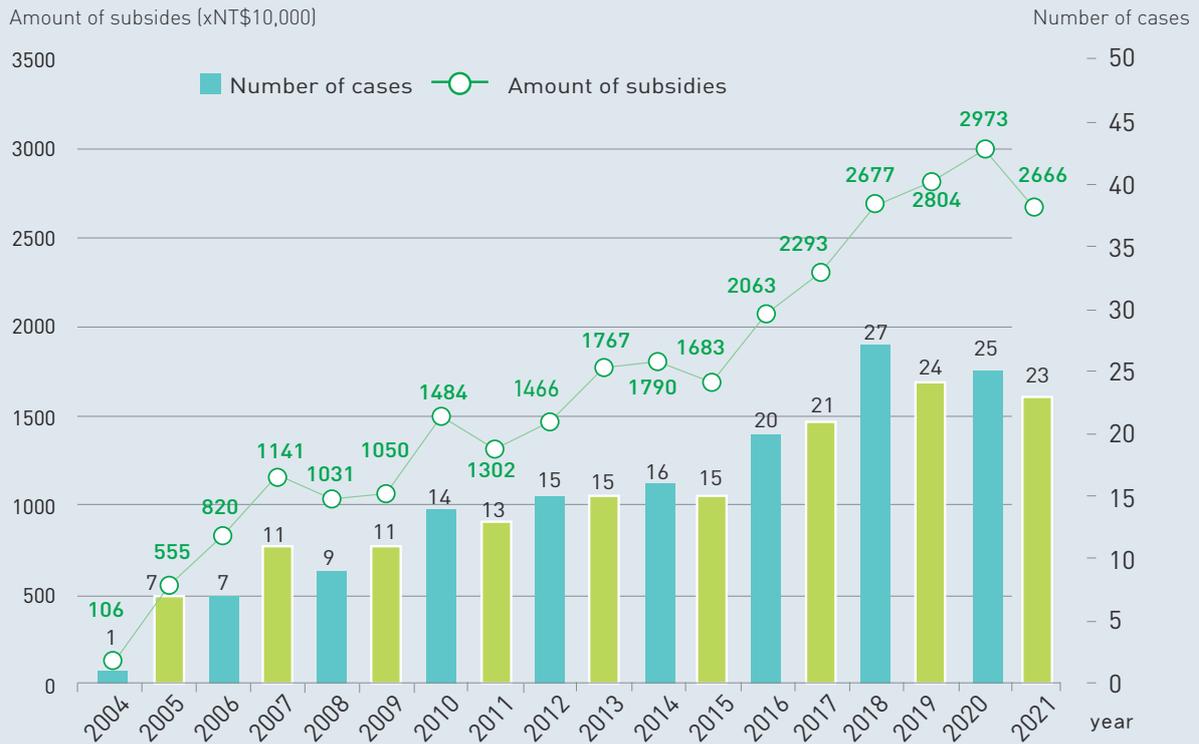
## Subsidies for Occupational Accidents

### Numerous occupational accident subsidies to provide peace of mind to the injured and ill

Since the coming into effect of the "Act for Protecting Worker of Occupational Accidents" on 28 April 2002, insured workers who have suffered occupational accidents have been able to receive a variety of payments from the Bureau of Labor Insurance of the Ministry of Labor. (Note that herein "occupational accidents" refers to both injuries and illnesses.) After collecting these payments, they can also 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.



Number of clinic session and man-times of services provided per week at ODIPSCs over the years.



Number of cases of subsidies for occupational rehabilitation for workers who have suffered occupational accidents, and amount of such subsidies, over the years.

In addition, in cases in which a worker is diagnosed by a doctor as having an occupational disease following the termination of their coverage under Labor Insurance, and the onset of the disease occurred while the worker was still covered by Labor Insurance, and moreover the worker has not collected Labor Insurance payments and is unable to continue to work, he/she can apply to collect the occupational disease living allowance for persons who are not covered by Labor Insurance.

With respect to 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-taking subsidy, and survivors' allowance. In addition, if an employed worker who has not joined Labor Insurance suffers 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 sufficient compensation from the employer, he/she may apply for the fatality subsidy or the disability subsidy.



Occupational rehabilitation services institutions nationwide.

In 2021 there were 2,805 cases in which subsidies were approved for workers both covered and not covered by Labor Insurance, with subsidies totaling NT\$256.99 million.

### **Appropriation of funding for rehabilitation subsidies to assist workers who have suffered occupational accidents to return to work**

To help workers who have suffered occupational accidents (or "affected workers") 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 2021 subsidies were approved for 23 organizations to provide services like psychological counseling and social

adjustment, ability-to-work evaluations and training, occupational guidance and evaluations, and job accommodation. (Including cases carried over from 2020, 25 organizations provided such services.) These organizations offered timely and appropriate assistance to meet the circumstances and needs of affected workers. In 2021 they served about 605 workers, with subsidies totaling NT\$26.67 million. Thanks to active participation by affected workers, the return-to-work rate was 80%.

### **Rehabilitation and Return to Work after Occupational Accidents**

#### **Establishing a return-to-work management center, prioritizing return-to-work services**

OSHA aims to design and provide the most appropriate return-to-work programs for workers who have suffered occupational accidents and to ensure the quality of services provided by personnel currently assisting affected workers to return to the workplace.



Simulated job training strengthens the work skills of individuals.



The 2021 opening ceremony for the Return-to-Work Services Management Center for Work-Related Injured Workers.

With these goals in mind, in 2021, in addition to continuing to provide guidance on services to rehabilitation institutions, OSHA also integrated the management of services provided by local governments to affected workers in order to improve the quality of rehabilitation services for such workers. Also, in coordination with the coming into effect of the "Labor Occupational Accident Insurance and Protection Act," OSHA implemented the "Program for A Return-to-Work Services Management Center for Work-Related Injured Workers," in order to create an institutional framework for tasks such as preliminary work for provision of rehabilitation services to affected workers and promotion of related policies and programs.

In 2021 three new institutions were added to provide occupational

rehabilitation services, including in Taitung and offshore islands, which can not only enhance service capabilities but also provide easily accessible and convenient services for affected workers.

### **Working with Non-Governmental Groups to Enhance Occupational Accident Prevention Competency**

Based on the provisions for prevention of occupational accidents in the "Act for Protecting Worker of Occupational Accidents," in 2021 OSHA subsidized a total of 16 organizations to hold a total of 80 OSH awareness-raising events, with 4,800 participants. In addition, OSHA subsidized two organizations to undertake research on topics like prevention of occupational accidents and diseases. Total subsidies were about NT\$2.69 million.

## Progressively Extending the National Case Manager System to Assist Workers Who Have Suffered Occupational Accidents

### The "Injured Workers Assistance Program"

Under the "Injured Workers Assistance Program," there are 53 case managers employed in 19 local governments nationwide, and

they provide individualized and in-depth services to workers who have suffered occupational accidents. At the same time, they link workers to resources including social welfare and employment services, support affected workers and their families in getting through hard times, and assist such workers to return to the workplace. Services provided by case managers include three main goals:



■ Promotion of occupational rehabilitation services.



Case manager holds an activity to raise awareness about the rights of workers who have suffered occupational accidents.

### Integrating ODI diagnosis and treatment information with reporting information to provide outstanding services

Most case managers for workers who have suffered occupational accidents have backgrounds in social work, social welfare, psychological counseling, and employment services. They can effectively use their expertise in social work to establish service relationships and provide individuals with pertinent services, and they can also actively integrate regional service resources to assist the families of affected workers.

To strengthen the effectiveness of services, OSHA established the "Integrated Information Management System for Services for Work-Related Injured Workers." This systematically assists case managers to make reports on individuals' service situations and use the system to link to resources

related to occupational rehabilitation services, thereby achieving the goals of following up affected workers' return to work, helping them adjust socially, and protecting their labor rights and interests. OSHA is currently planning to incorporate ODI diagnosis and treatment as well as reporting information into the system, to provide single-window one-stop fully integrated services to affected workers.

Since the establishment of the "Injured Workers Assistance Program" in 2008 through 2021, there were a total of 32,309 cases of services provided to workers who have suffered occupational accidents and their families. Services including consultations on workers' rights and interests, legal assistance, labor-management dispute resolution, economic subsidies, psychological support and guidance, restoration of occupational skills, occupational

rehabilitation, and employment services were provided 1,156,905 man-times.

In addition, to care for the families of workers who lost their lives in occupational accidents, based on the "Directions for the Ministry of Labor to Provide Condolence Payments to the Families of Work-Related Dead Workers," a condolence payment of NT\$100,000 is made to the family of each such worker in the name of the Minister of Labor to assist them with follow-up matters that require urgent attention.

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## Protection of Specified Groups and Building a Culture of Workplace Safety and Health

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### Protection of Specified Groups

#### Concern for low birthrates, protection of maternal health and the future of the nation

In order to provide enterprises and working pregnant women or new mothers with consultations on health protection and suggestions for suitable work, OSHA has commissioned various regional Workers' Health Services Centers and Occupational Disease and Injury Prevention Service Centers to provide easily accessible related health services. In 2021 these services covered more than 28,000 female workers.

Moreover, in coordination with amendments to the "Regulations of the Maternity Health Protection at the Workplace," in February 2021 OSHA amended the "Guidance of Maternal Health Protection at Workplaces." Also, after referring to international health hazard categorization databases, OSHA expanded the list of "substances that are toxic for reproduction or



A case manager arranges for a home visit by a lawyer.

mutagenic" from 20 to 29 listed types of substances. In addition, OSHA held 19 learning activities on maternal health protection, with nearly 800 participants. Through pro-active on-site guidance and awareness-raising, OSHA aims to provide pregnant women and new mothers with peace of mind in the workplace.

#### Protection of middle-aged and elderly workers

To build a culture of workplaces friendly to middle-aged and elderly workers and ensure the safety and health of such workers in the workplace, in 2021 OSHA identified nine model enterprises for health services for middle-aged and elderly workers, arranging for subsidies and for teams of experts to provide on-site guidance. Services included: improvement of work environments, adjustment of operational processes, and labor health consultations. Through the creation of examples for health services for middle-aged and elderly workers and guidance and consultation activities for the safety and health of such workers, OSHA encouraged employers to emphasize finding suitable jobs and health maintenance for them.



A doctor at a Workers' Health Services Center assists a middle-aged worker with a suitability-for-work assessment.

### Interagency cooperation to protect the labor rights and interests of young people

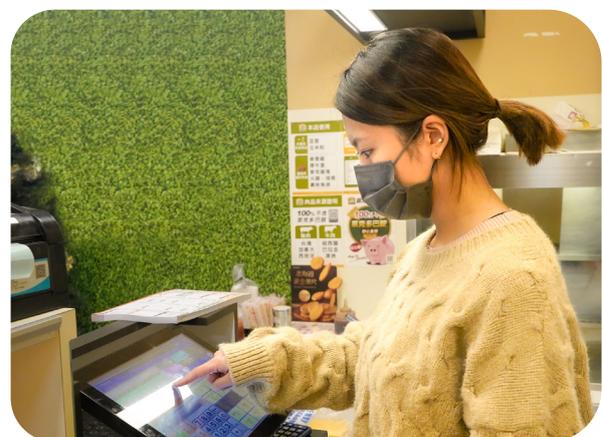
Young people are the foundation for the sustainable development of the nation. During the stage when young people become physically and psychologically mature, they need comprehensive attention and assistance from the government. To protect workers under 18 and ensure their OSH rights in the workplace, OSHA regularly convenes the "Task Force on the Workplace Safety and Health Rights and Interests of Juveniles." It includes OSH experts, representatives of juveniles, organizations related to children and young people, and representatives of government agencies, and continually cooperates with government educational and social agencies on issues such as "employment guidance and assistance" and "questionnaire surveys on the lives of young people." With respect to school dropouts there is a mechanism to integrate interagency opinions to implement policies, with the authorized

agencies continually working to ensure the OSH of young people.

Besides the above measures, OSHA has incorporated youth OSH into the key points for labor supervision and inspection. In 2021, OSHA continued to undertake youth OSH inspections in industries which employ relatively large numbers of young people under 18 (such as gas stations, the food and beverage industry, large-scale stores, and convenience stores). There were 1,686 such inspections, and 1,500 special inspections of working conditions for students with side jobs and part-time workers.

### Protection of foreign migrant workers from workplace hazards through awareness-raising

OSHA has endeavored to protect the OSH of foreign migrant workers through measures like implementation of self-management and strengthening of machinery safety. Moreover, in order to strengthen the OSH awareness of migrant workers, there is a "special area for OSH education for foreign migrant workers" on OSHA's official website, which provides OSH awareness-raising posters and stickers.



Concern for young workers shown by the Ministry of Labor.

Meanwhile, OSHA has continually expanded classes on its OSH digital learning platform, and as of 2021 uploaded 20 digital classes (including five on hazards in the manufacturing sector, 10 on hazards in the construction industry, and five on other OSH topics) and translated these into four different languages (English, Indonesian, Thai, and Vietnamese), in order to strengthen the hazard identification skills of migrant workers. In addition, to encourage foreign migrant workers to take online classes in OSH competency, in 2021 there was a prize drawing for workers who had taken these courses, with NT\$500 gift certificates as prizes.

Besides offering in-person and digital classes, OSHA analyzed data for occupational accident payments under Labor Insurance for the past three years, and found that 70% 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, OSHA has 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, high rates of noncompliance, and high incidence of occupational accidents and prioritizing a special program of inspections for disability hazards. Through source management OSHA has supervised enterprises in complying with laws and regulations.

Furthermore, to enable foreign migrant workers to legally operate forklifts and fixed cranes, despite the impact of the COVID-19 pandemic, OSHA coordinated with training institutions which had been evaluated as outstanding to offer "special classes for foreign migrant workers." In 2021 there were 20 classes, training 351 people.



■ The OSH digital learning platform.

## Assisting Enterprises to Enhance Their Occupational Accident Prevention Capabilities

### Refining the Taiwan Occupational Safety and Health Management System

The Taiwan Occupational Safety and Health Management System (TOSHMS) certification system, which has benefitted nearly one million workers, has seen a continual increase in the number of participating enterprises since its launch in 2008. As of 2021, 915 domestic enterprises had received TOSHMS certification, with the number of protected workers increasing from 69,000 to 994,000.

Further analyzing the numbers, of these TOSHMS certified enterprises 855 (93.4%) are Class 1 high-risk enterprises, while the remainder (6.6%) are Class 2 and Class 3 enterprises, showing that high-risk enterprises account for the overwhelming majority of TOSHMS certified firms. In addition, the overall accident index at TOSHMS certified enterprises was lower than in their industries as a whole.

Starting in 2020, OSHA began working with the Taiwan Accreditation Foundation to promote a TOSHMS accreditation program, and as of 2021 there were 11 certification institutions that were accredited under this program. In order to encourage certification institutions to get accredited, in 2021 OSHA held an activity for awarding and publicizing accreditation of TOSHMS certification institutions to raise the visibility in society of institutions and enterprises that want to participate in certification. OSHA also continued

to promote the alignment of Taiwan's supervisory and management standards for TOSHMS certification with international certification mechanisms, to raise the quality and capabilities of certification institutions.

In addition, to strengthen the effectiveness of implementation of domestic OSH management systems and spread awareness about them, in 2021 OSHA held three awareness-raising activities, organized seminars on "practices in risk evaluation" and "practices in incident investigation," and produced easy-to-understand materials and e-cards which were provided to enterprises for reference.

Moreover, OSHA encouraged enterprises that have received the TOSHMS certification to engage in mutual exchanges and sharing of OSH experiences. OSHA pro-actively established TOSHMS promotion associations in northern, central, and southern Taiwan. In 2021 nine educational and learning events and one exhibition of achievements were held, with the number of participating member enterprises increasing by 42.5% over 2020. OSHA also prepared three handbooks of case studies and six sets of management case studies materials, and submitted three articles to journals, in order to leave a more complete record of achievements for future reference.

Furthermore, in order to better understand the promotion and implementation of domestic OSH management systems, OSHA trained 30 labor inspectors to pass the "ISO 45001 Lead Auditor Training Course" and for

the very first time arranged for visits to enterprises with OSH management systems on a trial basis. Visits were made to 30 enterprises where there was supervision of the implementation and promotion of OSH management systems.

### **Education and training to meet labor demand for training**

Education is an important process through which experience is passed down. Not only can education help people avoid making the same mistakes as in the past, it can build on what one's predecessors did to make further advancements. Therefore, based on Article 32 of the "Occupational Safety and Health Act," employers must provide OSH education and training needed for doing jobs properly and preventing accidents.

At present there are 63 occupational categories for which OSH education and training is available. In 2021 there were 421 organizations that conducted OSH training. After deducting various training institutions including enterprises, government-related organizations, schools, and hospitals, there were 152 non-profit organizations, employers' groups, and labor groups that were authorized by local competent authorities to set up occupational training institutions and offer regular training.

In 2021, as a result of the COVID-19 pandemic, OSHA announced that during the period was Taiwan was at epidemic alert Level 3, occupational education and training organizations would have to suspend in-person courses. Meanwhile OSHA permitted some OSH education and training classes to be conducted online through videoconferencing or live streaming, in order to minimize the impact of the epidemic on OSH education and satisfy demand for training.

According to statistics from OSHA's "OSH Education Information Website," in 2021 there were a total of 5,986 education and training classes (including 797 online), with people receiving training 170,000 man-times (including 24,895 online), while there were 7,872 classes of on-the-job education and training (including 964 online), with people receiving training over 270,000 man-times (including 35,653 online). There were 2,042 classes nationwide deferred by the COVID-19 pandemic, affecting 56,618 people.

### **Safety partnerships to advance together toward better OSH**

In order to strive towards the goal of zero occupational accidents, in 2021 the Southern Occupational Safety and Health Center established safety partnerships with the Southern Region Water Resources Office and the 5<sup>th</sup>, 6<sup>th</sup>,

7<sup>th</sup>, and 8<sup>th</sup> River Management Offices of the Water Resources Agency (WRA) of the Ministry of Economic Affairs. The parties promised to combine resources to work together to enhance the level of OSH management at WRA construction sites in southern Taiwan and the Taitung area. They also committed to cooperation on matters including "establishment of OSH management systems," "diagnosis of workplace OSH facilities," and "OSH education and training." Their goals are to comprehensively upgrade self-management capabilities at construction companies and the OSH competency of workers.

In addition, in order to strengthen the safety partnership cooperation mechanism with enterprises and promote mutual aid and OSH cooperation among enterprises, OSHA held the annual evaluations and awards for performance of safety partnerships and OSH promotion associations. OSHA safety partners, OSH

promotion associations, and guidance organizations were invited to attend. The event was divided into two categories: safety partnerships and OSH promotion associations. Competing organizations were compared on a number of criteria, including OSH organizational frameworks, promotion of plan items and active indices (including poster displays), achievements in accident reduction (lagging indicators), promotion of healthy work environments, and creative ideas for accident prevention. Safety partners with outstanding records were selected to serve as benchmark safety partners from which others should be able to learn.

At present, OSHA is working in close cooperation through safety partnerships with four construction projects, four large enterprises, six commercial or industrial associations, and five industrial parks. In the future, OSHA will continue to re-assess, improve, and enhance the substantive beneficial impact of safety partnerships.



Activity for awarding of accreditation to TOSHMS certification institutions.

## Recognition of Role Models with OSH Awards

### Establishment of awards to encourage enterprises and individuals

To establish role models for enterprises, Taiwan offers a number of OSH awards, which can be divided into the "benchmark type" and the "encouragement type." Depending on the category of enterprises or individuals being evaluated and judged, there are the "National Occupational Safety and Health Awards," the "Outstanding Construction Golden Safety Awards," the "Outstanding Workplace Health Services Organizations and Personnel Awards," and the "Awards of Outstanding Occupational Safety and Health Organizations and Individuals."

- **National Occupational Safety and Health Awards**

The National Occupational Safety and Health Awards are the highest awards in the field of OSH. The purpose of these awards is to draw attention to enterprises that have long worked to promote OSH so they can serve as role models from

which domestic industries can learn, which is recognized as the "benchmark type" of award. In 2021 two individuals and 11 enterprises received these awards, of which five (Chi Mei, Macronix, the ASE Group, AU Optronics, and Chemours) won "Benchmark Enterprise Awards," one won a "Small and Medium Enterprise Award," one won an "Investment in Traditional Industries Special Award," and four (including three healthcare institutions and one consulting company) won "Workers' Health Special Awards."

- **Outstanding Workplace Health Services Organizations and Personnel Awards**

OSHA hopes that by drawing attention to organizations and individuals with outstanding workplace health services, not only will this offer positive feedback, it could also inspire other enterprise owners to place emphasis on workers' health rights and interests and take the initiative to work together with the government to promote workplace health. In 2021 five enterprises with outstanding performance and five workers' health services personnel



A group photo including Premier Su Tseng-chang, Minister of Labor Hsu Ming-Chun, and winners of "Benchmark Enterprise Awards" at the National Occupational Safety and Health Awards.

were acknowledged with Outstanding Workplace Health Services Organizations and Personnel Awards.

Winners and experts on relevant practices were invited to the awards ceremony to share their best practices and experiences in promoting health services. The aim was, through exchanges of experiences, to enhance the professional competency of labor health services personnel, build safe and healthy work environments, and promote workers' physical and mental development. OSHA will continue to work with all stakeholders in society to create even safer and healthier work environments for workers and ensure the development and sustainability of a healthy workforce in Taiwan.

- **Awards of Outstanding Occupational Safety and Health Organizations and Individuals**

The Awards of Outstanding Occupational Safety and Health Organizations and Individuals are designed to encourage local enterprises and personnel to actively promote OSH work. In 2021 there were 42 winners of awards for outstanding organizations and 24 winners of awards for outstanding individuals. In addition, because five 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 results.

- **Outstanding Construction Golden Safety Awards**

Faced with a severe outbreak of COVID-19 during 2021, the Outstanding Construction Golden Safety Awards continued to uphold the spirit of environmental protection and used systematic paper-free operations (including online registration to participate, online notification of the process, and downloads



Minister of Labor Hsu Ming-Chun presenting the Outstanding Construction Golden Safety Awards.

of case studies of winners) in order to reduce wastage of paper for participating organizations. This step also took into account participants' health by reducing the risk of contact and transmission in conformity with epidemic prevention policy. It was only because of the collaborative efforts of participating construction teams and judges during the judging process that the awards proceeded so successfully. In 2021 there were 59 competing projects and five individuals. Among the projects there were 11 "Merit" awards and 19 "Honorable Mentions," while for individuals there was one "Merit" award and one "Class A" award.

The Outstanding Construction Golden Safety Awards have been presented for 15 years, and have been getting increasing attention over time. In order to attain the goal of upgrading overall construction site safety culture through recognition of organizations with outstanding safety performance, not only was the theme of the awards presentation ceremony set as "Award for Golden Safety, Leading Workplace Safety," the event was expanded to display the stories of award-winning construction teams and outstanding individuals. The hope was that sharing of the outstanding methods adopted by award-winning organizations to promote OSH would lead other firms to evolve in a positive direction.



## Chapter 4

# International Exchanges

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### Transnational Live Streaming to Share Experiences Despite the COVID-19 Pandemic

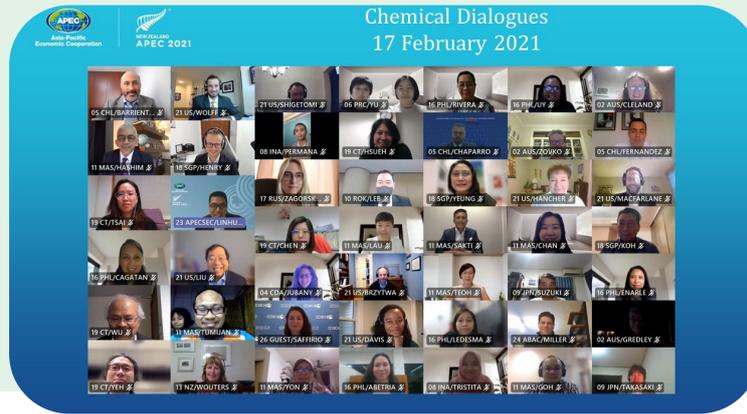
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#### Asia-Pacific Economic Cooperation 2021 Meetings

In 2021, despite the challenges posed by the COVID-19 pandemic, the Occupational Safety and Health Administration (OSHA) continued to strive to participate in numerous international forums and activities related to occupational safety and health (OSH) in order to stay in step with the international community. On 17 to 19 February and 10 to 12 August, respectively, OSHA participated in the Asia-Pacific Economic

Cooperation (APEC) "Chemical Dialogue" at the First and Third "Senior Officials' Meeting," hosted by New Zealand.

At these events OSHA shared Taiwan's approaches to chemical management, including: establishment of an organization specifically in charge of chemical management, harmonization of the national existing chemical inventory (Taiwan Chemical Substance Inventory, TCSI), establishment of a single-window registration system for new chemical substances, and methods to protect confidential information. In this way OSHA demonstrated Taiwan's actions and contributions with respect to this important international cooperation effort.



■ An APEC videoconference.

In addition, OSHA represented Taiwan in taking on the responsibility for the "GHS Implementation Convergence Questionnaire" report involving all APEC members (which was Australia's job in previous years), and submitted the abstract of the report to the "Ministers Responsible for Trade Meeting." In the future OSHA will continue to engage in international exchanges and cooperation through the APEC platform, working hand in hand with other APEC members to promote OSH.

### The 1<sup>st</sup> EU-Taiwan Occupational Safety and Health Cooperation Meeting

As Taiwan's OSH systems and policies have developed, while in the past we merely absorbed the experiences of other countries, today we can also make our own contributions. The "1<sup>st</sup>EU-Taiwan Occupational Safety and Health Cooperation Meeting" was the first cooperation platform arranged between Taiwan and the European

Union to discuss OSH issues. This event, convened by videoconference, permitted exchanges of experiences with countries and organizations with advanced OSH systems, indicating significant progress.

European Agency for Safety and Health at Work (EU-OSHA) Executive Director Christa Sedlatschek led a group of her colleagues to participate, while Taiwan was represented by OSHA Director-General Tzou Tzu-Lien leading a team of colleagues. There were exchanges on the two subjects of "Safeguarding Occupational Safety and Health for Platform Economy Workers" and "Protecting and Providing Rehabilitation Services for Workers Suffering from Occupational Accidents." The two parties engaged in enthusiastic interactions, and it is expected that when the epidemic eases there will be opportunities for face-to-face meetings in the future, so the two parties can devise even better OSH policies and strengthen mutual partnership relations.



■ The EU-Taiwan OSH videoconference.

### The 2<sup>nd</sup> Taiwan-UK Occupational Safety and Health Summit

Continued deepening of the Taiwan-UK safety partnership and promotion of bilateral OSH cooperation between Taiwan and the UK constitutes an important link in OSHA's international

interactions. Therefore, despite the rampant spread of COVID-19 variants, OSHA still held the "2<sup>nd</sup> Taiwan-UK Occupational Safety and Health Summit" on 25 November 2021. Using a videoconference format, the two sides shared OSH policies, promotional strategies, and approaches. There was also discussion of detailed items for future cooperation. The purpose of the Summit was to enhance Taiwan's effectiveness in industrial safety and competitiveness with the ultimate aim of making Taiwan one of the world's leading countries in terms of OSH standards.

## Working with Enterprises to Get in Line with International Practices

### The International Process Safety Conference

On 17 December 2021 OSHA and the Formosa Plastics Group jointly held the "2021 International Process Safety Conference." Wang Qingsheng, professor and director of the Multiscale Process Safety Research Lab at Texas A&M University; Daniel Kats, manager of the Formosa Plastics Group plant in Texas; Chen Yuefeng, senior vice president of Marsh (based in the United States); and the Taiwanese scholar Tsai Ming-Hsiao were asked to discuss their

practical experiences with international and domestic process safety management promotion, AI technology applications, exploration of the causes of accidents, risk banding and rating, process operational hazard analysis, and intelligent monitoring of pipeline equipment corrosion.

Moreover, more than 150 representatives of labor inspection institutions and dozens of companies from Taiwan's petrochemical industry (including CPC Corporation, Chang Chun Group, USI Group, Chi Mei Corporation, China Petrochemical Development Corporation, LCY Group, Formosan Union Chemical Corporation, Grand Pacific Petrochemical Corporation, Ho Tung Chemical Corporation, Oriental Union Chemical Corporation, UPC Technology Corporation, and Dow Chemical Taiwan) were invited to attend. Through exchanges and experience sharing on the subject of international process safety management technology, process safety in Taiwan's petrochemical industry was enhanced and brought in line with international standards.

### The 2021 Annual Seminar on Explosion Prevention and Industrial Safety

OSHA has always worked towards the goals of upgrading explosion prevention technology standards, raising consciousness of industrial safety, and strengthening Taiwan's international integration in the field of explosion prevention. Therefore, from 6 to 7 October 2021 OSHA held the "2021 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



The 2021 International Process Safety Conference.



■ The 2021 Annual Seminar on Explosion Prevention and Industrial Safety.

discussions. Experts from Korea, Poland, and the UK in the fields of explosion prevention technology for electrical equipment and certification were invited to attend, as were related businesspeople and experts from Taiwan. The event served as a platform for building an electrical equipment explosion prevention certification system and for technical exchanges and communication on OSH issues, as participating countries shared their successful practices.

### The International Workshop on Safety for Using Industrial Robots

OSHA held the "International Workshop on Safety for Using Industrial Robots" on 20 October 2021, inviting experts from well-known firms and certification institutions home and abroad with experience in the safety design, manufacturing, and certification of industrial robots to serve as speakers. They shared their views on industrial robot safety solutions, collaborative technology applications, and applicable standards for certification of robots and venues, assisting enterprises to strengthen their hazard identification, evaluation, and control capabilities for industrial robots in order to enhance industrial safety and strengthen accident prevention capabilities.

### 107<sup>th</sup> Convention of the International Association of Industrial Accident Boards and Commissions

On 28 October 2021 OSHA participated in the 2021 Convention of the International Association of Industrial Accident Boards and Commissions (IAIABC) to better understand international rules, practices, and operational experiences related to protection of the rights and interests of workers who have suffered occupational accidents, in order to bring Taiwan's occupational disease and injury subsidy and rehabilitation systems in line with international standards. It was an opportunity to enhance mutual interactions with other nations, and will facilitate the future promotion of relevant tasks by OSHA as well as interactions and information sharing with other countries.

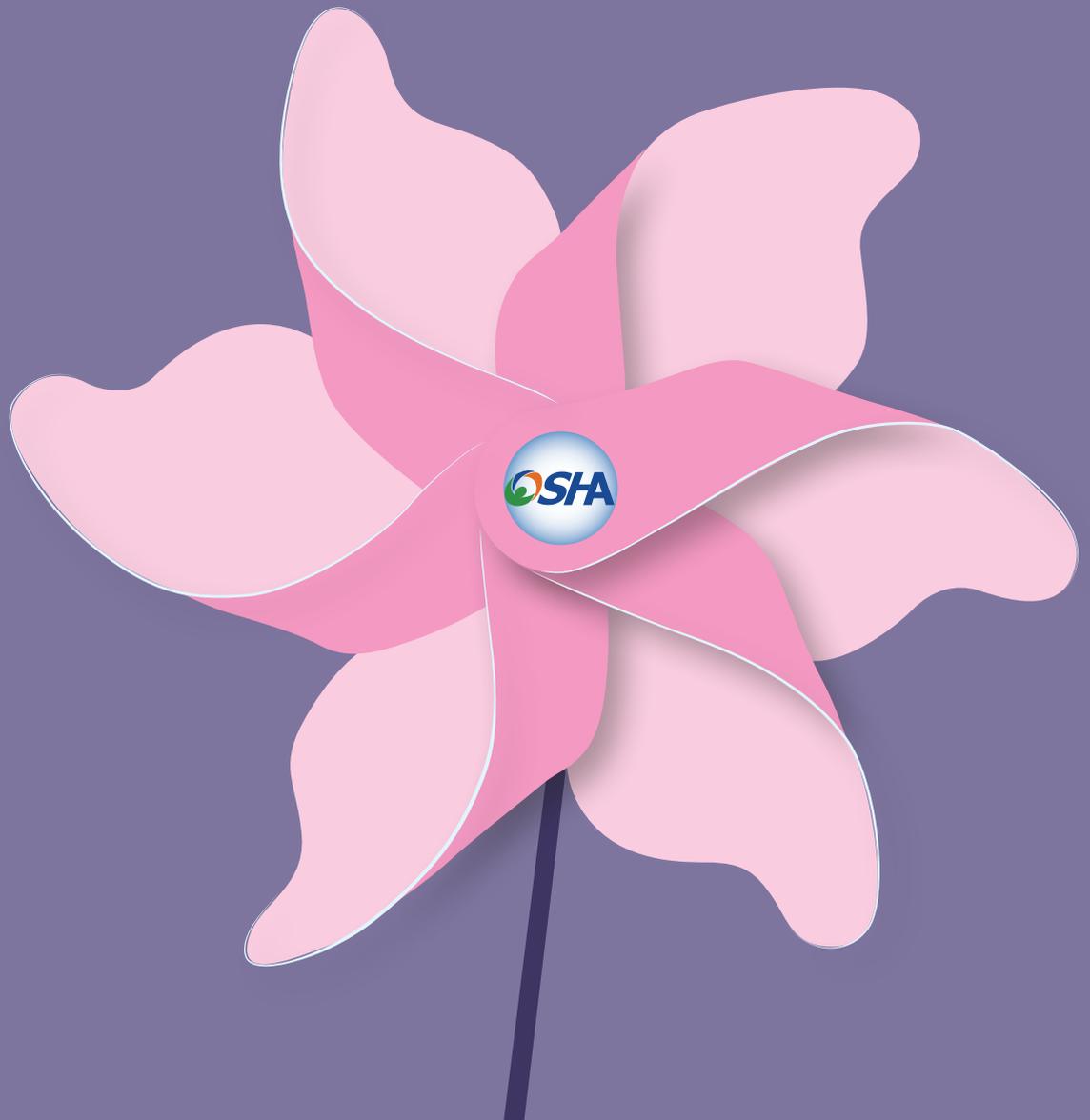


■ The 107<sup>th</sup> Convention of the International Association of Industrial Accident Boards and Commissions.

# Appendix

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- Organization and Services of OSHA
- Occupational Accident Statistics

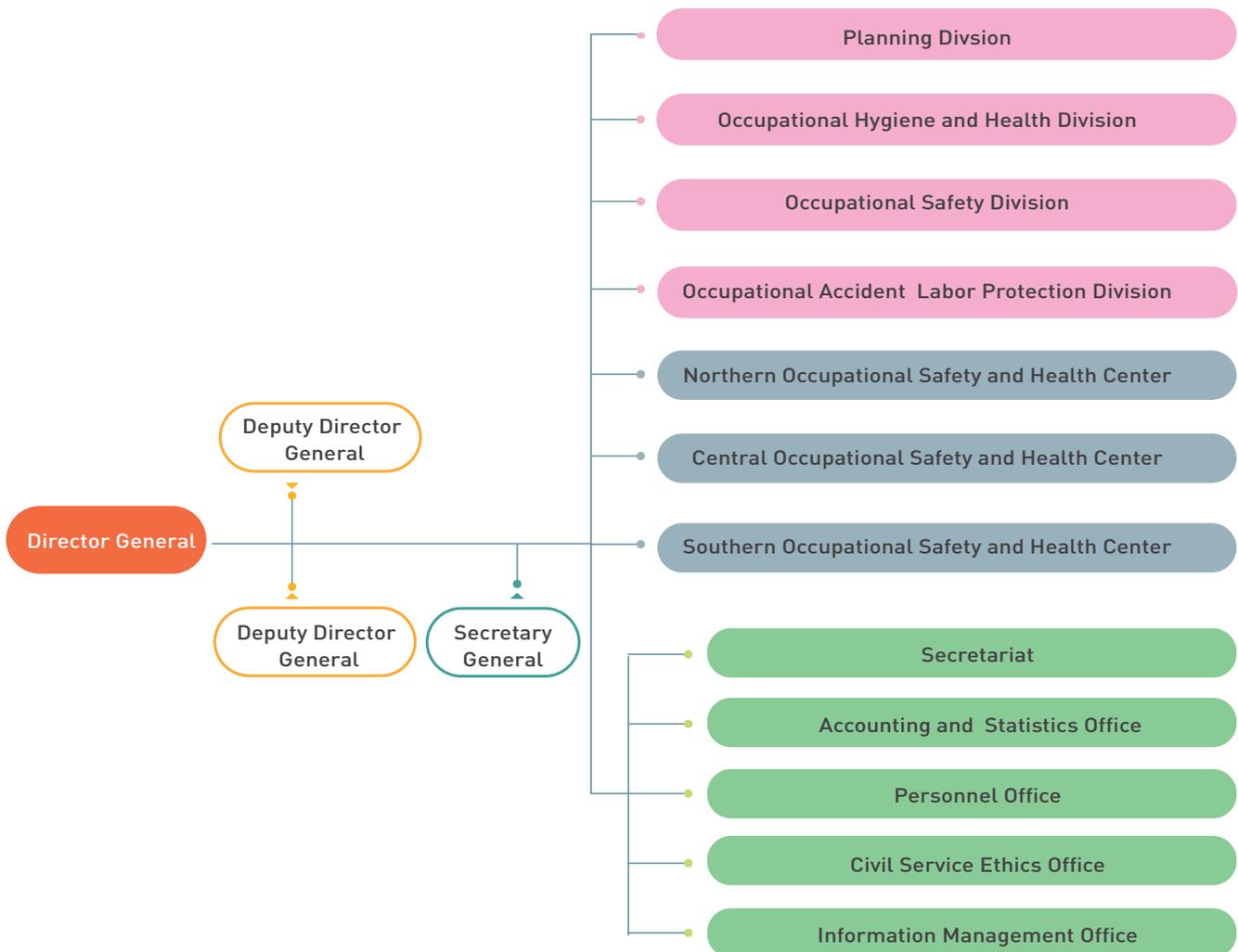


## Organization and Services of OSHA

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.

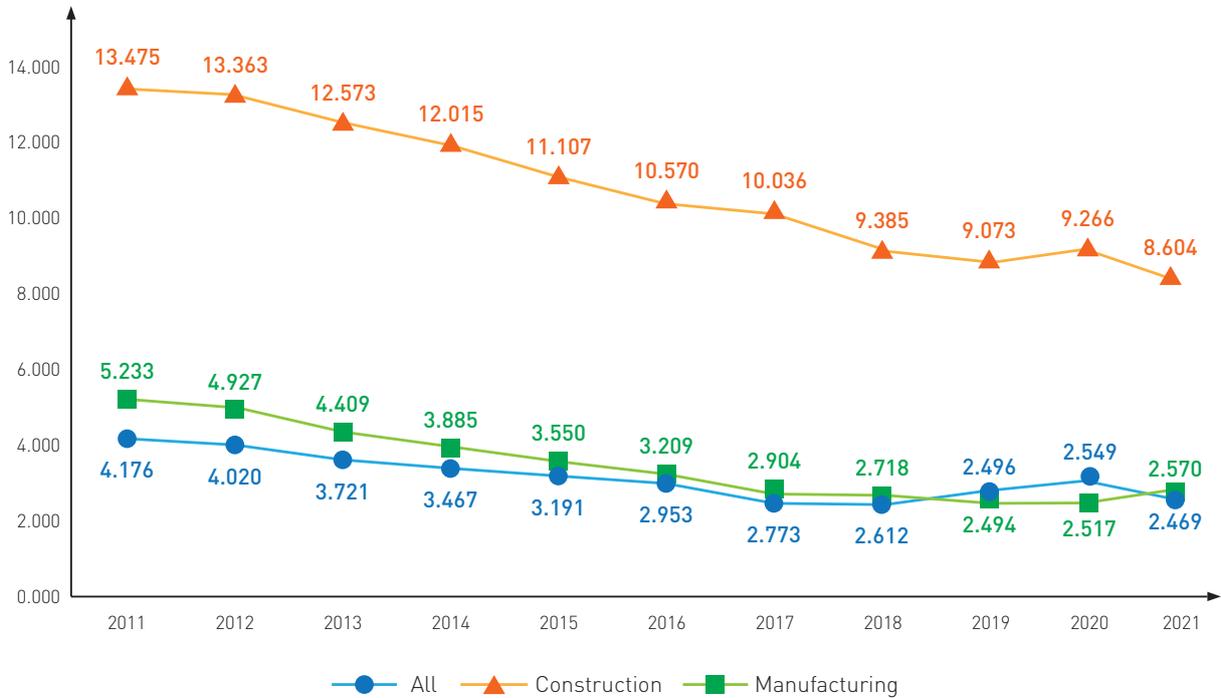
OSHA was founded on February

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 of 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.

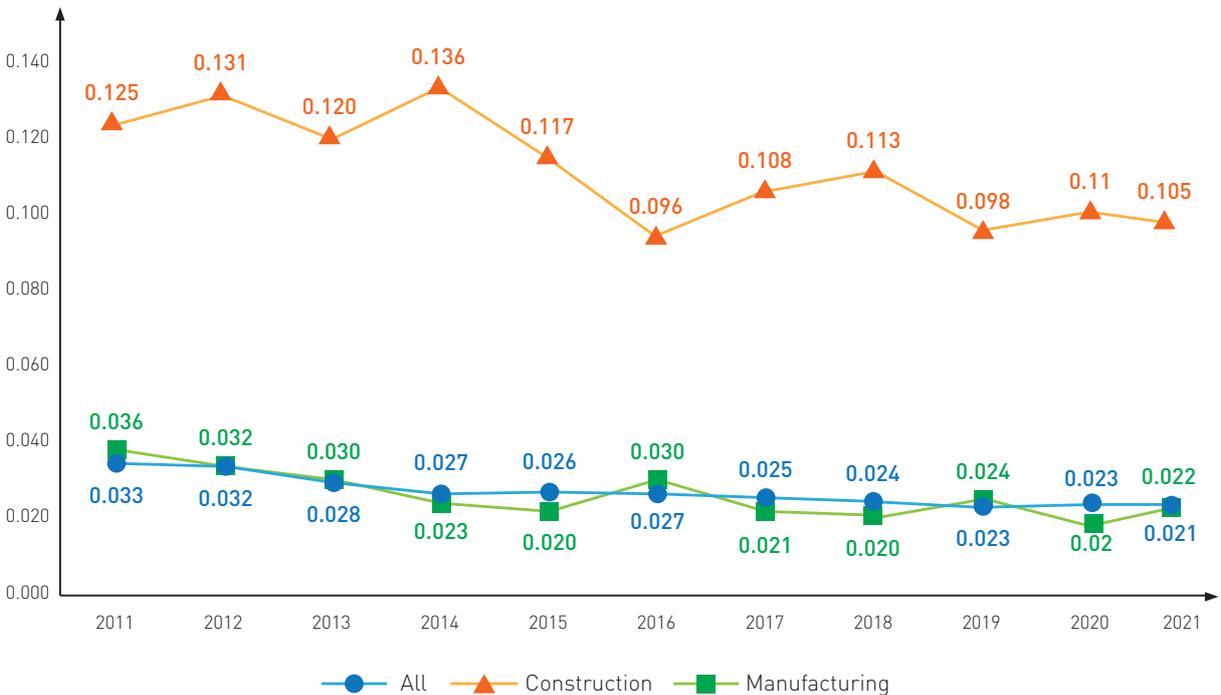


## Occupational Accident Statistics

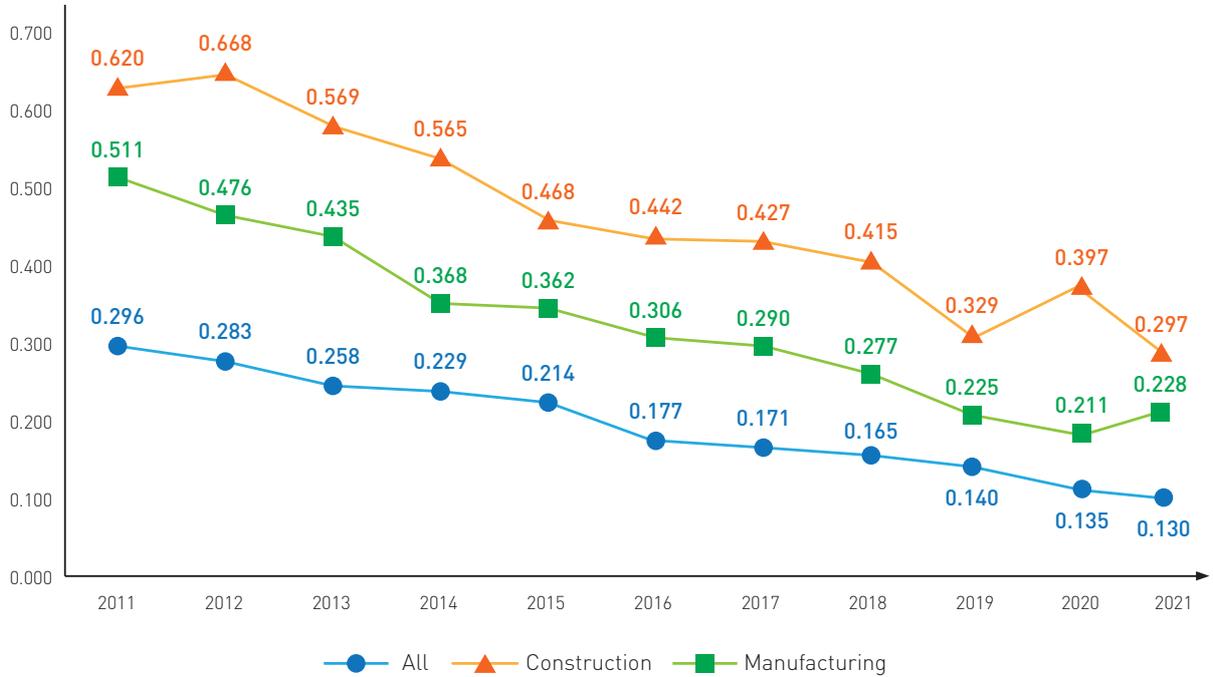
**Fig 1.** Occupational Accident Rate per 1,000 Workers under Labor Insurance Compensation



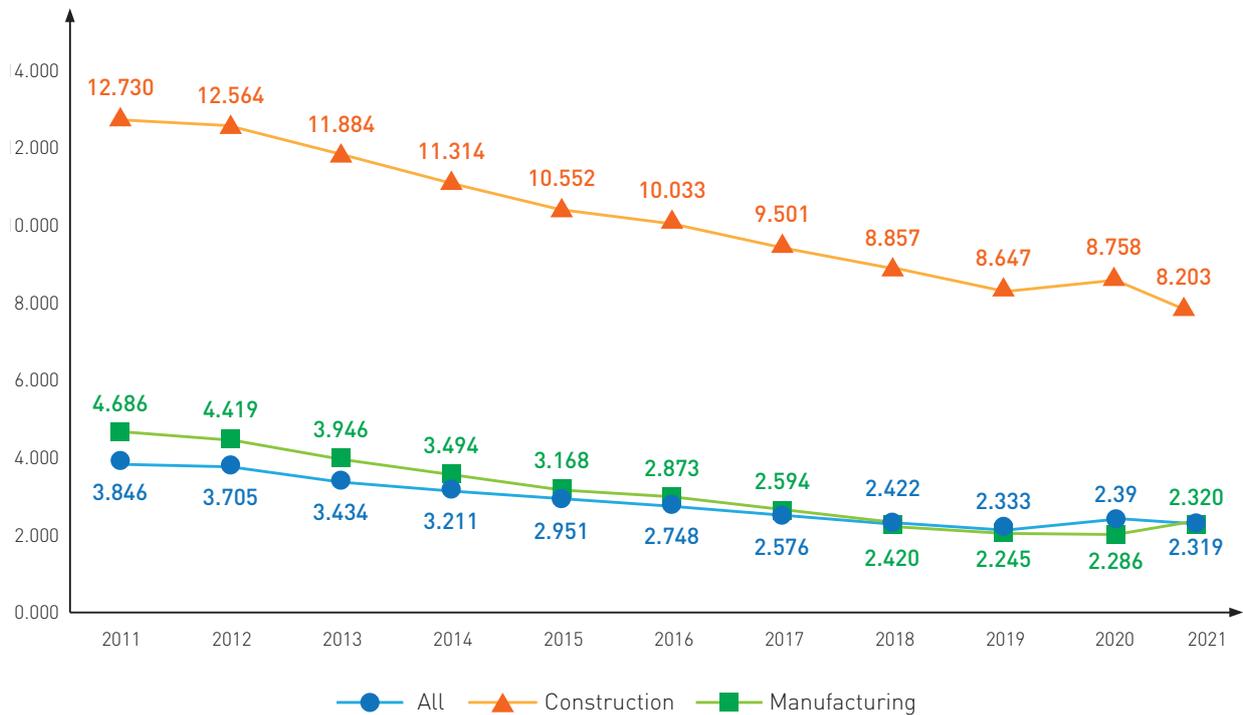
**Fig 2.** Occupational Fatality Rate per 1,000 Workers under Labor Insurance Compensation



**Fig 3. Occupational Disability Rate per 1,000 Workers under Labor Insurance Compensation**



**Fig 4. Occupational Injury Rate per 1,000 Workers under Labor Insurance Compensation**



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