Environment
Health
Safety

2010-2011 ANNUAL REPORT

Contents

Message From The Chairperson

I still remember how we dragged ourselves away from the global financial storm two years ago. To our surprise, the 2011 Tohoku earthquake followed suit. Although we were not in Tohoku, through the ubiquitous media broadcast, we could still see the devastating power of nature. Next, the 2011 Thailand floods flooded nearly half of Bangkok. As so many people were made homeless by natural disasters, we realized that the impact of environmental problems is getting closer and closer to our daily life, like a fire engine getting nearer and nearer with it siren urging us to take more aggressive actions to improve the environment.

We have been in the semiconductor industry for nearly 36 years. Following technological and craft advancements, we have witnessed how semiconductors improved human life. However, in addition to indulging in the dream of semiconductors, we must take a look at the reality, so as to reduce or relieve the damage on the environment and provide more protection for employees. In fact, we should do anything that benefits the health of employees. I how that people can take care of their health, the health of other employees, and the health of the earth!

Message From The President

In 2011, citizens around the globe strongly felt the impact of climate change on human beings and the environment. The 2011 Tohoku earthquake and 2011 Thailand floods have reminded us of earth's strong reaction and anger to our endless development. While the call for economic growth is everywhere, human beings should slow down and re-consider the importance of environmental protection. As a member of the global village, we have no way to hide away from this. Over the past two years, besides eliminating old and energy-consuming plant equipment, we have started a series of energy-saving and eco-friendly projects, such as the replacement of LED lighting and solar grid connection. The Hermes-Epitek Plant Construction Project in Southern Taiwan Science Park Phase II has also passed the green building accreditation. By implanting environmental protection at the design phase of factory buildings, we hope that we can contribute more to environmental protection.

As a technical service provider, the safety performance of customers is one of the key indicators of customer satisfaction. It is also a concern of top management. At Hermes-Epitek, employees are the most important asset. Therefore, to create a work environment for employees to work happily and to maintain a workplace to ensure employees go home safe are the obligations of top management. Here, I would like remind employees to ensure "safety first" both at work or at home. This way, we can make "zero occupational injury" a reality.

Looking into the new fiscal year, we have decided to promote the ISO 14001 Environmental Management System and the OHSAS 18001 Occupational Health and Safety Management System, hoping to enforce our environment, safety and health management system through management. We also hope that all employees can do their part for environmental protection and occupational safety and health together.

The Usual
Spirit Of Service

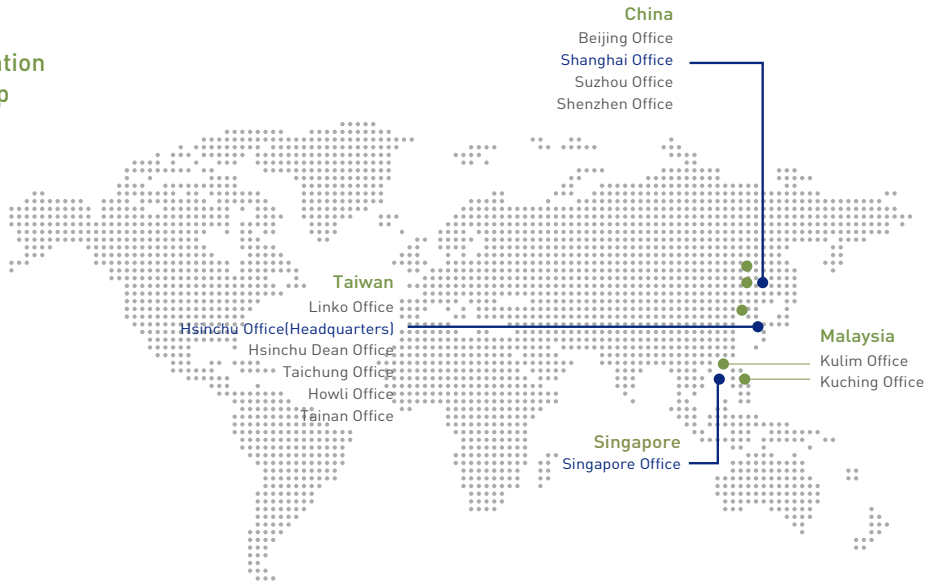
01
Company Profile

Founded in 1977, Hermes-Epitek Corporation has been growing with Taiwan's semiconductor industry over the past 36 years. As a major technical service provider of the semiconductor industry with operation headquarters located in Hsinchu Science Industrial Park (HSIP), we have more than 1,200 employees worldwide, with locations in Taiwan, Singapore, Malaysia and China.

Our scope of services includes semiconductor manufacture and flat-panel display (FPD) process equipment, LED process and part sales; particularly the semiconductor manufacture equipment which covers the complete services for both front- and rear-end process equipment. Service items include the sale, installation, hardware and software support, and functionality improvement of machinery and equipment; process development; yield rate enhancement; relocation, maintenance, part support and education/training for equipment.

Committed to becoming "the best partner of semiconductor and FPD manufacturers", we provide the best products and services for suppliers and customers to trust each other and work without worries because of our "service". In addition to bringing customers the best equipment synergy, we help suppliers improve market acceptance.

Hermes-Epitek Corporation
Worldwide Location Map



Reminder

The Lung of Earth

The rainforest used to occupy 14% of Earth surface, but it remains only 6% - 8% now. Comparing to its area, the rainforest even serves more than half of the number of creatures as a wonderful living space.

Lungs of the Earth

02
EHS Commitments

Besides focusing on business operations and fulfilling operational goals, we identify ourselves as a member of the global village and deeply feel the truth: the limited availability of external resources and the value of internal resources. Therefore, we endeavor to pursue the goal of zero disaster and zero pollution, aiming to protect the safety of employees and contractors, to ensure the safety of customers using our products or services, to support environmental protection, and ultimately to fulfill our corporate social responsibility.

Upholding such a belief, we have drawn up the following "environment, health and safety" (EHS) policy: Build a Safe and Healthy Work Environment and Protect the Beautiful and Limited Resources on Earth.

To enforce the EHS policy a reality, we have made the following commitments:

Stricter than legal requirements and capturing international standard Comply with or surpass local legal requirements, international conventions and customer requirements; capture the trend of international EHS development, and comply with international standards.

Respect life and devote to protecting human safety and health
Expand the scope of services, implement risk assessment, improve responsive ability, extend health promotion, and total implementation of safety and health awareness to put human health first.

Reducing environmental load and promote green operations
Follow international environmental protection trends, shorten carbon footprint, strive for to energy conservation, waste reduction, and pollution prevention, and continuously promote green operations.

Implement a management system and continuously improve performance
Implement the EHS management system; continuously improve EHS problems, increase EHS awareness, support global EHS activities; fulfill CSR with due faith, and pursue sustainable development.

03

EHS Goals and Present Status

Upholding the belief and EHS policy of "Build a Safe and Healthy Work Environment and Protect the Beautiful and Limited Resources on Earth", we faithfully present our efforts in promoting EHS over the past two years and our future EHS targets. In addition to continuously planning and promoting various EHS management programs and targets, we will enforce the follow-up of program implementation and progress, so as to accomplish the following targets and commitments through continuous improvement.

EHS Outcomes in 2010-2011 and EHS Planning for 2012-2013

	Programs/ Performance Items	Targets for 2010-2011	Outcomes	Compliance	Programs and Targets for 2012-2013
EHS Management	Environmental Safety Audit and Inspection	Implementation of various regional environmental safety audits.	Completion of regional environmental safety audits and follow-up of the improvement of detected defects.	○	Implementation of the Environmental Management System
	Legal Compliance Identification	Compliance with domestic and international legal requirements; and establishment of a pilot review mechanism for suitability of legal requirements	Compliance with domestic and international legal requirements; completion of the pilot review mechanism for suitability of legal requirements; and traceability of legal audit.	○	Implementation of the OHS management system.
Project Safety	Customer Operation Safety	Completion of the certification for high-risk operation education and training	Completion of the training for all teams in the southern region.	△	Planning for promoting training in the central and northern regions.
	Customer Information Platform	Establishment of a customer information platform.	Completion of the customer service CST website.	○	
Environmental Protection Activity	Energy Conservation, Carbon Reduction, and Environmental Protection Activities	Implementation of emission calculation.	Accumulative carbon emissions in 2010-2011 was 6,500 tons.	○	Continuous collection of carbon emission data.
	Energy Audit	Establishment of a monitoring mechanism and making improvement proposals	Continuously making proposals for energy conservation and carbon reduction.	△	Use of the monitoring mechanism and search for improvement proposals.
Labor Safety	Operation Safety	Continuous analysis of operation safety and completion of supplier evaluation	Completion of the new process operation safety analysis and addition of the supplier evaluation standard for major projects	○	Continuous analysis of operation safety and completion of supplier evaluation.
	Accident Handling Mechanism	Continuous implementation of the exercise plan and completion of the response plan for various accidents.	Completion of the annual exercise for 2010 and 2011.	○	Continuous implementation of the exercise plan and completion of the response plan for various accidents.
Workplace Hygiene and Health	Employee Health Checkup and Anomaly Follow-up	Analysis and establishment of abnormal groups; follow-up of individual groups; and implementation of health education and consultation	Analysis and classified management of health data; and follow-up and health education for individual groups with severe anomalies (Grades IV or V)	○	Construction of health concepts in employees and encouraging employees to pay attention to detected health problems and make aggressive improvement.
	Health Promotion Plan	Continuous establishment and arrangement of medical services and resources in offices	Cooperation with health consulting service providers to provide employees with more health resources and services.	△	Continuous provisions of more health services and resources for employees to understand how to optimize self health management.
Public Communication	Commitment for Continuous EHS Practice	Publishing the EHS report biennially.	Publishing the EHS Report for 2010-2011	○	Continuous publishing of the EHS report.
Environmental Protection	Energy Saving (kWh/person/day)	Reduced 3% from last year.	HSIP Plant: More than 3%	△	Continuous promotion of energy-saving measures.
	Water Saving (ton/person/day)	Reduced 2% from last year.	HSIP Plant: More than 2%	△	Continuous promotion of water-saving measures.
	Domestic Waste Reduction (kg/person/day)	Reduced 2% from last year.	HSIP Plant: More than 2%	△	Continuous promotion of waste-reduction measures.
	Wastewater/Sewage Discharge Monitoring	Compliance with the science park discharge standards	Compliance with the targets	○	Compliance with the science park discharge standards
Safety and Health	FR Reduction of (excluding traffic accidents)	Lower than the FR announced by the CLA	Compliance with the CLA FR in 2010 and lower than the CLA FR in 2011.	X	Lower than the FR announced by the CLA
EHS Investment	Increase of investment in environmental protection, and EHS improvement equipment and fund	Increased 5% from last year.	Increased 6% from last year.	○	Increased 5% from last year.

○ :100% compliant X :Less than 75% △ : 75% compliant ～ : No target

Reminder

The Rainforest

The rainforest has the largest variety of creatures in the world because of its climate and trees. The tree frog provides an example. There are more kinds of tree frog in the Amazon rainforest than the total in Europe and North America.

Tropical rain forest

04
EHS Management Framework

In 2011, we implemented the ISO management system and passed the ISO 9001 certification in December 2011. Next, we will continuously implement the OHSAS 18001 Occupational Health and Safety Management and ISO 14001 Environmental Management System in 2012, so as to enhance EHS awareness within the continuous improvement made according to various EHS management systems.

Apart from these management systems, we began implementing the green building design for the planning, design and construction of our new factory building in the end of 2010 for our STSP Plant Expansion Project. We applied for green building accreditation and passed the certification. We also formed an EHS team to ensure the safety and health management and pollution control on the construction site and thereby to achieve zero critical occupational injury and minimize environmental pollution.

In the following sections, we will describe the implementation and planning of the OHSAS 18001 and ISO 14001 management systems, the announcement, implementation and schedule planning of the EHS management procedure, and the EHS management organization and benefits of plant expansion.

04-1

Planning for Implementation of OHSAS 18001 and ISO 14001 Management Systems

At the Hermes-Epitek ISO 9001 Certification Kick-off Meeting held on 31 August 2011, the president announced our determination to enter the ISO era. Next, we will implement the OHSAS 18001 Occupational Health and ISO 14001Safety Management to minimize the disaster risk, environmental impact, and safety and health influence; support global EHS activities; and fulfill of CSR with due faith with various OHS management systems, in order to pursue sustainable operations.

The OHSAS 18001 Occupational Health and Safety Management is a management standard aiming to reduce and prevent the loss of life, property and time and damage on the environment from accidents through management. The OHSAS 18001 provides a set of methods for risk control management to help organizations; locate the risk sources in products, services, activities and work environment through professional surveys and assessments and identification of compliance with the relevant legal requirements; establish and implement plans appropriate to control intolerable hazard sources and risks; periodically review and assess OHS regulations and plans; establish a management system integrating organizational structure, responsibility, training, communication, response and preparedness, and reactions; and continuous improvement of OSH performance.

As environmental protection has become a worldwide focus, the passing of the ISO 14001 Environmental Management System is considered as an important indicator indicating the environmental concern of enterprises. By managing environmental management activities, establishing system documents, maintaining records, enterprises can reduce the environmental impact and penalties as a result of pollution accidents or breaking the relevant laws and regulations; and win customer recognition from continuous improvement of the environment.

04-2

Announcement, Implementation and Schedule Planning of EHS Management Procedures

In 2011, we completed the Personal Protection Equipment Procedure, Accident Handling, Investigation and Analysis Management Procedure, and Occupational Hazard Internal Determination Rules as the preparation for promoting the OHSAS 18001 and ISO 14001.

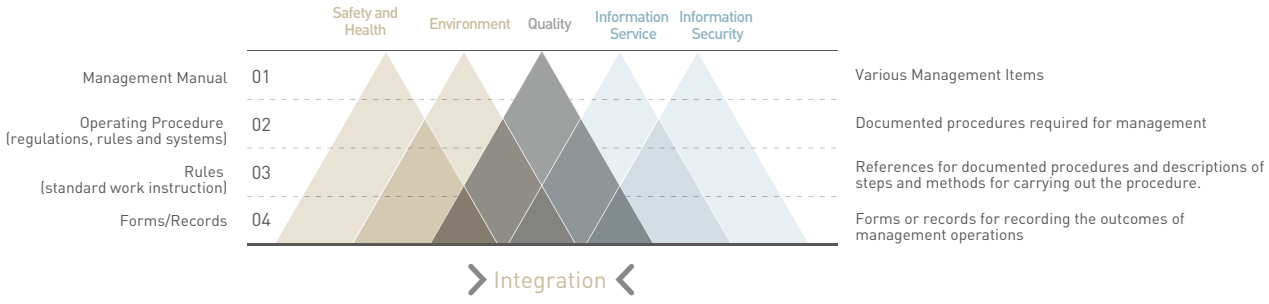
We will continuously establish and implement related management procedures, including the Hazard Identification and Risk Assessment Management Procedure, EHS Risk Change Management Procedure, Safety and Health Management Procedure, EHS Inspection Management Instructions, Regulation Identification Management Instructions, Operation Environment Testing Procedure, Safety and Health Self Inspection Instructions, EHS Objective and Program Management Procedure, and EHS Monitoring and Measurement Management Procedure.

By announcing and implementing various EHS operating procedures, management and trace became more effective.

EHS Management Procedures

Procedure	Status
Personal Protection Equipment Management Procedure	Completed.
Accident Handling, Investigation and Analysis Management Procedure	Completed
Occupational Disaster Internal Determination Rules	Completed
Environmental Management Manual	Writing in Progress
Environmental Aspect Assessment Procedure	Writing in Progress
Environmental Legal Requirement Identification Management Procedure	Writing in Progress
Environmental Objective and Management Program Procedure	Writing in Progress
Environmental management Organization and Framework Procedure	Writing in Progress
Environmental Communication, Participation and Consultation Procedure	Writing in Progress
Environmental Monitoring and Measurement Management Procedure	Writing in Progress
Environmental Operation Control Procedure	Writing in Progress
Environmental Management Review Procedure	Writing in Progress
Nonconformity and Corrective and Preventive Action Procedure	Writing in Progress
Education and training Procedure	Writing in Progress
Document and Data Control Procedure	Writing in Progress
Emergency Preparedness and Response Procedure	Writing in Progress
Internal Audit Management Procedure	Writing in Progress

Description of the Level of Management System Documents



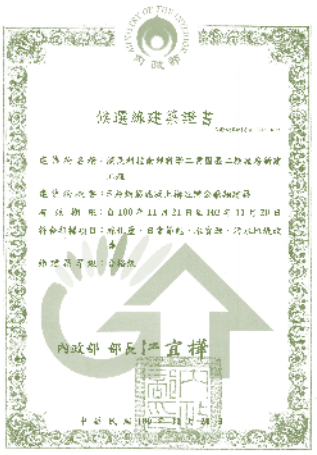
04-3

Plant Construction Project EHS Management and Benefits

04-3-1 / Green Building

In a time of global climate change, green energy, energy conservation and carbon reduction, we have fulfilled CSR with due faith and due diligence. In the Hermes-Epitek Plant Construction Project in Southern Taiwan Science Park Phase II, we have aggressively implemented the green building concepts in planning, design, construction and use.

In this project, we have applied for and padded the green building accreditation. These included the greening index, daily energy saving, water resources, sewage and garbage improvement. In doing so, we are enforcing sustainable environmental protection and valuing the limited resources on earth in real action.

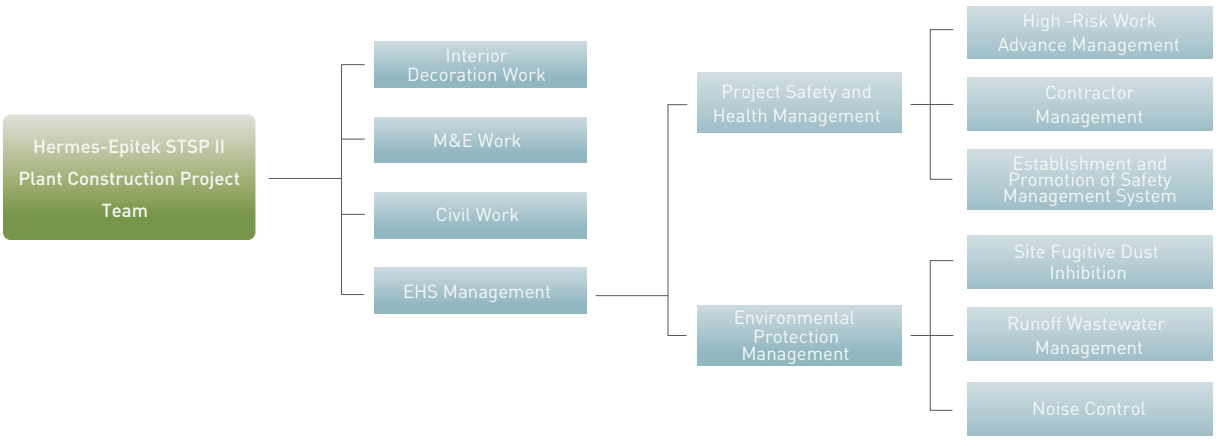

候選綠建築證書

Green Building Candidate Certificate

04-3-2 / Plant Construction Project EHS Organization

To respect life and care for the earth, we have spared no effort to realize zero occupation disaster and minimize construction pollution in the construction period. To achieve this, the project team specifically formed the EHS team to take care of the EHS affairs of the project, to voluntarily report to experts, and consulted the environmental protection and labor affairs authorities, so as to optimize EHS management on the project site.

Hermes-Epitek STSP II Plant Construction Project Team Organizational Chart



Reminder

The Ozone Layer

The ozone layer is located at high Atmosphere. It absorbs harmful ultraviolet radiation coming from the sun. But overmuch greenhouse gas has corroded the ozone layer as 4.6% area of Earth surface, and it becomes thinner and thinner at 4% a year in the North.

04-3-3 / Management of Project Safety and Health

The EHS team of the Hermes-Epitek STSP II Plant Construction Project promoted site EHS work and supervise the implementation of safety management of contractors, including guidance for contractors in establishing the safety and health implementation manual, guidelines for safety and health ratings, work rules, safety and health regulations, sub-construction management, construction safety and health control, safety audit and emergency handling. The team also reviewed the overall EHS performance of contractors.

Through daily inspections and defect reviews, we cultivated the self-safety management spirit integrating voluntary detection and voluntary improvement in employees to achieve industrial safety for all.

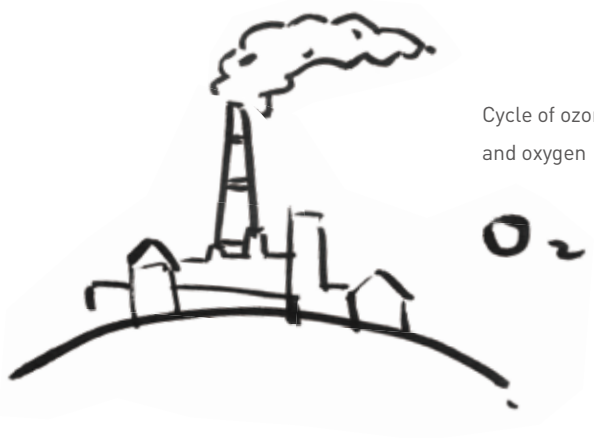
04-3-4 / Management of Project Environmental Protection

Civil projects usually pollute the environment, such as surface water, air, noise, vibration and waste. With the rise of the awareness of environmental protection, the demand for a quality living environment increases. Along with the increasing stringent environmental protection regulations, civilian protests and violation of environmental protection regulations occur very often in the absence of well-planned pollution control measures.

With the careful planning and implementation of the EHS team and the cooperation of contractors, we were commended for our outstanding performance in construction site air pollution control by the Bureau of Environmental Protection, Tainan City Government. In November 2011, we organized an onsite demonstration to share with other constructors our experience in pollution control, including fence greening, the steel baseboard facility for the car washing machine, pressured jet washing equipment, and wastewater sedimentation tank. By organizing this event, we successfully increased the effectiveness of environmental protection.

Demonstration of fence greening.

Constructors were interested in our car washing facility.



Cycle of ozone and oxygen

04-4 Statistics on EHS Expenditure

The determination of our involvement in environmental protection and safety and health improvement is shown in our investments in related equipment. In 2008-2009, we invested about $7 million on EHS equipment. In 2010-2011, we increased the amount to $17 million, which was about 6% more than the total in 2008-2009. This included the replacement of the chiller and procurement of the 3F MAU inverter of the HSIP Plant and the procurement of the PV generation equipment of the STSP Plant, which shared more than 93% of the total EHS expenditure. The EHS expenditure in 2010-2011 is tabulated below

The major EHS expenditure and items in the future include:

(1) replacement of old plant equipment and construction of new plant equipment
(2) replacement of energy-saving OA equipment
(3) waste disposal; and
(4) purchase of industrial safety equipment.

Major EHS Expenditure

	2008-2009	2010-2011
Plant Equipment (major expenditure)	HSIP Plant Heat Exchanger	HSIP Plant Chiller Replacement
	HSIP Plant Kitchen Oil/Water Separator	HSIP Plant New PV Equipment
	HSIP Plant DI System Improvement	HSIP Plant 3F MAU Inverter
	Other Plant Equipment	Other Plant Equipment
Industrial Safety Items and Waste Disposal (major expenditure)	Industrial Safety Items and Instruments	X-ray and Gamma-ray Detector Industrial Safety Items and Instruments
Expenditure	Approx. $7 million	Approx. 17 million

Reminder

El Nino

El Nino is highly concerned with the amount of CO2 in Earth's atmosphere. El Nino has more and more influence because of the increasing CO2 produced by human activity in enlarging scale. In the meantime, it also makes the world climate more unexpected.

05 Environmental Protection

05-1 Green Issues Promotion

05-1-1 / Green Building

The aim of the Green Building Mark is to change the passive practice in the past of "minimization of resource consumption and waste production", into the active practice, "eco-friendly, energy-saving, waste-reducing, and healthy buildings". The nine major green building targets are as follows:

1.Biodiversity

Site green land quality improvement: Encourage the creation of high-density water ecology by ecological ponds, tanks and riverbanks.

2. Greening

"Site greening" refers to growing different kinds of plants with the natural soil on the construction site and the overlaying soil on the roof, veranda, exterior wall, and artificial site.

3.Site Water Conservation

The better the water conservation, the better the rainwater conservation performance of construction sites will benefit the activities of microorganisms in the soil.

4.Daily Energy Saving

Air-conditioning and lighting are major assessment targets in daily energy saving.

5. CO2 Reduction

CO2 reduction refers to the CO2 emissions of the energy used to process the construction materials for constructing the building.

6. Waste Reduction
Reduce the impact on the environment in terms of waste, air pollution and resource recycling.

7.Water Resources
Improvement of sewage and garbage, including rainwater and sewage separation, and garbage site improvement.

8.Indoor Health and Environment
Assessment of the sound environment, light environment, ventilation, and indoor construction materials.

9.Sewage and Garbage Improvement
Includes rainwater and sewage separation, garbage site improvement, wetland sewage treatment and kitchen leftover.

The Green Building Mark falls into five grades: diamond, gold, silver, bronze, and pass.

According to the assessment team, the Hermes-Epitek STSP II Plant was rated as pass. We hope that in 2012, a brand new energy-saving, resource-saving, and low-pollution green building is seen, and a comfortable, healthy and environmental-friendly work environment is created.

O5-1-2 / Solar Energy Plan

Solar energy is one of the cleanest and the most stable forms of energy. Besides saving utility expense, PV systems can help to reduce the temperature and carbon emissions of the factory building. Under the direction of Tokyo Electron Taiwan, the commission operation of crystalline silicon PV system officially began at the Hermes-Epitek STSP II Plant in January 2011. It is a collaborate research between Tokyo Electron Taiwan and Hermes-Epitek to study the generation efficiency of crystalline silicon PV systems. The output electricity was supplied to the Hermes-Epitek STSP II Plant.

Solar boards at the Hermes-Epitek STSP II Plant.

05-2
Ride for Energy Conservation and Carbon Reduction

At our HSIP Plant and Hsinchu Office, we have established a bike parking rack for employees to park their bicycles when they go to work. To show concern for employees riding to work in hot weather, we have built shower rooms at the HSIP Plant and Hsinchu Office for them to take a shower before work, so that they will not feel uncomfortable.

Bike parking rack at HSIP Plant.

05-3
Water Saving and Management

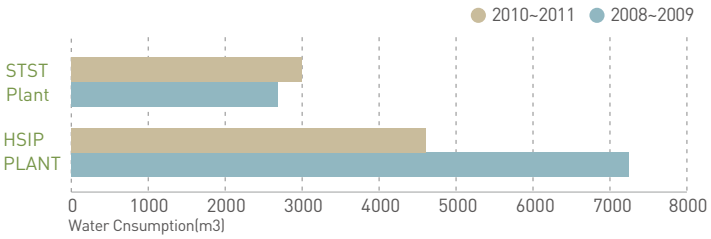
The rainfall difference between the dry and wet seasons is obvious in Taiwan, and water resource storage is difficult. When there is inadequate rainfall, industries will need to prepare for severe water shortages. To ensure stable water supply and prevent water resource inadequacy from becoming a hindrance of future development, we have been promoting various water saving measures to reduce tap water demand by recycling water resources and by maximizing the efficiency of limited water resources.

05-3-1 / Water Saving Performance in 2010-2011

Compared the water consumption in 2008-2009 and 2010-2011, the HSIP Plant reduced water consumption from 72,819m3 in 2008-2009 to 46,153m3 in 2010-2011, by about 26,666m3 or 42%, fulfilling the 2% commitment. (Next column)

Water consumption at the STSP Plant increased from 27,376m3 in 2008-2009 to 30,529m3 in 2010-2011, by 3,153m3 or 10%. It was the result of the STSP Phase II and plant construction.

Plant and Office Water Consumption 2008-2011



O5-3-2 / Results Effluent Water Quality Test

The HSIP and STSP wastewater treatment plants inspect effluent water quality at least twice a year to ensure that effluent meets the discharge requirements.

Results of Effluent Water Quality Test at HSIP and STSP Wastewater Treatment Plants in 2010-2012

Testing Item Results	HSIP Plant		STSP Plant		Testing Item Results	HSIP Plant		STSP Plant	
	Water Quality Standard	Effluent Average Concentration	Water Quality Standard	Effluent Average Concentration		Water Quality Standard	Effluent Average Concentration	Water Quality Standard	Effluent Average Concentration
PH value	5-10	7	5-10	8	Water Temperature(°C)	<35°C	22.7	<35°C	26
TSS (mg/L)	<300	124	<250	50	Ionic surfactant (mg/L)	<10	2	<10	3
COD (mg/L)	<500	178	<450	280	BOD (mg/L)	<250	43	<250	220
Oils and Fats(mg/L)	<25	9	<25	10					

O5-4 Energy Saving and Management

Besides exhausting the earth's resources, energy consumption that generates CO2 emissions will cause a greenhouse effect.

We have been discussing different kinds of energy-saving technologies and implementing relevant energy-saving plans with outstanding energy saving performance. We have also implemented energy management programs in offices and public areas and promoted related promotional activities to improve the energy-saving concept and habit in employees.

O5-4-1 / Energy Saving Programs

Energy Saving Programs in 2010-2011

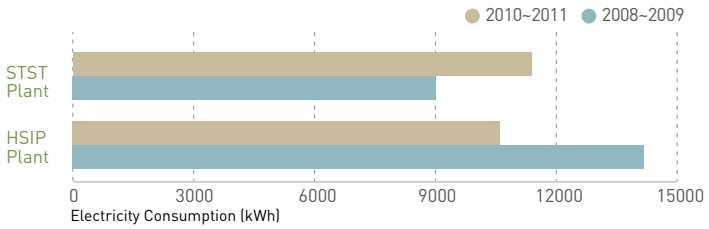
Physical Measures	Investment ($)	Energy Saved (kWh/year)	Amount Saved ($/year)
HSIP Plant Chiller Replacement	4,500,000	1,250,928	3,127,320
HSIP Plant 3F MAU Inverter Procurement	1,230,000	512,774	1,281,935
STSP Plant PV System Installation	1,000,000	8,000	20,000
STSP Plant Underground Parking LED Light Replacement	126,875	6,532.5	16,331
STSP Plant Window Film for Reducing Indoor Temperature and Air-Conditioning Use	80,000	11,561	28,904
STSP Plant reduced the electricity consumption of lighting at the Washroom exit and aisle of stairway A on the 4th to 6th floors.	69,100	19,710	49,400
STSP Plant Ventilation Equipment Operation Adjustment	0	155,495	388,739
Addition of a cover to the rolling door motor box at STSP Plant to reduce cold air leakage.	0	68,200	171,000
STSP Plant HWP regulation by manually closing half of the valve without affecting PUMP performance and MAU water consumption to reduce electricity consumption.	0	11,400	28,500

05-4-2 / Energy Saving Performance in 2010-2011

Compared the electricity consumption in 2008-2009 and 2010-2011, the HSIP Plant reduced electricity consumption from 14.13 million kWh in 2008-2009 to 10.48 million kWh in 2010-2011, by about 3.65 million kWh or 25%, fulfilling the 3% commitment.

Electricity consumption at the STSP Plant increased from 8.95 million kWh in 2008-2009 to 11.29 in million kWh 2010-2011, by 2.34 million kWh or 26%. It was the result of the capacity increase of the clean room and STSP Phase II construction.

Plant and Office Electricity Consumption in 2008-2011



05-5 Waste Management

To ensure the sustainable use of resources and minimize the potential derivative environmental hazards of waste, we have enforced waste reduction and waste to resource in waste management so as to continuously reduce waste generation.

05-5-1 / Waste Reduction Programs

To ensure the effective use of paper resources by reducing paper resources waste and provide employees with good, comfortable and tidy work space, we have put the Paper Recycling and Confidential Document Box in the photocopy room of individual plant sites for employees to recycle papers by type: dust-free paper, one-side blank paper, and waste paper (both sides are printed and cannot be reused).

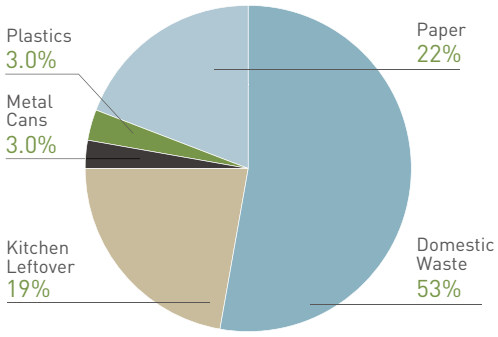
Paper Recycling and Confidential Document Box

O5-5-2 / Waste Reduction Performance in 2010-2011

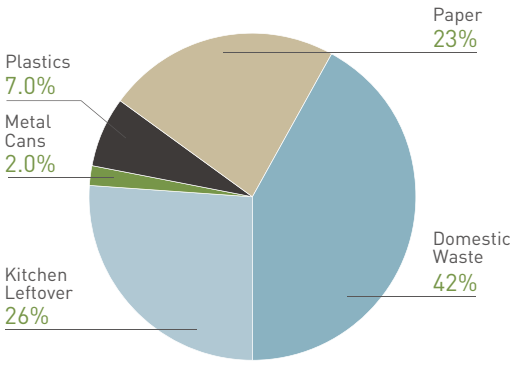
Comparing the domestic waste in 2008-2009 and 2010-2011, the volume of domestic waste increased from 37,000 tons in 2008-2009 to 49,000 tons in 2010-2011, by about 8,000 tons.

Analysis showed that the waste produced at our plants includes 42% domestic waste and 58% recyclable waste. Further analysis showed that the volume of domestic waste in 2010-2011 reduced to below 50%; i.e. 11% lesser than 2008-2009. Also, kitchen leftover and plastics increased 7% and 4% respectively. Overall, the result was quite good.

Analysis of Waste Composition in 2008-2009



Analysis of Waste Composition in 2010-2011



Reminder

Global Warming

The expert says the average temperature of Earth's surface will increase 1.4-5.8℃ in 2100. And it could be the largest change per century among the past 10000 years. (It only increased 0.6℃ during 20th century)

06 Safety and Health

06-1 Education and Training for Safety and Health

At Hermes-Epitek, we cultivate employees through education and training to ensure corporate growth. Apart from fundamental education, we have promoted a series of advanced training courses on safety skills, hoping to equip employees with adequate safety awareness and safety skills to fulfill self-protection at work. From concerning the safety and health of others and protecting the safety of partners, these are steps to promote total workplace safety.

06-1-1 / Employee Education and Training

We carry out employee education and training in the following five ways: "physical classes", "poster publicity", "e-mails", "BBS", and "e-learning".

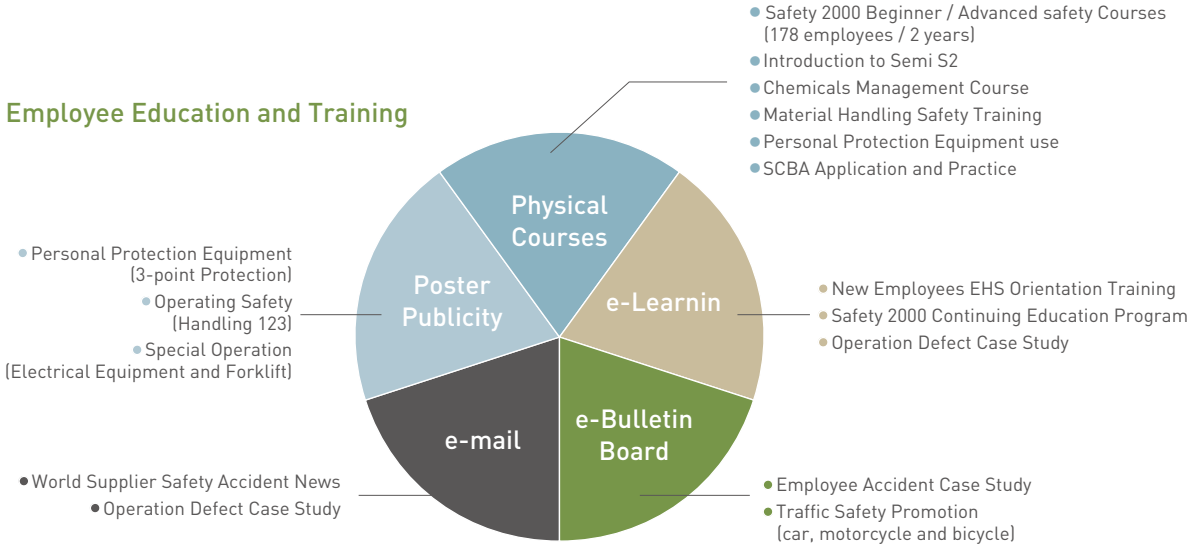
Physical classes were given to develop the safety skills of employees through instructor-led classroom training with instructor demonstration and student practice to enhance learning efficacy. Also, posters and other publicity materials were displayed at workshops to remind employees of potential operational hazards and the importance of self protection.

El Nino

We also posted the information about the latest occurrences and accidents on the intranet, and sent notices to employee e-mail to alert them of the importance of operation safety, so as to reduce the recurrence of the same occurrences and accidents.

e-Learning courses regarding the work characteristics and operating needs of employees have been promoted continuously to fulfill the learning demand of employees. In addition, these courses have increased the flexibility of course planning and design and provided employees with an accessible learning environment. Even employees on business trips can always finish a training program to enrich their knowledge and skills by taking these courses from the e-learning system featuring ubiquitous access and availability. In 2011, Safety 2000 was updated into an e-learning course. Since it was opened, 1,066 employees took the course in three months.

Employee Education and Training



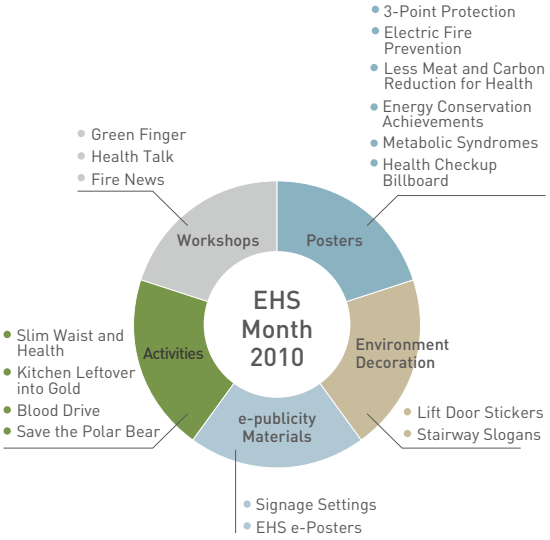
O6-1-2 / Safety and Health Publicity Materials

In 2010, we pioneered the EHS Month event. The aim of the event is to create an atmosphere of workplace EHS to encourage and invite employees to participate in the EHS management programs organized by the management and to realize the corporate EHS policy. The EHS Month began in 2010. It was a one-way education event extending into a full-scale campaign planned and designed for environmental protection and occupational health and safety in terms of poster publicity, environment dedication, e-publicity materials, booth activities, and workshops. The aim of this event is to mark out the importance of EHS enforcement and demonstrate the progress and achievements of EHS promotion at Hermes-Epitek through dynamic and static activities lasted for one month, hoping to enhance the employees' identification with EHS and encourage their participation in EHS activities.

We made signboards in the poster gallery and safety slogans on the stairway with waste carton boxes. Every week, we changed the serial posters and displays, and organized physical workshops to disseminate environmental protection, safety and health concepts to employees to remind them of the duty and importance of EHS and emphasize the idea of "we reap what we sow". By encouraging them to start EHS with self-practice, we can build a better workplace and perfect the work environment through unity and strength.

Serial Activity Posters

Save the Polar Bear (Environmental Protection Campaign)



2010 Workshops, Posters, Environment Decoration, e-Publicity Materials, Activities

EHS Gallery: Poster Zone (Waste Carton Paper Recycling)

Slim Waist for Health Booth (Face-to-face self health management advice from paramedics)

Green Finger Workshop (expert speech)

Fire News (sharing of fire department)

O6-2
EHS Operations Management Procedures

Public protection equipment in the operation area of the plant.

O6-2-1 / Personal Protection Equipment Management

Personal Protection Equipment (PPE) is the last line of protection of personal safety. Correct selection, correct use and correct maintenance of PPE have thus become an important issue. We have established the Personal Protection Equipment Management Procedure (GFC2-003, implemented on 4 November 2011) to standardize the selection, daily inspection and management of PPE to ensure the enforcement of PPE management in departments, so as to effectively protect employees.

Apart from classifying the operation system within the plant through analysis and observation to provide PPE for employees engaging in special operations, we have planned a hazardous area in the plant according to the onsite work environment and work type; established the standard PPE instructions for employees; and equipped public protection equipment at points of use to provide visitors, guests, and employees with basic safety protection, in order to reduce the hazard risk level in the operation area.

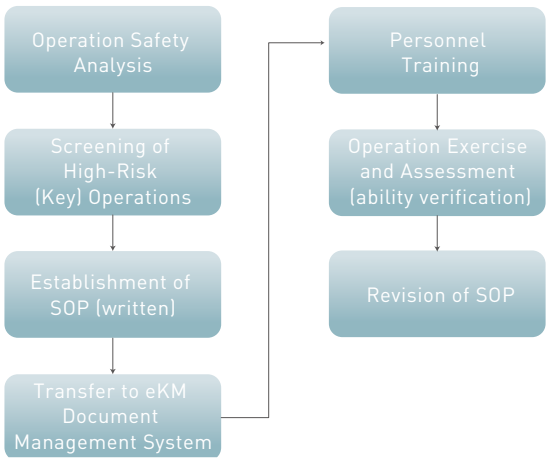
O6-2-2 / Standardization and Documentation of Operating Procedures

To avoid discontinuity of experience, minimize errors in oral instructions, and to effectively prevent occurrences or accidents from negligence, we have promoted the standardization and documentation of operating procedures for high-risk operations, in order to turn standard operating procedures into the code and reference of operations of employees and the pre-service instructions for new employees.

Since 2010, before initiating a new process, apart from controlling all known risks right from the beginning of the design of the plant affairs system according to the initial risk assessment, the departmental project superintendent and EHS personnel formed a team to simulate all potential operation modes and operating patterns of workers, screen high-risk key operating items, and conduct the onsite inspection and simulation of work environments, so as to establish the relevant standard operating procedures and include all necessary EHS measures. Then, subsequent simulations and observations were conducted to adjust and correct the details before documenting these procedures. Next, these procedures were transferred to the eKM document management systems of corporate documents for version management. Lastly, these procedures were announced and managed over the system to ensure that employees have read through the latest version of these procedures every month.

In 2011, new process personnel and EHS personnel participated in the live test and verification of the standard operating procedures. Apart from assessing the accuracy of operations, safety measures were included in the test.

Process Flow Diagram of the Standardization and Documentation of Operating Procedures



Reminder

Melt in North Pole

The sea level used to rise at 1~2 mm a year. However, with the serious global warming, it rises at a great rate. The expert predicts that in 2100, the see level will be 9~88cm higher than in 1900.

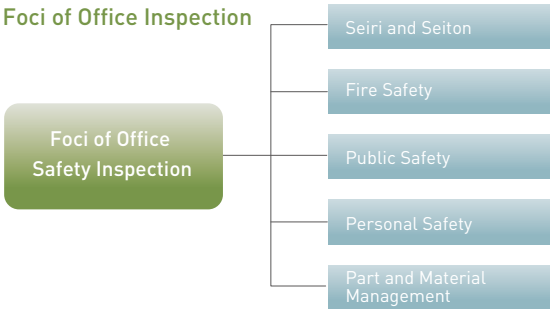
Arctic melt

06-2-3 / Office Safety Inspection

Based on the spirit of management by walking around (MBWA), we will discover more problems as we walk around more and see more, so we can make improvement to create a safe and healthy workplace. In 2010, the general affairs, warehouse management and EHS departments formed an office inspection and audit team to inspect and supervise various EHS items in the office area in alternate weeks. We also established the model department reward scheme to select the best performing department and the best progress department every season and encourage employees to enforce seiri (sorting) and seiton (set in order) with cash rewards, so as to eliminate hazard factors in operations and maintain the tidiness of office environment. Apart from enhancing office morale and efficiency, this can help to eliminate potential hazard factors hidden in the office area.

Prizes presented to winners (August 2010)

Prizes presented to winners (September 2010)



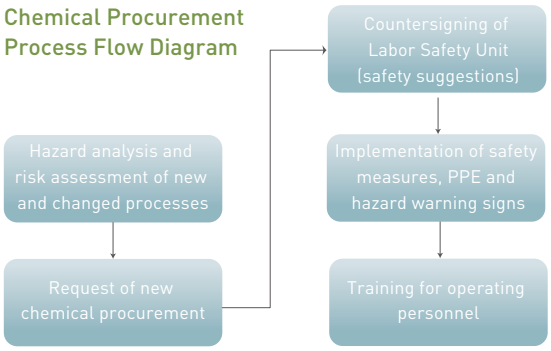
06-3
Management of Chemical Substances

According to past accidents and experience, improper management of chemicals in the plant can turn an in-plant accident in to a public environment accident. Therefore, we pay extra attention to the management of chemicals.

O6-3-1 /Management of Raw Materials

We firmly believe that source management is the most effective way to prevent chemical hazards. In addition to including chemicals in the documented procurement management procedures, we added chemical procurement in the e-procurement approval process to ensure full-scale control of the variety and stock of chemicals within the plant and to assess the potential risks of chemicals used in new processes or changed processes prior to procurement, so as to ensure completeness of the plant's management conditions and hazard control ability, to make the optimal safety suggestions prior to procurement, and to complete the preparation for the transportation, storage, use and safety management of chemicals.

Chemical Procurement Process Flow Diagram



O6-3-2 / Operation Training

"We stay alert because we know, and we use with care because we understand." Therefore, we emphasize worker training. Beginning with the awareness of chemical hazards, we train employees to understand the characteristics, the prevention and emergency handling of the chemicals they use at work with the known tools (MSDS and hazard warning signs). We also introduce them the emergency response equipment and apparatus at the points of use and train them with situated learning about the use of these equipment and apparatus, in order to improve their skills and responsiveness through exercise.

Emergency response equipment cabinet at point of use

Training on the use of emergency response equipment (practice

Reminder

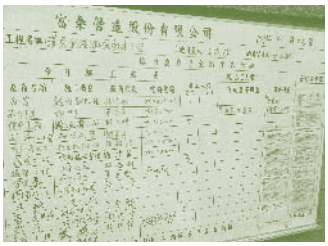
The Case in Taiwan

The coastal areas in all countries will be under the sea level while it rises. The expert estimates that the six largest metropolitan areas will sink in the sea when the sea level rises 6 meters. In the meantime, the annual average temperature at surface has increased 0.21 degrees, and 20.3 mm has the annual amount of liquid precipitation. It speaks that Taiwan is more and more hot and humid.

06-4 Management of New Plant Construction Site

In 2011, the construction site management plan was officially initiated for the STSP II Plant and Hukou Plant construction projects. As the client of both projects, we supervised the site safety and health management through sharing our management experience. We participated in the contractor coordination organization meeting every week to give suggestions for the coordination meeting and contractor management and assisted in contractor communication and coordination. Every week, we participated in the joint safety inspection of contractors to voluntarily audit site defects and correct hand-induced and environmental hazard factors to minimize operational risk, protect worker safety, and ensure the smooth operation of the construction projects.

Weekly Construction Site Meeting



Construction Site OHS Display Board

06-5 Disaster Control and Response

Continuous simulation and exercise is the only way to ensure correct handling of occurrences and accidents, systemic organizational operation and thereby effective control of disasters. Taiwan is located on the earthquake belt. After the Chichi Quake, enterprises understand better and take further precautions to respond to earthquakes and avoid damage. After the southern Taiwan earthquake on 23 March 2010 and the Tohoku earthquake on 11 March 2011, the impact and influence of earthquake have turned earthquake exercise into the focus of this couple of years. As an equipment supplier with personnel and factories distributed across Taiwan, the personnel safety and customer situation reporting and the arrangement of disaster recovery have become the important issues.

O6-5-1 / Emergency Response Exercise

Earthquake was the theme of the emergency response exercise for 2010. The aim of the exercise was to train the employee response to take cover and find shelter in an earthquake emergency, and the design of the subsequent recovery and re-entry to train the related responsive personnel. In 2011, we expanded the scale to original suppliers by establishing an emergency communication network with them to focus on an island-wide earthquake emphasizing the communication and capture of the information of personnel safety, building damage and customer disaster; initiation of disaster recovery; offsite recovery (overseas), and departmental responsibility.

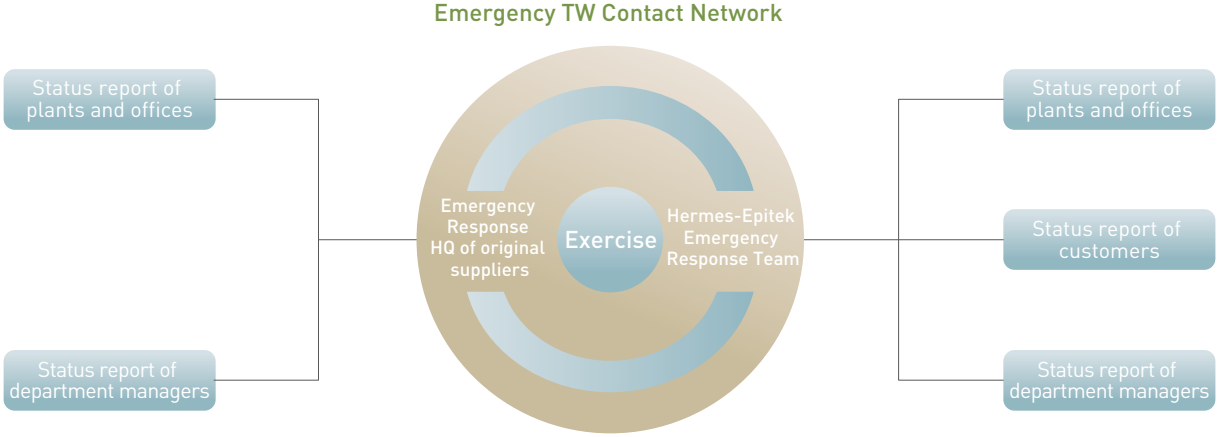
STSP Plant Fire Exercise (meeting at the meeting place)

HSIP Plant Earthquake Exercise (CO assigned missions.)

HSIP Plant Earthquake Exercise (department report after checking)

HSIP Plant Earthquake Exercise (participation of higher management)

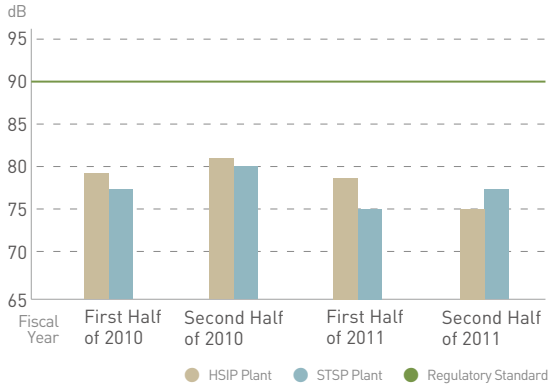
Hermes-Epitek and Original Supplier Emergency Contact Network



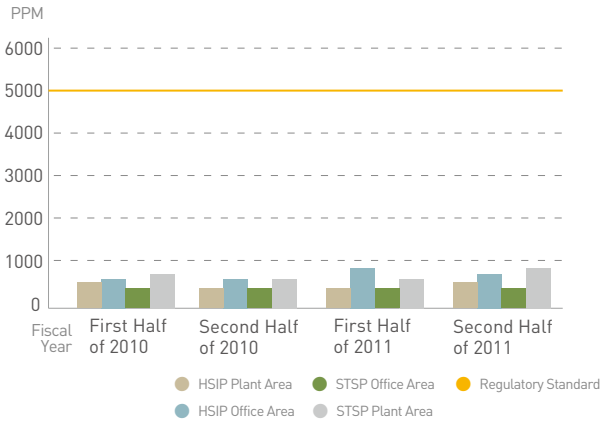
06-5-2 / Test of Work Environment

According to the work environment test in 2010-2011, all values were below the regulatory standards. That is to say, we provided employees with a healthy and comfortable work environment.

2010-2012 Noise Test Results



2010-2012 CO_2 Test Results



06-6
Handling and Statistics of Handling

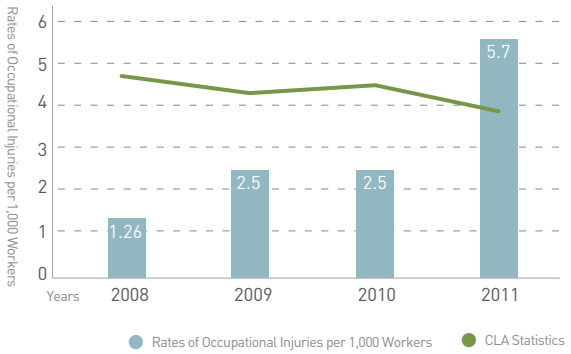
06-6-1 / Reporting and Handling of Accidents

In 2011, we completed the Accident Handling, Investigation and Analysis Management Procedure after integrating the handling processes of anomaly events and personal accidents of our plants and customers. We also reviewed all parts of the processes to define the operating procedures, responsibility and authority, and responsible personnel to ensure that events are reported and systemically controlled from their occurrence, handling, subsequent analysis and preventive action, so as to ensure the effective, correct and accurate handling, investigation and analysis of events.

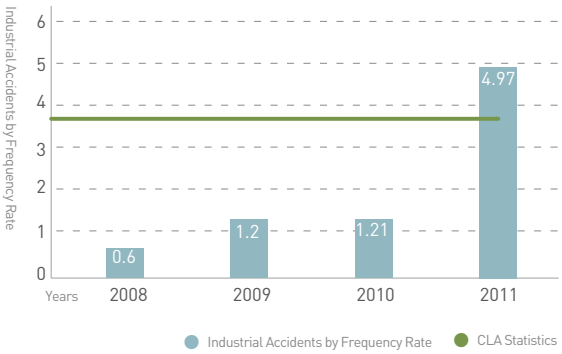
06-6-2 / Statistics of Occupational Injuries

Occupational disasters tended to increase in 2011, even higher than the CLA statistics.

Rates of Occupational Injuries per 1,000 Workers

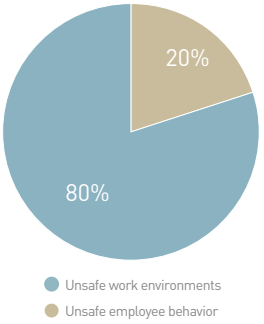


Industrial Accidents by Frequency Rate

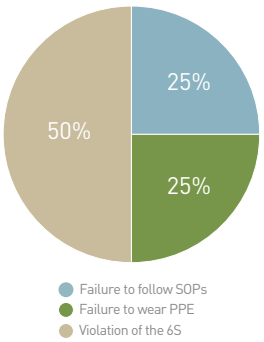


The results of analysis of the causes and severity of accidents in 2011 showed that 80% of accidents are the result of the unsafe behavior of employees. Further analysis of the causes indicated that the reasons for occupational injuries include failure to follow the SOP, failure to wear PPE, and violation of the 6S requirements. Therefore, we reinforced the daily toolbox meeting for employees in 2011. By requesting workers to re-confirm everything before, during and after their daily work, we hoped to remind employees to follow the SOPs, exactly check the PPE and onsite management focus, increase the frequency of site inspections and audits, supervise and enforce site safety management, and correct the unsafe behavior of employees at appropriate time, in order to minimize the frequency of occupational injuries as a result of man-induced mistakes.

Accident Causes in 2011



Unsafe Behavior Type



O6-7

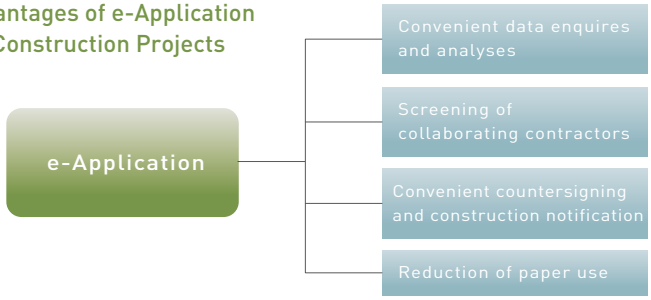
Management of Supplier Safety and Health

O6-7-1 / e-Application for Construction Projects

To ensure more systemic management and control of the construction status of contractors, we designed and produced the online construction work approval system in collaboration with the IT department. The system went live in 2010. From the system, we can enquire and retrieve the registered applications in real time to concurrently capture the work items currently in progress of different plants and offices, compare the contractors and their projects in the same period and work areas, and assist the person-in-charge of projects in coordination and communication.

With the countersigning and e-mail functions of the system, we can notify the person-in-charge of projects of the hazards and safety measures of contractors at the beginning of application to facilitate the arrangement of onsite operation and remind them of the potential hazards. In doing so, we can optimize communication between both parties to minimize the relevant hazards before a project.

Advantages of e-Application for Construction Projects



06-7-2
/ Evaluation of Contractors of Major Construction Projects

Major construction projects are more complicated and have more hazards than general on-plant construction projects. To ensure risk control of accidents, we included in 2011 the ability and performance of safety and health management as the important requirements to select contractors for major construction projects. Also, according to the government procurement standards, we established the contractor evaluation items for major construction projects. Contractors with critical occupational injuries within the past five years will not be qualified to participate in the open tendering of our major construction projects. In doing so, we can ensure the subsequent safety and health management ability of contractors by selecting qualified contractors at the beginning of selection.

06-8
Health Care and Management

We consider employee heath as our most important asset. Therefore, apart from arranging health checkups for employees every year, our health center has considered the analysis results of employee health checkup as the important reference for the health checkup items in the following year. Also, to pay attention to and concern employees with abnormal health checkup results, we specifically established in 2011 the Employee Health Checkup Management Regulations (GFCM-002, implemented on 2 June 2011) to specify the graded management of anomalies detected in employee health checkup and to standardize the health checkup of the company.

As the health center needed to manage and analyze a large amount of health checkup data every year, we established in 2011 a health management website with the health consulting company to facilitate the systemic storage and analysis of health checkup data over time.

Also, as many employees suffered from shoulder, neck and back pain after working for a long time, we introduced in 2010 the stress-relieving massage service provided by blind masseurs at the HSIP and STSP plants for employees to relieve stress even when they are at work. In the future, we will continue to introduce the massage service to other plant sites so as to extend this employee benefit to all employees.

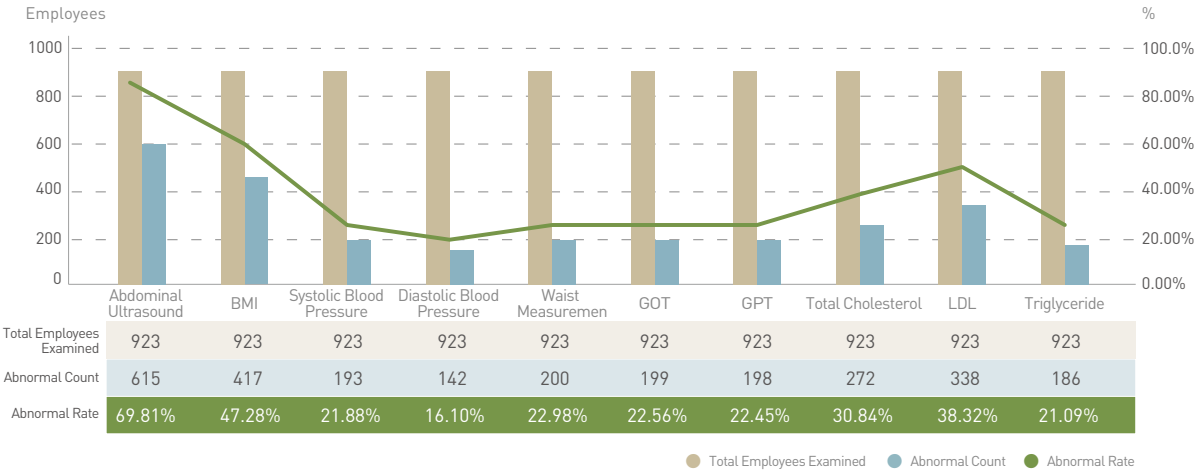
Apart from a health manager, our heath center organizes health education and training courses from time to time to educate employees with first-aid knowledge and skills, so that they can save lives in emergency situations.

O6-8-1 / Annual Employee Health Checkup

To ensure total employee health, we arrange on-plant and hospital health checkups for employees. Also, the same hospital system is arranged to ensure that all employees receive the same standard of health checkup even when they are on a business trip. Statistics showed that the checkup rate in 2010 and 2011 was 95.59% and 93.29% respectively; suggesting that although many employees were transferred from one plant site to another, they could still receive the health checkup from the same hospital system.

In checkup item planning, the health center determines the health checkup items every year according to the analysis results of the past year or past two years, such as the abdominal ultrasound and metabolism examination. As metabolic syndromes are ranked within the top ten health anomalies, we have included the most common metabolic syndromes found in employees as the routine checkup items to ensure the continuous monitoring of these syndromes. We have also increased checkup items according to epidemical findings. For example, as many employees do not cook, we requested the examination hospital to added plasticizer-related items in the checkup after the outbreak of the plasticizer scandal in 2011, in order to help employees to ensure that they are safe.

Top Ten Health Anomalies in 2011



	Abdominal Ultrasound	BMI	Systolic Blood Pressure	Diastolic Blood Pressure	Waist Measuremen	GOT	GPT	Total Cholesterol	LDL	Triglyceride
Total Employees Examined	923	923	923	923	923	923	923	923	923	923
Abnormal Count	615	417	193	142	200	199	198	272	338	186
Abnormal Rate	69.81%	47.28%	21.88%	16.10%	22.98%	22.56%	22.45%	30.84%	38.32%	21.09%

Health Checkup at HSIP Plant Site

Health Checkup at Taichung Office

06-8-2 / Establishment of the Employee Health Checkup Management Regulations

To unify health checkup and health management, we have standardized the heath checkup process and follow-up management to better understand the health condition of employees and thereby to prevent diseases, occupational diseases and other injuries. We have also followed related regulatory requirements and referred to the relevant health data to ensure the health of employees. The follow-up and management employee health graded according to the hospital's advice are shown below.

Health Management Platform: Health Manager Management Menu

06-8-3 / Management of Employee Health Data

In order to provide more health information for employees, we have established a health management information website in collaboration with a health consulting company. By analyzing and managing employee health data with effective system analysis tools, we have not only helped healthcare consultants to analyze employee health data, but also allowed employees to freely access their health data over time and to share comprehensive health information and health education materials on the website. With the health survey questionnaire published over the website, employees can understand the trend of their physical constitution, receive a personal health promotion plan, and make health enquires answered by professional healthcare teams. We have also designed the health e-passport for employees to record their blood pressure, weight, BMI and other health data and show them how to calculate diet calories and the calories consumed by sports. In doing so, we provide care for employees and help them develop the ability of self health management.

Employee Health Graded Management Table

Graded Management	Checkup Results
I	All checkup items are normal.
II	Related health education is arranged for the abnormal items according to the physician's diagnosis.
III	Related health education and outpatient consultation are arranged for the abnormal items according to the physician's diagnosis.
IV	Employees are needed to follow up the abnormal items at the hospital within three months according to the physician's diagnosis.
V	Employees are needed to follow up the abnormal items at the hospital or clinic within one month according to the physician's diagnosis.
Remarks	The health center should complete the Employee Special Health Condition Treatment Order to follow up employees of Management IV and Management V with health worries. The health center should notify the supervisor of employees with Management V and recommend the supervisor to arrange suitable work for these employees.

06-8-4 / Stress-Relieving Massage

To sympathize for the hard work of employees and to provide job opportunities for the underprivileged, we hire people with visual impairments to provide stress-relieving massage service for employees at the HSIP and STSP plants. Employees can enjoy the massage at NT$50 for each session of 20 minutes as the travel allowance of the masseurs. In addition to creating job opportunities for the underprivileged, we have solved the travel problems of the visually impaired and provided employees with another channel to relieve stress. Statistics showed that the average massage demand at the HSIP and STSP plants was 82.5% and 65.5%.

Stress-relieving massage by the visually impaired.

06-8-5 / First Aid Training Course

There are different kinds of potential risk in daily life, and people are at risk of different kinds of health- and life-threatening occurrences and accidents. If we can make correct judgments and administer proper management at the right time within the golden era of emergency aid, we can reduce the severity of injuries. Therefore, paramedics of the health center organized a first-aid class to train the first aid skills and inoculate the first-aid concept of employees. By administering first aid to people in life-threatening situations, we can save lives within the golden time period.

First-aid class given by the health center

Reminder

The victims for climate changing.

Due to the drought, the flood and other damages caused by climate, about 50 million people were forced to leave their home. The UN predicts the number of victims will reach 250 million or 1 billion in 2050.

07 Customer Service

07-1 Management of Customer Safety

About 68% of our employees work at the customer's locations in most cases; therefore, the management of customer safety deem exceptionally important. Based on the spirit "Service by Hermes-Epitek", we provide customers with full value-added services ranging from sales, installation, technical support, process development, training to system relocation. Over the past years, we have accumulated much experience in customer safety management. In fact, we have been initiating various management measures and activities as described below.

07-1-1 / EHS KPI

Based on the departmental EHS KPI launched in 2008, we started the KPI management. We also adjusted the KPI from time to tome according to the changes in targets, times and objectives. Based on the revised edition in November 2011, we applied the new version of EHS KPI for management in 2012. In this revision, besides including EHS SMBWA to the KPI, we added event recurrence prevention in the EHS activity participation rate for scoring. In 2011, we also established the EHS KPI reward system and present prizes at the quarterly service business meeting.

KPI Prize Presentation

O7-1-2 / Customer Rule e-Learning

To become familiar with the rules of customers is the basic duty of employees working at the customer's locations. Therefore, employees are requested to complete the customer rule e-learning before working at the customer's locations, in order not to break the rules of customers. Apart from reminding employees of the safety requirements of customers, we have completed 13 versions of customer rule e-learning since September 2008 for employees. We have also arranged post-training follow-up and post-training evaluation and maintained the relevant records.

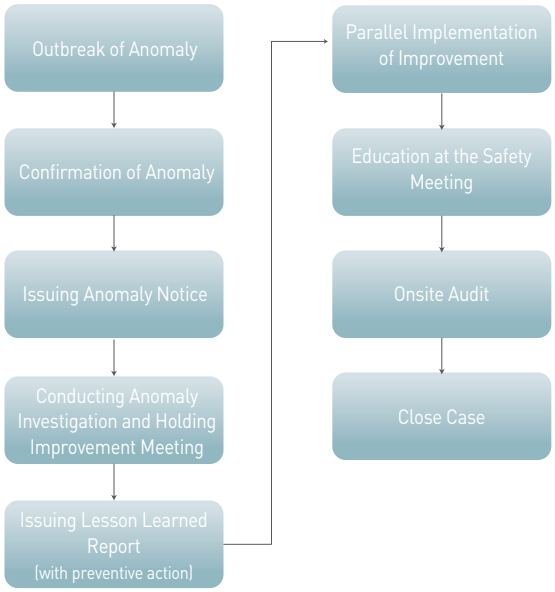
Customer Rule e-Learning Website

O7-1-3 / Anomaly Control

As a semiconductor and FPD equipment service provider, 68% of our employees work at the customer's locations Apart from understanding and following the operating requirements of customers, it is more important for employees to take effective response and handle the situation when there is an anomaly, so as to prevent the recurrence of anomalies.

When an anomaly breaks out, apart from making immediate response and handling the situation by onsite personnel, EHS personnel should understand the situation of the scene immediately after receiving such notice and issue the anomaly notice to notify related personnel. Also, EHS personnel should immediately initiate an investigation and hold the improvement meeting to scrutinize the root cause of the anomaly and take preventive action to prevent its recurrence. After the investigation and improvement meeting, the EHS department should complete the lesson learned report to educate all departments and implement the preventive action at the same time, in order to effectively prevent the recurrence of the anomaly.

Anomaly Handling Process Flow Diagram



Reminder

The Benefit of Recycling

The metal, the glass and the plastic are the recyclable trash. It usually occupies 46% of the trash.
It's the best idea to pack the drink with the Tetra Pak because the drink contains the liquid as 97% of total weight but the package as 3%. It's the most efficient way.

O7-1-4

/ Re-entry after Evacuation

When employees need to evacuate from the clean room after an accident breaks out at the customer's location, employees must not re-enter the clean room until the ERC department of the customer makes a clearance order. As it is necessary for employees to assist customers in handling the aftermaths of the event and out of the concern of the personal safety of employees, we have specifically established the Re-entry after Evacuation Regulations, aiming to securely restart the operation.

After receiving an evacuation order, onsite employees should immediately report to the department supervisor and regional EHS personnel. After receiving an evacuation report, EHS personnel should immediately confirmed the authenticity of the alert with the customer's ERC. If the alert is confirmed, EHS personnel ensure that all employees in the affected area are safely evacuated and confirm this with the customer's ERC for the reference of making a re-entry decision.

O7-2

Communication with Onsite Employees

O7-2-1

/ Communication Meeting with Department Supervisors

At Hermes-Epitek, EHS management is exceptional important to top management, and the VP or local highest supervisor will hold communication meetings with department supervisors in individual regions. Issues discussed at the meeting included the recent EHS management outcomes, anomaly handling status, the status of implementation of resolutions made at the EHS department publicity meeting, sharing and communication. Apart from recognizing the EHS management contributions of departments, top management has reminded employees of the important safety concepts. By disseminating safety concepts to employees, top management has aimed at establishing the safety culture of the company.


Recycling.
Infinite-effective

07-2-2 / Service Business Meeting

At the monthly service business meeting, we discuss issues relating to the work, service or activities at the customer's locations, as well as EHS-related issues. As attendees are the service business supervisors of all departments, the meeting is an important channel for the communication between the EHS management department and engineering department supervisors. At the meeting, the EHS department reports issues relating to EHS management activities so as to ensure two-way communication with other departments and to facilitate the promotion and follow-up of EHS affairs.

07-2-3 / Operation Safety Meeting

At the operation safety meeting, the EHS department communicates with engineering departments the related EHS regulations and affairs (e.g. the lesson learned from anomaly events). The meeting is held by region or by customer plant site for EHS personnel to communicate with onsite employees, leaders or department representatives. The operation safety meeting originated from the "Customer New Plant Site Start-up EHS Activity Instructions", and it was gradually expanded to the plant site of customers without system installation to promote the EHS regulations of customers and promote related EHS affairs.

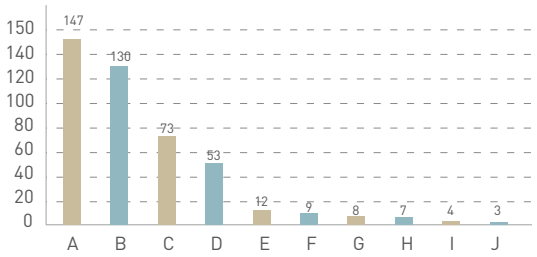

EHS affairs promotion at the operation safety meeting.

07-2-4 / EHS SMBWA

To us, workplace safety management has become an important issue over time. The EHS department continuously applies the safety management by walking around (SMBWA) and conducts inspections to detect problems so as to help onsite employees to solve problems, enhance their safety awareness, and maintain onsite operation safety.

Apart from implementing SMBWA according to the "Customer New Plant Site Start-up EHS Activity Instructions", we promoted SMBWA to the plant site of customers without system installation in 2011. Overall, we conducted 446 inspections at the customer's plant sites in 2011 and detected a great number of deeds and defects. We commended the deeds and reported the defects to the superior for management.

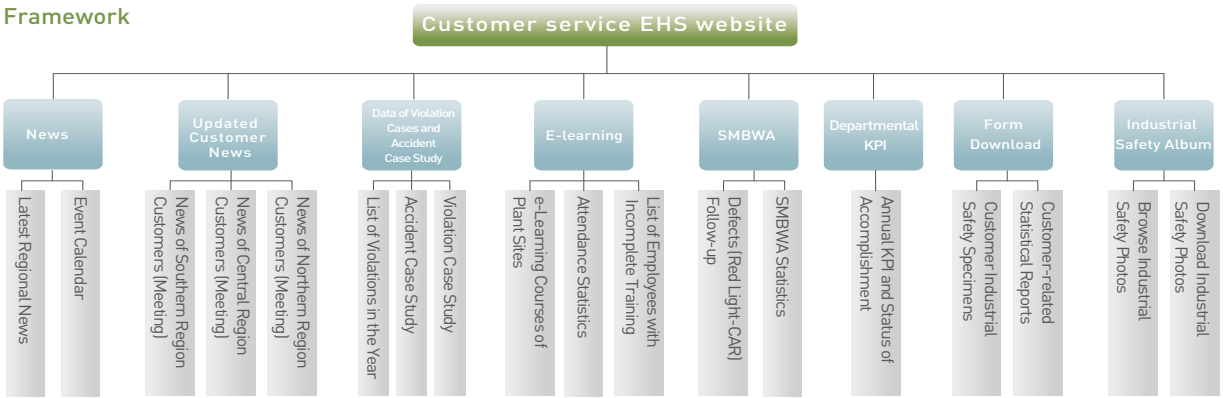
SMBWA Counts in 2011



07-2-5 / Customer Service EHS Website

The aim of the Customer Service EHS Website is to post the important news of different regions and provide employees with a consistent platform for communication. Contents posted on the website include regional news, updated customer news, data of violation cases and accident case study, SMBWA, departmental EHS KPI, and form download.

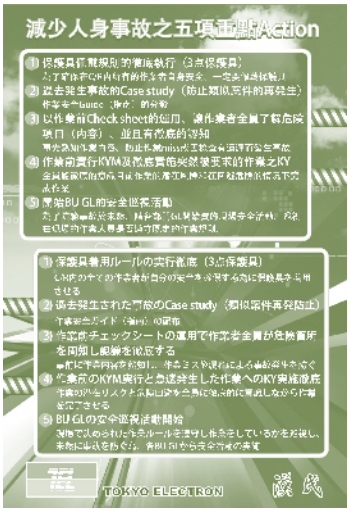
EHS Website Framework



07-3

Prevention of Accident Recurrence

Both the original suppliers and we are committed to the effective prevention of accidents and accident recurrences. In the beginning of 2011, we initiated the Accident Recurrence Prevention Policy featuring five major actions: (1) full implementation of PPE use; (2) case study of past accidents; (3) use of old checklists for employees to understand the risk items; (4) implementation of KY before operations and request of unplanned KY; and (5) safety inspections of supervisors.



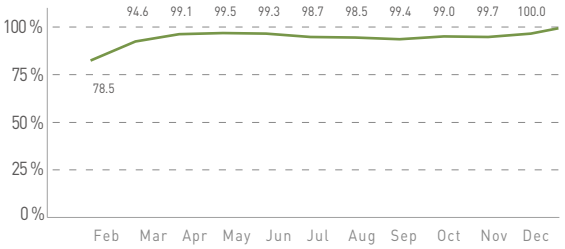
Poster

07-3-1 / Implementation of the Use of 3-Point PPE

PPE is the last line of protection of the personal safety of employees in case of an accident. Therefore, employees are requested to wear the 3-point PPE when they are in position. The 3-point PPE refers to the inner helmet for protecting the head, goggles for protecting the eyes (or chemical protective gaggles), and safety shoes for protecting the feet.

This includes the inventory of PPE quantity, procurement and replacement of PPE, onsite audit, audit report highlight and defect follow-up management. In 2011, we audited 10,295 employees. Despite the low PPE use rate, the correct use of the 3-point PPE was nearly 100%. AS it takes time to develop the operation safety habit, we will continue to promote the use and correct use of the 3-point PPE.

Audit Results of 3-Point PPE Use in 2011



07-3-2 / Operation Safety Guide

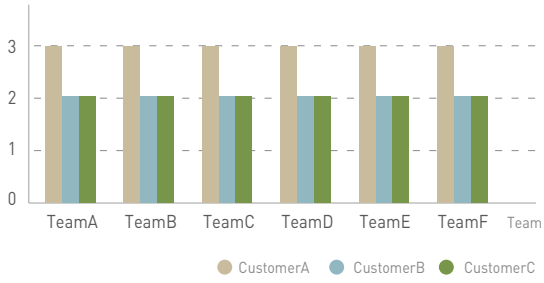
After sorting out the most common operations in the past, we produced the Operation Safety Guide for employees to carry with them so as to remind them to pay attention of the safety of related operations. Onsite supervisors can also educate employees and confirm operation safety in advance. The contents of the Operation Safety Guide include (1) 7 safety items; (2) electrical operations; (3) high-elevation operations; (4) protective devices; (5) release of interlock operations; (6) operations at open floor; (7) operations near OHT; and (8) safety publicity.

Operation Safety Guide

07-3-3 / Department Supervisor SMBWA

The SMBWA conducted by department supervisors is different from the EHS SMBWA. Department supervisors should conduct the SMBWA for the safety of onsite employees, so that they can feel the safety focus and safety concern from department supervisors. With the assistance of original suppliers, we arrange supervisor inspection training every August since 2011. The training included OJT (on the job training) and onsite demonstration to enhance the safety awareness of department supervisors and employees at the workplace of customers.

Department Supervisor SMBWA Counts form August to December 2011



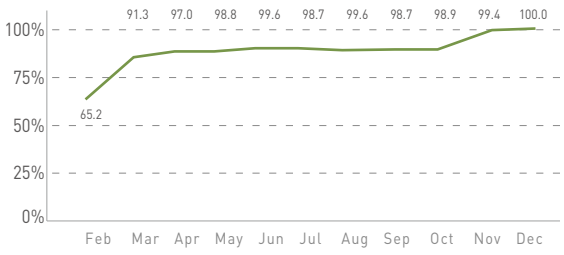
07-3-4 / KY Implementation

"KY" is an acronym formed with the Japanese Romanization of "risk preview"; i.e., the "toolbox meeting" known to the public. By identifying and previewing the potential risk before operation, we can remind employees to follow the related safety instructions. With the assistance of original suppliers, we developed the KY form in Taiwan and updated the KY form by combining the past checklists and KYs. Also, at the KY form completion presentation, we showed employees how to activate the related management mechanisms, such as the onsite audit, defect highlight, and the follow-up and management of detected defects.

As some customers have included the toolbox meeting in their contractor management, we voluntarily communicated with the EHS unit of customers and explained the design and completion of our KY form to convince them to use our KY form. In the communication, customers praised our self-management mechanism and KY form.

In 2011, we conducted 2,586 onsite KY audits. Despite the low implementation rate in the first few months, the KY implementation rate was near 100% in the later months.

KY Implementation Results (passing rate) in 2011



07-3-5 / Publicity of Lesson Learned from Accidents

In order to prevent the recurrence of the similar accidents, education and publicity are very important. Therefore, the EHS department selected some typical examples from past accidents to educate employees. To ensure that the lesson learned is communicated to every employee, EHS personnel quizzed them at the SMBWA. If employees could not answer the question, EHS personnel educated them with the accident of photocopying with dust-free papers.

In 2011, EHS personnel made 2,422 times of quiz at the onsite audit, and the employee passing rate is nearly 100%.

O8
Credits and Prizes


O8-1 / Credits from Customers

Time	Unit	Prize
2011	Taiwan Semiconductor Manufacturing Corporation	FAB 14 Outstanding Contractor ESH Performance Award
2011	Taiwan Semiconductor Manufacturing Corporation	FAB 15 Outstanding Contractor ESH Performance Award (December)
2011	Taiwan Semiconductor Manufacturing Corporation	FAB 15 Outstanding Contractor ESH Performance Award (November)
2011	Taiwan Semiconductor Manufacturing Corporation	FAB 15 Outstanding Contractor ESH Performance Award (October)
2011	Taiwan Semiconductor Manufacturing Corporation	FAB 15 Outstanding Contractor ESH Performance Award (September)
2011	Taiwan Semiconductor Manufacturing Corporation	FAB 15 Outstanding Contractor ESH Performance Award (August)
2011	Taiwan Semiconductor Manufacturing Corporation	FAB 12 Outstanding Safety and Health Management Contractor for the First Half of 2011
2010	Taiwan Semiconductor Manufacturing Corporation	FAB 12 Outstanding Contractor Safety and Health Management for the Second Half of 2011
2010	United Microelectronics Corporation	F12 P3 Best EHS Supplier (Tool Vendor)
2009	Taiwan Semiconductor Manufacturing Corporation	2009 Security Management Award (Ganxin Award)
2009	Chimei Innolux Corporation	Best Safety Partner
2009	Taiwan Semiconductor Manufacturing Corporation	FAB 14 Outstanding Contractor ESH Performance Award
2009	Taiwan Semiconductor Manufacturing Corporation	FAB 14 High Risk Operation Outstanding Contractor
2008	Taiwan Semiconductor Manufacturing Corporation	FAB 14 Outstanding Contractor ESH Performance Award (Q2)
2008	Taiwan Semiconductor Manufacturing Corporation	FAB 14 Outstanding Contractor ESH Performance Award (Q3)
2008	Winbond Electronics Corporation	Certificate of Appreciation from the Chairperson of the Central Taiwan Science Park Equipment Suppliers' Meeting
2008	AU Optronics Corporation	Second Prize, Central Taiwan Science Park Phase III Contractor Industrial Safety Ratings
2007	Chimei Innolux Corporation	First Prize, Plant XII Contractor EHS Evaluation
2006	Taiwan Semiconductor Manufacturing Corporation	Best Safety Contribution Contractor of the Year, Plant XIV
2006	Taiwan Semiconductor Manufacturing Corporation	Outstanding OHS Personnel of the Year, Plant XIV
2006	Chimei Innolux Corporation	Certification of Appreciation from the Contractor Agreement Organization, Plant XXIII
2006	Inotera Memories, Inc.	First Prize, Plant XII Contractor EHS Evaluation
2006	ProMOS Technologies Inc	Outstanding EHS Management Personnel, HSIP Plant
2006	ProMOS Technologies Inc	Outstanding EHS Management Personnel, HSIP Plant