

5.2 Providing a Safe and Healthy Work Environment

5.2.1 Occupational Health and Safety Operations

In addition to complying with Taiwan’s occupational health and safety regulations, Zig Sheng is also actively working toward its goal of zero occupational accidents through its health and safety policy. In 2019, we switched from the OHSAS 18001 occupational health and safety management system to the ISO 45001 in accordance with the requirements of new standards, which covers employees and contractors of the company as “workers” and Zig Sheng as the workplace. We are certified and approved by a neutral third party (DNV Business Assurance) annually, and we continue to perform hazard identification and risk assessment operations every year in accordance with our occupational health and safety risk assessment procedures, and propose preventive management measures to eliminate hazards and reduce risks.

Each of our five plants has an Occupational Health and Safety Committee, which consists of occupational health and safety personnel, plant supervisors, and employee representatives elected through employee-employer meetings (with at least 1/3 of the members being employee representatives). The committee meets every three months to review and adjust occupational health and safety programs and health promotion, so that employee representatives can participate in decisions regarding occupational health and safety and make the implementation of policies more suited to the needs of the employees on site for the health and safety of all employees.

To ensure the health and safety of all workers engaged in business-related operations, we have formulated regulations to regulate the health and safety of employees and contractors, and those regulations have been approved by employee representatives. Our health and safety regulations stipulate the rights and obligations of employees and contractors in terms of operational safety standards, education and training, health education, first aid and disaster relief, and incident notification.

Health education and management measures include:

Zig Sheng strictly abides by the Personal Data Protection Act regarding the collection, handling, and utilization of employees’ health checkup information, and such information is kept by dedicated staff to ensure the safety of our employees’ personal data. For employees who have abnormal results in their health checkup report or suspect they have musculoskeletal or overexertion issues through symptoms they experience, our occupational health nurse will provide health education and arrange a time for employees to meet with the occupational medicine specialist. If the employee is deemed by the doctor to be unsuited for their original post, we will take the doctor’s advice and move the employee to another workplace/post or shorten working hours, and take health management measures.

We take preventive and protective measures against diseases that may be triggered by repetitive work, shift work, night work, etc. We also instruct our employees to report to their supervisors immediately if they feel unwell or abnormal. By providing care in multiple aspects, including in terms of personnel, equipment, environment and regulations, the occupational disease rate at Zig Sheng is 0. For special operation areas (those with noise, dust, or Confined Spaces, etc.), there are visible signs to inform employees of the hazards of the operation area and precautions to take, and require them to wear protective equipment when entering the area to ensure their health and safety.

5.2.2 Hazard Identification and Risk Assessment

(1) Health and Safety Hazard Identification and Risk Assessment

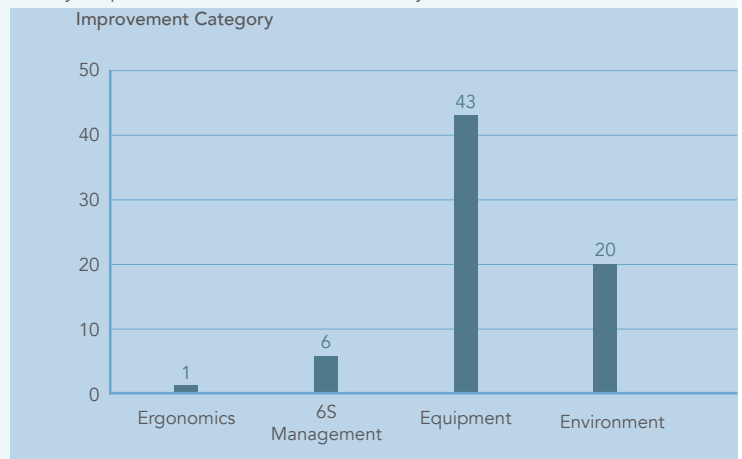
Zig Sheng continues to perform hazard identification and risk assessment on a regular basis each year in accordance with our occupational health and safety risk assessment procedures, and proposes preventive management measures to eliminate hazards and reduce risks.

Workers in each unit analyze the operations and work environment they are responsible for and propose potential hazards in activities, equipment, materials, or the environment. The identified hazards are scored according to their frequency and severity, and the risk matrix is used to determine their risk level. The risk assessment results are submitted to the Occupational safety and health management entities and then control measures are set, including equipment replacement, workflow changes or the addition of new protective devices, etc. Occupational safety and health management entities assists in and checks on the progress of making the improvements.

(2) Occupational Health and Safety Self-management Contest-Self-suggested Areas for Improvement

To establish a good safety culture, Zig Sheng continues to hold the Occupational Health and Safety Self-Management Contest. Through competitions and awards, the contest motivates employees to actively participate in the activities to strengthen the safety awareness of all and to keep work processes safe. Due to the impact of the pandemic, the assessment program is suspended for education and training, internal inspections, while other are kept, such as external safety inspections, unit accidents and injuries, and environmental equipment.

The company encourages employees to take the initiative to identify potential hazards in the workplace, such as false alarms and unsafe working conditions or equipment, and have discussions with their units to propose preventive measures to eliminate the hazards together. We also encourage employees to take the initiative to identify hazards and solve problems so as to strengthen their awareness of the importance of safety in the work environment, and have them manage safety in a proactive manner so that they can work in an excellent environment with peace of mind. In 2022, a total of 70 improvement projects were made, and the categories they fall into are human factors and ergonomics, 6S management, and equipment and environment. Improvements are shown in the image on the right.



Major improvements are as follows:

Before Improvement	After Improvement	Note
		<p>There are no guardrails along the ventilation towers, so guardrails were installed for all of the towers in the premises.</p>
		<p>The quality of coal varies, and if the load of the equipment is increased, the equipment may be damaged. It is necessary for personnel to remove the center partition in the slag discharge machine to check the electric current. To avoid having personnel being electrocuted, an electric current meter was installed so that the personnel can check the electric current visually without having to turn on the distribution board.</p>
		<p>Personnel need to replace filters regularly. Originally, they would have to have one hand hold the filter and the other hand operate the high-pressure washer. The recoil from the column of water is strong and can easily cause injury when the water gun is not held firmly, so the Company made a cleaning rack so that personnel do not have to bend down and the filters are fixed to one place, thus minimizing the occurrence of hazards.</p>
		<p>Numerous pipes are located in the area above the storage tanks. According to production plans, personnel need to climb up to a high place to operate the three-way valves. The improvement method is to move the three-way valves to a location where there is no need to climb up, so as to reduce the risk of falling.</p>
		<p>The oil drum transportation trucks cannot keep the drums in place, and dumping the oil takes effort, so we added a hand-cranked oil drum dumping machine to lessen the burden for our employees and to keep them from sustaining injuries.</p>

5.2.3 Safety Training

Personnel Hazard Awareness Training

To enhance the Company's safety culture and the employees' awareness of health and safety, the Company provides quality education and training. In accordance with the law, we provide occupational health and safety education and training for new recruits, education and training for contractors entering the plants, education and training for current employees, fire drills, special operation training and promotion of health issues, as well as emphasize the employees' ability to carry out their duties in a healthy and safe way. For forklifts, fixed cranes, hazardous equipment or machines and organic solvents, the Company appoints qualified organizations or collaborates with Guanyin Service Center to provide training courses for employees to receive professional training and obtain relevant licenses.

Occupational health and safety courses are planned not only for Taiwanese employees, but also for expatriate employees, who are important target audiences for education at our company. To facilitate effective communication and convey the correct health and safety information, we hire interpreters to assist in the courses.

The Statistic of Occupational Accident

The Company provides employees with a healthy and safe workplace and prevents occupational accidents by formulating a comprehensive accident investigation and prevention program. When an occupational accident or a suspected case of occupational disease occurs in the workplace, an investigation team consisting of occupational health and safety management personnel, plant nurses, occupational medicine specialists, manager of the workplace where the case occurred, labor representatives and victims will come together to investigate the cause of the disaster, conduct an analysis, record results, and develop appropriate responses.

Professional First-Aid Training

In order to ensure that first-aid providers are readily available to handle accidents and to comply with legal requirements, the Company invites instructors to the plants every year to provide on-the-job first-aid education and training. In terms of hardware, the Company is working with the government to promote the use of AEDs to carry out first-aid, and has had AEDs installed at all plants since 2011. In 2022, one AED was installed in the dormitory at Guishan and one in the dormitory at Guanyin to minimize the occurrence of accidents.



5.2.4 Promotion of Health

Promotion of Health

In addition to ensuring workplace safety and raising safety awareness among employees, our plants have medical staff to track the health of our employees through health checkup results, and they also serve as health consultants. In the event of an emergency, they can also provide first aid and emergency treatment immediately.

In 2022, in response to the pandemic, not only did we spread information related to pandemic prevention, provide employees with general occupational safety training and led them to exercise together, we also continued to push forward our health promotion program that ranges from making adjustments to the employees' meals for a more balanced diet to encouraging exercise habits and chronic disease management so that employees can gradually develop a healthy lifestyle and implement what we know to be healthy practices.



Health Care Course

We attach great importance to the health of our employees and provide all employees with an annual general health checkup; for the 618 employees engaged in special operations this year, special health checkups (e.g. dust, noise, ionizing radiation, etc.) are provided. We analyze and evaluate the results of our employees' health checkups and keep track of their health indicators, arranging for appointments with an occupational medicine specialist and adjustments to their work if necessary, so as to help employees better understand the condition of their health.



5.3 Health and Safety Performance Management

5.3.1 Implementation Results

2022 Implementation Performance			
Item	Target Value	Actual Value	Unit
Disabling Injury Frequency Rate (FR)	≤ 1.90	0.41	Times/million work hours
Disabling Injury Severity Rate (SR)	≤ 7	0	Days/million work hours
Accident Frequency Rate (FR)	≤ 1.56	2.90	Times/million work hours
Minor injuries	≤ 6	5	Times

(1) Disabling Injury Frequency Rate (FR):
 $(\text{Annual number of people who suffer disabling injuries} \times 1,000,000) \div \text{Total work hours}$

(2) Disabling Injury Severity Rate (SR):
 $(\text{Annual number of lost days due to disabling injuries} \times 1,000,000) \div \text{Total work hours}$

(3) Accident Frequency Rate (FR):
 $(\text{Annual number of accidents} \times 1,000,000) \div \text{Total work hours}$

*Accidents that cause damage to equipment or buildings are called "accidents".

*If an accident happens, and it causes injury to a person and requires him/her to take an occupational injury leave and the number of days lost is more than one day, then it is called a "disabling injury".

*If an accident happens, and it causes injury to a person, and the number of days lost does not exceed one day, then it is called a "minor injury".

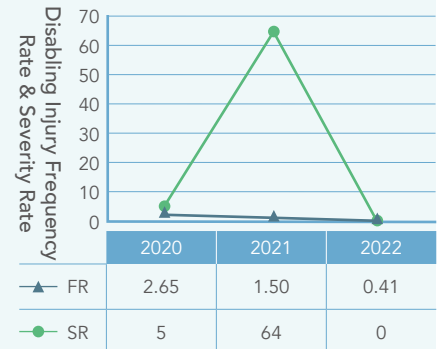
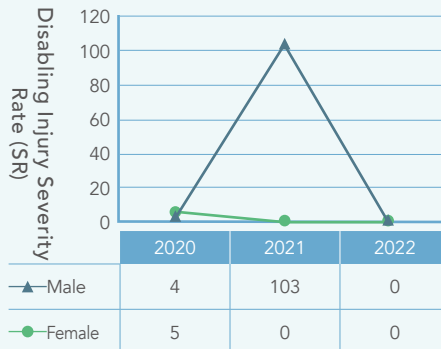
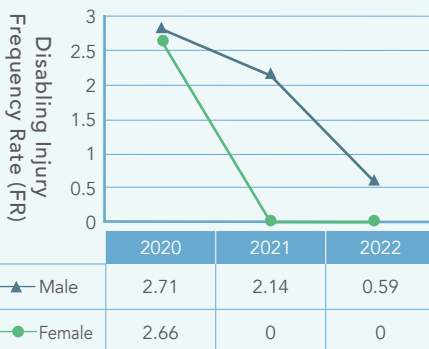
Implemented measures are as follows:

Enhancing personnel awareness through training to prevent hazards, as in 5.2.3

Occupational health and safety self-management contests, as in 5.2.2(2)

Note: FR is the Disabling Injury Frequency Rate; SR is the Disabling Injury Severity Rate.

Plant	Gender	2020		2021		2022	
		FR	SR	FR	SR	FR	SR
Guishan Plant 1	Male	4.21	3	-	-	-	-
	Female	-	-	-	-	-	-
Guanyin Plant 2	Male	4.05	5	-	-	-	-
	Female	-	-	-	-	-	-
Guanyin Plant 3	Male	1.47	4	4.13	262	1.55	1
	Female	9.22	14	-	-	-	-
Guanyin Plant 4	Male	12.46	19	-	-	-	-
	Female	-	-	-	-	-	-
Dayuan Plant 5	Male	-	-	3.18	9	-	-
	Female	-	-	-	-	-	-
All Plants	Male	2.71	4	2.14	103	0.59	-
	Female	2.66	5	-	-	-	-



We will continue to promote accident reduction programs and move toward our goal of zero occupational accidents.

5.3.2 Occupational Injury

In 2022, there were no employee fatalities. There was one accident that caused a disabling injury, and five minor injuries. This year's employee disabling injury frequency rate (FR=0.41) and severity rate (SR=0) were the best in the past five years. In addition, there was one fatality and one disabling injury involving non-employee workers (contractor, customer, self-employed worker, etc.). All of the above accidents were reviewed, and improvements were made.

In addition to reviewing the accidents, we have strengthened the management of contractors and non-employee workers by holding toolbox meetings before they enter the plants, making it necessary for them to submit construction plans in contracts, conducting safety inspections from time to time, conducting 6S workplace management, and engaging in self-care, mutual care and monitoring behaviors in order to achieve continuous improvement.

In 2022, there were 196 cases of noncompliance during health and safety audits. The deficiencies found in the audits were submitted to managers for review and investigation, and the units with deficiencies were notified immediately for them to make improvements. The deficiencies were also reviewed during Health and Safety Committee meetings and interim meetings, which aids the management and improvement of on-site health and safety.

In addition to immediate hazards, Zig Sheng also places great importance on the health of its employees. Therefore, we have established prevention and protection regulations for work items that may cause occupational diseases, such as posting hazard notices at the entrances and exits of areas with noise and dust. Furthermore, we test for noise levels, dust, chemical hazards, and other factors that may impact health. Employees working in noisy areas or in areas where special operations are carried out are required to undergo special medical checkups and related consultations every year, and complete hazard protection training, so there are currently no cases of occupational diseases.



Occupational Injury Statistics 2022

	Employees	Contractors	
Number of Occupational Injuries	1	2	Occupational injury rate (employee)=(Number of occupational injuries/total work hours)*200,000 Occupational injury rate (contractor)=(Number of occupational injuries/total work hours)*100,000
Rate of Occupational Injuries	0.08	2.32	Severe occupational injury rate (employee)=(Number of severe occupational injuries/total work hours)*200,000 Severe occupational injury rate (contractor)=(Number of severe occupational injuries/total work hours)*100,000
Number of Severe Occupational Injuries	0	0	Job-related death rate (employee)=(Number of job-related deaths/total work hours)*200,000 Job-related death rate (contractor)=(Number of job-related deaths/total work hours)*100,000
Rate of Severe Occupational Injuries	0	0	
Number of Job-related Deaths	0	1	In addition to employees, the people we most commonly see are contractors. Based on the number of visits to the plants every day, there were a total of 10,783 visits in 2022. In 2021, there were 12,559 visits; there were more visits due to the construction of additional equipment and natural gas equipment and other factors.
Rate of Job-related Deaths	0	1.16	
Work Hours	2,413,975	86,264	

Occupational Injury Statistics 2022

Injury Type	Employees		Contractors		The Company reviews and makes improvements based on incidents in which personnel are injured during their work: Falls: An employee of a subcontractor who was performing demolition work fell from a height of 21 meters since no safety harness was worn and no other safety measures were taken, which was in violation of regulations. The Labor Inspection Office involved in this case has made the Company the owner of this case. We have continued to follow up on this case as part of our corporate responsibility, and have strengthened our safety requirements to the contractor, such as toolbox meetings, the proposal of construction plans for high-risk operations, and safety inspections. Falling objects: When vendors passed by finished polymer bags in the warehouse, it resulted in collision and injury, so the shipping area was re-planned to have clearly defined, separate lanes for people and vehicles, as well as hazard notification signs that prohibit people from entering work areas. Tripping: Safety advocates should walk along the planned path and at the same time check the workplace to see if the lighting is insufficient. If so, it should be improved upon immediately to prevent people from falling.
	Number of Cases	Percentage	Number of Cases	Percentage	
Falling	0	0%	1	50%	
Falling objects	0	0%	1	50%	
Tripping	1	100%	0	0%	

All Employees							Contractors
Plant	Gender	Occupational Injury Rate IR	Occupational Disease Rate ODR	Lost Day Ratio LDR	Absenteeism Rate AR	Occupational Injuries	Occupational Injuries
Guishan Plant 1	Male	0	0	0	0.38	0	0
	Female	0	0	0	1.94	0	0
Guanyin Plant 2	Male	0	0	0	0.15	0	1
	Female	0	0	0	0.55	0	0
Guanyin Plant 3	Male	0.31	0	0.46	0.28	1	0
	Female	0	0	0	1.20	0	0
Guanyin Plant 4	Male	0	0	0	0.79	0	0
	Female	0	0	0	0.14	0	0
Dayuan Plant 5	Male	0.64	0	1.91	0.15	0	1
	Female	0	0	0	0.97	0	0
All Plants	Male	0.12	0	1.42	2.05	1	2
	Female	0	0	0	8.52	0	0

(1) Occupational Injury Rate (IR)=Total number of occupational injuries/total work hours×200,000

(2) Occupational Disease Rate (ODR)=Cases of occupational diseases/total work hours×200,000

(3) Lost Day Ratio (LDR)=Total number of days missed from work/total work hours×200,000

(4) Absenteeism Rate (AR)=Total number of days absent from work/total work days×100%

(5) Occupational injuries (workers)=Number of workers who suffered injuries in the current year.

5.3.3 Future Planning for Health and Safety

2023 Occupational Health and Safety Indicator Management

2023 Targets			Planned measures are as follows: Participating in the industrial zone's firefighting competition Increasing the strength of safety inspections Health promotion courses and activities
Item	Target Value	Unit	
Disabling Injury Frequency Rate (FR)	1.80	Times/million work hours	
Disabling Injury Severity Rate (SR)	6	Days/million work hours	
Accident Frequency Rate (FR)	7	Cases	
Minor injuries	5	Cases	

*Minor injuries: Injuries that did not result in lost days (not affecting FR, SR)