

NOURISHING SUSTAINABLEENVIRONMEMT

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NOURISHING SUSTAINABLE ENVIRONMEMT

3.1 An Overview of Key Data



Note : *1 Including purchased power, purchased green power and diesel power generation.

*² Including bio-diesel.

3.2 Energy and Resources Management

3.2.1 Energy Management

Global warming has led to extreme weather events and climate and environmental changes have resulted in losses in human life and properties, triggering higher concerns for climate related issues from the public. FENC regards the management of energy and greenhouse gasses as major daily operational objectives, and continues to promote measures for energy conservation and carbon reduction to improve efficiency of energy consumption. Through energy and greenhouse gasses management, the Company aims to mitigate climate change and lower the risks brought by fluctuation of energy price and supply. Also, we conform to the energy policies of local governments. For example, Hsinpu Chemical Fiber Plant and Kuanyin Chemical Fiber Plant managed to reduce power consumption by 2.1% and 1.8% in 2015 respectively. This progress was ahead of the government's power conservation goal of 5% in five years. In 2015, Hsinpu Chemical Fiber Plant helped the Bureau of Energy, MOEA, to investigate unit energy consumption of polyester filament and polyester textured yarn products. The findings of the investigation are used by the government for analysis and promotion of energy conservation of textile industry. We have also formulated internal energy management policies in accordance to local regulations for plants in China and devised energy conservation and carbon reduction procedures and plans. Meetings are held monthly to follow up on the plans and related projects and methods have been submitted and reported to competent authorities.

Energy Management Methods at Production Sites:

- Designate a unit responsible for energy management and hold meetings at regular intervals for follow up and review.
- Establish energy management related systems and set energy conservation goals.
- Follow up on energy conservation project results and include performance as criteria for reward and compensation.
- Enhance promotion of energy conservation awareness through means such as circulation of energy conservation publications and sharing of case studies.
- Promote energy management related certification.

▶ The Production Sites That Have Passed Environmental Management Certification

Certification Standards	Production Sites That Passed Certification
ISO14001 Environmental Management Systems	Hsinpu Chemical Fiber Plant, Kuanyin Chemical Fiber Plant, Kuanyin Dyeing and Finishing Plant, Oriental Petrochemical (Shanghai) Corp., Far Eastern Industries (Shanghai) Ltd., Wuhan Far Eastern New Material Ltd., Oriental Industries (Suzhou) Ltd., Far Eastern Dyeing & Finishing (Suzhou) Ltd.
ISO 50001 Energy Management Systems	Hukou Mill, Far Eastern Industries (Wuxi) Ltd.

Energy Task Force

FENC established the intercompany and interdepartmental "Energy Task Force" in 2010, which convenes periodically to review and examine energy consumption status and formulate energy conservation implementation plans to track the results of energy conservation projects. Furthermore, the Energy Task Force also organizes technical exchange meetings to explore energy conservation opportunities and introduce energy-saving technology in order to achieve energy conservation objectives. At each production site, FENC formulates related guidelines and regulations in accordance to the polices devised by the Task Force to ensure execution and provide related detailed information for the Task Force to conduct assessment on related projects.

Energy Conservation Execution Directions :

Energy Task Force Organizational Structure

- 1 · Explore energy conservation opportunities to continue enhancing efficiency of energy consumption.
- 2 Phase out outdated production facilities and improve the efficiency of high-consumption facilities to establish a comprehensive energy management system.



Responsibilities of the Energy Task Force



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In 2015, the Energy Task Force invited external experts of Industrial Technology Research Institute to attend Far Eastern Cross-Strait Energy Conservation Technical Exchange Conference and share on developments of energy conservation management system, electrical energy technology, and intelligent energy-saving technology, so that the designated onsite staff were introduced to the latest trends of energy conservation. Furthermore, the Task Force launched two projects in 2015—Solar Energy Project and Regional Energy Integration. For Solar Energy Project, the Task Force summoned designated onsite staff of all production sites to jointly assess the benefit of building solar power facilities, and decided to build solar photovoltaic (PV) power stations at four production sites in China, reducing the amount of purchased power. For Regional Energy Integration Project, the Task Force launched integration of steam energy at Guanyin Industrial Park and integration of power and heat pipelines at Fengxian District in Shanghai; however, after assessment, the project was temporarily set aside due to pipeline authorization issues. Nonetheless, we will continue to explore opportunities of energy integration in order to enhance overall efficiency of energy consumption.

To enhance the quality and efficiency of energy data analysis, the Task Force plans to launch Intelligent Energy Data Analysis System in 2016. Through more precise analysis of energy conservation performance of each production line and trends of energy consumption, the Task Force aims to improve management decision-making in order to realize the goals of corporate sustainable development.

" Establish Online Intelligent Energy Data Analysis System

Online Intelligent Energy Data Analysis System reports back energy data based on each production line at production sites at regular intervals, which enhances precision of energy data and efficiency of energy data integration. The system then carries out statistical analysis to provide references for management decision-making. The system also includes energy conservation plans and outstanding innovative energy conservation projects at each production site, as well as various regional energy policies, facilitating the exchange of energy information. The system will be launched incrementally in 2016. In the future, the frequency of data reporting will be increased according to the level of automation of instruments at the production sites, further establishing dynamic energy management and analysis system.



Organize Cross-Strait Energy Conservation Technical Exchange Conference and Invite External Experts for Seminar



The Energy Task Force held the First "Far Eastern Cross-Strait Energy Conservation Technical Exchange Conference " from May 8 to 15, and June 8 to 12, 2016. Each production site delegated staff members to visit plants on both sides of the strait. Through the technical exchange, the employees jointly explored future directions for energy conservation (e.g. energy conservation for compressor and boiler), and shared sixteen energy conservation projects that achieved outstanding results and were worth learning from by all production sites, in order to facilitate the sharing of experience and technology of energy conservation.

Keys of Exchange :

- Energy consumption and achievements of energy conservation at each unit.
- Status of implementation of 2015 energy conservation projects.
- Technical exchange on innovative or outstanding energy conservation projects.
- Technical exchange on energy conservation for facilities and systems.
- Progress of the implementation of projects (e.g. : cogeneration, replacement of coal boiler with gas boiler and solar PV power stations).
- · Experience sharing on operation of facilities.
- · Onsite inspection of major energy-consuming facilities.

The Energy Task Force also invited experts of ITRI to give keynote speeches at the "Cross-Strait Energy Conservation Technical Exchange Conference," sharing with employees developments of energy conservation management system, electrical energy technology and intelligent energy-saving technology, as well as other case studies, so that employees could gain more knowledge on energy conservation and understand that the key of future development lies in intelligent manufacturing.

Energy Consumption

F	Taiwan			China		
Energy Type	2013	2014	2015	2013	2014	2015
Purchased Power	3,538,467	3,402,071	3,395,299	2,154,311	2,266,831	2,246,890
Purchased Green Power	0	0	720	0	0	0
Diesel Power Generation	0	0	4,851	0	0	0
Electricity	3,538,467	3,402,071	3,400,871	2,154,311	2,266,831	2,246,890
Gasoline	2,862	2,577	2,652	0	0	0
Diesel (Including Bio-Diesel)	12,210	24,079	19,204	10,092	10,439	11,147
Liquefied Petroleum Gas (LPG)	4,599	3,869	4,372	110	101	121
Liquefied Natural Gas (LNG)	1,675,222	1,053,061	955,373	731,134	829,226	863,324
Heavy Oil/Fuel Oil	2,511,893	1,572,132	353,838	348,055	107,547	15,315
Coal	1,126,542	1,146,030	1,058,493	0	0	0
Coal Water Mixture	25,930	1,448,884	3,102,896	2,591,001	2,902,723	2,565,703
Ethylene tar	0	0	0	580,424	554,192	631,541
Purchased Steam	107,154	18,044	2,082	545,894	531,531	640,430
Total	9,004,879	8,670,746	8,899,780	6,961,021	7,202,590	6,974,469

Notes : • Heating value of Taiwan is based on "2014 Taiwan Energy Statistical Hand Book." Heating value of Mainland China is calculated based on "General Principles for Calculation of Total Production Energy Consumption GB/T 2589-2008." Heating value coefficient of purchased steam is 2.768 GJ/t; heating value coefficient of coal water mixture is between 18.171 – 18.804 GJ/t. This different is mainly due to different sources in Taiwan and China.

External energy consumption outside of the organization is not included.



Average Energy Intensity



Unit : GJ



⁻ Petrochemical - Polyester - Textile - The Company

Note : The textile business does not include Far Eastern Apparel (Suzhou) Co., Ltd.

Total energy consumption of FENC in 2015 was similar to 2014, where total energy consumption in Taiwan accounted for 56%, and China 44%. Main types of energy consumed were electrical power and coal water mixture (CWM). In 2015, FENC reduced consumption of heavy oil and fuel oil by 78%, and used CWM instead. During the initial stage of the transition, the process resulted in increase in energy intensity; however, energy intensity lowered and stabilized in the second half of 2015.

Measures and Performance of Energy Conservation and Carbon Reduction

The Company continues to implement various measures of energy conservation and carbon reduction. In 2015, a total of 144 projects were executed. More recent measures have targeted facility and manufacturing process improvements.

Performance of Energy Conservation and Carbon Reduction

Item	2013	2014	2015
Investments Amount (NT\$ 1,000)	585,079	835,690	311,165
Energy Conservation (NT\$ 1,000)	273,982	336,452	189,258
Energy Savings *1(GJ)	724,820	601,494	608,400
GHG Reductions *2(t-CO ₂ e)	81,675	55,089	74,022

Notes : 1 • The energy conserved is calculated by comparing with energy consumptions of original facilities and manufacturing process prior to the execution of the projects; these include conserved amount of fuel oil, natural gas, electricity, CWM, and steam. Heating value of Taiwan is based on " 2014 Taiwan Energy Statistical Hand Book." Heating value of Mainland China is calculated based on " General Principles for Calculation of Total Production Energy Consumption GB/T 2589-2008." Heating value coefficient of purchased steam is 2.768 GJ/t; heating value coefficient of coal water mixture is between 18.171 – 18.804 GJ/t. This different is mainly due to different sources in Taiwan and China.

2 • GHG emission coefficient is in accordance with "GHG Emission Coefficient Management Chart " version 6.0.1 published by Bureau of Energy, Ministry of Economic Affairs (MOEA) and Environmental Protection Administration (EPA). Electricity Emission Coefficient is in accordance with local power grid; steam emission coefficient is 0.307 t-CO₂e/t; CWM emission coefficient is 1.5886 t-CO₂e/t.

▶ Performances of Energy Conservation and Carbon Reduction in 2015

			GHG Reductions (t-CO ₂ e)	
Type of Measures	Energy Savings (GJ) **	Scope 1 *2	Scope 2 * ³	Steam*4
Improvement of Production	504,827	0	8,656	49,837
Procedures Improvement of Facilities	61,958	278	9,439	412
Improvement of Product Mix, Energy Management, and Others	41,615	53	3,609	1,739
Total	608,400	74,022		

Notes : 1 • The energy conserved is calculated by comparing to energy consumptions of original facilities and production process prior to the execution of the projects; these include conserved amount of fuel oil, natural gas, electricity, CWM, and steam. Heating value of Taiwan is based on " 2014 Taiwan Energy Statistical Hand Book." Heating value of Mainland China is calculated based on " General Principles for Calculation of Total Production Energy Consumption GB/T 2589-2008." Heating value coefficient of purchased steam is 2.768 GJ/t; heating value coefficient of coal water mixture is between 18.171 – 18.804 GJ/t. This different is mainly due to different sources in Taiwan and China.

- 2 Sources of Scope 1 Emissions include natural gas and CWM. Natural gas emission coefficient is in accordance with " GHG Emission Coefficient Management Chart " version 6.0.1 published by Bureau of Energy, MOEA, and EPA. CWM emission coefficient is 1.5886 t-CO₂e/t.
- 3 · Scope 2 emissions come from electrical power; emission coefficient is in accordance to local power grid.
- 4 · Steam includes self-produced and purchased; emission coefficient is 0.307 t-CO₂e/t.

Energy Conservation and Carbon Reduction Projects in 2015



Yarn dyeing process requires large amount of water and steam. Far Eastern Dyeing & Finishing (Suzhou) Co., Ltd. strives for energy conservation and wastewater recollection. Through heat exchanger and soft water to acquire waste heat recovery, producing 70 – 100 tons of hot water over 50 degrees every day. Since implementing the project in April 2015, Far Eastern has reclaimed and reused 11,340 tons of hot water by end of December.

Intelligent Power Management System

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Hsinpu Chemical Fiber Plant introduced intelligent power management system in 2015, which can effectively monitor power consumption and enhance efficiency of energy consumption through management measures, achieving reasonable power consumption and reducing cost for power. This system is officially launched in 2016.



Sterification System Optimization



Carbon emission from combusting heavy oil is higher than using electricity, and therefore Kuanyin Chemical Fiber Plant increases pressure of esterification system to enhance production efficiency and reduce heavy oil consumption and recovers and reuses excessive steam from the esterification process, replacing traditional refrigeration with residual heat refrigeration. After the esterification system is pressurized and optimized, heavy oil consumption was reduced from 54 l/ton to 48 l/ton, a decrease of approximately 11%. Esterified steam was recovered and reused for LiBr absorption chiller, allowing the plant to use one less water chiller.

3.2.2 GHG Management

Local governments are adopting stricter policies regulating GHG emissions. In 2015, Taiwan passed the "Greenhouse Gas Reduction Act," and Mainland China piloted carbon trading and revised the " Law on Prevention and Control of Atmospheric Pollution." FENC also established GHG management mechanism at all of its production sites. The Energy Task Force members at all the production sites discuss, formulate, and implement GHG management with related departments in the plants regularly. Furthermore, FENC has been a step ahead of the government, and launched a GHG emission inventory and audit at all production sites, establishing a sound foundation for further reduction of GHG emission.

In response to "Trial Procedures of Shanghai Municipality on Carbon Emission Administration", Oriental Petrochemical (Shanghai) and Far Eastern Industries (Shanghai) formulated carbon emission and carbon trade management organization regulations and procedures, establishing carbon emission management division, carbon trade decision-making division, carbon trade capital trading division, and carbon trade confirmation division, to control the process of carbon trading. In 2015, Shanghai City launched trading for Chinese Certified Emission Reduction (CCER), and Oriental Petrochemical (Shanghai) has already registered on the CCER platform, allowing it to trade in accordance to its own needs.

In response to government's promotion of GHG reduction policy, Hsinpu Chemical Fiber Plant has signed a five-year (2016-2020) voluntary GHG reduction initiative with Industrial Development Bureau, MOEA, and plans to reduce CO_2 emission by 50,000 tons in five years.

Carbon Reduction Measures at Headquarters- Conference Call

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FENC has production sites across Taiwan and Mainland China. To reduce environmental impact and enhance communication efficiency, the company has adopted con-call meetings for years. To reinforce meeting quality, FENC has fully upgraded all con-call systems over the past two years. In 2015, the headquarters hosted 8,342 hours of con-call meetings with 95,000 participation; this not only saves travel expenses, but also achieves the goal of carbon reduction.

GHG Inventory

In order to gain full understanding on the status of GHG emission for the formulation of GHG reduction plan, FENC conducted an inventory on GHG emissions of all production sites in 2015. All production sites must conform to ISO 14064-1 or local official standards and conduct an inventory and calculation of GHG emissions, and must complete third party auditing. Currently, 14 out of 15 production sites have completed (or in progress) GHG emission audit by third party. Through establishing inventory data, FENC can set reduction goals and execution priorities, so as to ultimately reduce GHG emissions for mitigation of climate change.

Oriental Petrochemical (Shanghai) and Far Eastern Industries (Shanghai) began to replace coal boilers with gas boilers in December 2015. It is projected that in 2016, GHG emission intensity per unit of product will be reduced.

► GHG Emission

Unit : kt-CO₂e



Notes : • Production sites that completed ISO 14064-1 standards for GHG inventories in 2014 included : Oriental Petrochemical (Taiwan), Hsinpu Chemical Fiber, Kuanyin Chemical Fiber Plant, Oriental Petrochemical (Shanghai), Far Eastern Industries (Shanghai), Far Eastern Industries (Suzhou), Far Eastern Industries (Wuxi), Far Eastern Apparel (Suzhou), Oriental Industries (Suzhou), and Far Eastern Dyeing and Finishing (Suzhou).

 Production sites that completed or were in progress of ISO 14064-1 standards for GHG inventories in 2015 included : Oriental Petrochemical (Taiwan), Hsinpu Chemical Fiber Plant, Kuanyin Chemical Fiber Plant, Far Eastern Fibertech, Neili Texturizing Plant, Hukou Mill, Oriental Petrochemical (Shanghai), Far Eastern Industries (Shanghai), and Wuhan Far Eastern New Material.

- · Scope 1 includes CO₂, CH₄, N₂O, PFCs, HFCs and SF6; Scope 2 includes CO₂, CH₄, and N₂O. Scope 3 emissions are not calculated.
- Oriental Petrochemical (Shanghai) and Far Eastern Industries (Shanghai) conform to SH/MRV-004-2012, where only CO₂ emission has been calculated.
- Total emissions do not include CO₂ emission from biofuel.



Average GHG Emission Intensity

Unit : t-CO₂e/metric ton of product



Note : The textile business does not include Far Eastern Apparel (Suzhou) Co., Ltd.

Utilization of Renewable Energy

Renewable Energy Solar Power Station

Solar power is an environmental-friendly and sustainable renewable energy in that it never runs out. To increase the use of green energy and reduce GHG emissions and environmental impact, FENC launched Solar Power Station project in 2015 and assessed feasibilities and benefits of installing solar PV panels on the roofs of production sites.

Benefits of Solar Power :

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- · Decrease quantity of purchased power and reduce environmental pollutions
- Solar PV panels installed on roofs can lower daytime indoor temperature, and reduce the use of AC
- Reduce carbon emissions and cost of purchasing rights for carbon emissions
- Subsidy from the government

Considering that production sites in Taiwan have relatively lower daylight hours and higher installation cost, we decided to install solar PV panels at four production sites in China; these are Oriental Industries (Suzhou), Far Eastern Dyeing & Finishing (Suzhou), Far Eastern Industries (Shanghai), and Far Eastern Industries (Wuxi). Total installed capacity is 9.63 MW. Onsite inspection and administrative application procedure have been completed for Oriental Industries (Suzhou) and Far Eastern Dyeing & Finishing (Suzhou) in 2015, and roof reinforcement constructions have also started. Solar PV panels are projected to be in place by April 2016, which will begin operation in July.



GREEN

線電標字第1051000290號

Subscription to Green Power

To support the development of renewable energy in Taiwan, FENC voluntarily purchased 200,000 kWh of green power in 2015, and will increase the amount to 300,000 kWh in 2016, showing our support for local renewable energy, such as wind power, solar power, and geothermal power, while also contributing to environmental protection through reducing carbon dioxide emission of traditional power generation.

3.2.3 Water Resources Management

Water Withdrawal and Sources

Unit : 1,000 kl

T	Taiwan			China		
Туре	2013	2014	2015	2013	2014	2015
Tap Water	4,917	4,791	5,044	6,977	5,888	5,337
River, Lake, and Creek Water	1,823	1,887	1,853	2,402	2,690	2,844
Well Water and Groundwater	2,903	2,365	2,005	0	0	0
Rainwater	0	0	0	3	11	64
Total	9,643	9,044	8,902	9,381	8,589	8,245



Average Water Intensity

Unit : kl/metric ton of product



Note : The textile business does not include Far Eastern Apparel (Suzhou) Co., Ltd.

Water supply shortage is a common risk faced by the world. In 2015, Taiwan experienced the worst draught in 67 years, which made us understand the grave challenge water shortage poses to corporate operation. FENC is deeply concerned with water resources management and continues to review efficiency of water withdrawal in its daily operation and activities. In addition to recording meter readings every day, the Company also assesses and reviews water withdrawal status and water conservation results in monthly meetings, and devises solutions and improvement plans, such as regular maintenance of facilities, adopting new manufacturing technology, recycling and reusing of wastewater, in order to establish comprehensive monitoring and control of water resources.

In addition to development of the company and transition of the industry, Far Eastern New Century also takes into consideration land utilization needs of citizens living in the surrounding areas for water resource planning. For example, Hsinpu Chemical Fiber Plant reasonably and effectively coordinates and distributes water resources based on properties such as surface water availability and safe yield of groundwater. We pursue sustainable and balanced development of overall environment and the Company, reducing groundwater withdrawal in order to preserve valuable groundwater resource.

Water sources of FENC's production sites include tap water, river, lake, creek, well, underground water, and rainwater. Quantity and method of water withdrawal will not bring negative influences to local ecology or people living in the surrounding areas.

In response to the risk of water supply shortage, and to minimize the increase in cost after the government begins to collect water withdrawal charge in 2016, FENC has planned ahead and implemented programs to cut cost and explore new water resources in order to achieve the goal of sustainable production.

In 2015, the total water withdrawal was 17.147 million kl, a decrease of 2.8% compared to 2014. Main water source was tap water, which accounted for 61% of total withdrawal. Through installation and improvement of rainwater collection system, FENC increased utilization of rainwater, which grew by 20 times compared to 2013. Also, to protect precious underground water resources, as we are aware of

the environmental issues resulted from over pumping of underground water, the Company has gradually reduced volume of underground water used over the years. Among three major businesses, the textile business is unique and requires large volume of water withdrawal, and therefore, has higher average water intensity.

Cases of Water Resources Management

Water Resources Management Program		Actual Cases
	Water-saving cooling tower	Increase concentration multiple of cooling water
	Water-saving faucet for everyday use	Water for wastewater treatment changed from plant water to
Reduction of Water	Reduce volume of underground water used	RO concentrated water
Withdrawal	 Reduce frequency of water pump motor (Hz), and reduce volume of water pumped 	 Close hand sampling spout of boiler to reduce volume of water flowing out
	Change to low liquor ratio dyeing machine	Raw water enters active carbon filter bed directly
	Set up wastewater recycling facilities	Recycle condensate
	Recycle cooling tower discharge	\cdot Recycle discharge water after circulating cooling and use for
Recycling and	 Recycling and reusing of reclaimed water 	flue gas desulfurization system of boiler
Reusing of Water	Reusing low-contamination dyeing wastewater in the dyein	 Recycle high-pressure steam condensate
	process after bioprocessing	Change ultra-filtering cross-flow filtration to dead-end filtration
	Establish rainwater collection system	to increase volume of water recycled
Ensuring Water Supply	Build water pools to ensure safety stock during dry periods	

Recycled Water Volume



Ratio of Recycled Water to Non-recycled Water



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Water Reduction Measures and Performance Assessment

Region	Investment Amount (NT\$ 1,000)	Annual Water Savings (kl)	Ratio of Water Savings to Total Water Withdrawal
Taiwan	2,800	124,500	1.40%
China	19,266	666,084	8.08%
The Company	22,066	790,584	4.61%

Notes : The volume of water saved is calculated by comparing to water withdrawals of original facilities and manufacturing process prior to the implementation of the projects.

Compared to 2014, the volume of recycled water increased by 5.1% in 2015. It was mainly because Kuanyin Chemical Fiber Plant and Far Eastern Industries (Shanghai) started using water-recycling facilities in 2015, and Far Eastern Dyeing & Finishing (Suzhou) increased the recycling and reuse of reclaimed water produced through manufacturing process. Furthermore, FENC invested approximately 22 million NTD in 2015 for the execution of various water conservation projects, achieving water conservation of 790,000 kl/year. Recycling of reclaimed water and rainwater collection were two projects that achieved the greatest results.

3.2.4 Outstanding Achievements

Winning Unit



- 1		, wards	/ maraning office
	FENC	Honored with "Energy Saving Month "Top Energy Saving Benchmark in Textile Industry.	Bureau of Energy, Ministry of Economic Affairs
	Far Eastern Industries (Wuxi)	Awarded as 2014 Excellence Business in the field of energy- saving technology and new product promotion.	Energy Conservation Supervision Center of Wuxi City, Jiangsu Province
	Far Eastern Industries (Shanghai)	Awarded as Fengxian District Standardization rating of level B.	Fengxian District of Shanghai Environmental Protection Bureau
	Far Eastern Industries (Suzhou)	Honored with a Three-Star Enterprise in the field of energy efficiency.	The People's government of Suzhou Municipality

FENC Honored with Bureau of Energy's " Energy Saving Month " Top Energy Saving Benchmark in Textile Industry



According to Bureau of Energy's energy auditing data, FENC's chemical fiber production sites in Taiwan (including Hsinpu Chemical Fiber Plant, Kuanyin Chemical Fiber Plant, and Far Eastern Fibertech) have accumulated 11% of power saving rate from 2011 to 2013,

saving a total of 275 million NTD. The Company has also reduced 66,000 tons of CO_2 , which is equivalent to the amount of CO_2 absorbed by 180 Daan Forest Park. With such excellent performance in energy saving, we were honored with the Top Energy Saving Benchmark in Textile Industry during Bureau of Energy's "Energy Saving Month."

FENC has implemented various energy conservation and carbon reduction projects, requiring all plants to submit annual energy conservation plans. Designated energy personnel host energy meeting monthly to review and follow up on progress of energy conservation projects. Energy conservation performance and unit energy consumption are included as criteria for performance bonus calculation, and energy conservation projects are incorporated into proposals for improvement system, helping the Company to achieve power saving goals.

In 2015, Hsinpu Chemical Fiber Plant, Kuanyin Chemical Fiber Plant, and Far Eastern Fibertech submitted 95 energy conservation projects in areas of manufacturing process, facilities, product structure, and energy management measures. The project that achieved the greatest result was the introduction of residual steam of CWM boiler to LiBr absorption chiller, which saves approximately 1.5 million kWh/year.

3.3 Materials Management

FENC has long strived to develop green manufacturing technology. In addition to reducing energy consumption through production process, we also tried to reduce the amount of raw materials and materials used. Through visionary and innovative thinking, FENC gradually adjusts production process and manufacturing technology to lower unit consumption in order to achieve economic and environmental benefits.

Each production site carries out regular reviews to monitor the utilization of raw materials, introduce new technology and systems and enhance efficiency of raw material utilization. Also, FENC has formulated implementation rules for proposal of improvement, encouraging employees to put forth solutions to reduce consumptions; and through executing facility maintenance and evaluation of suppliers, we ensure the quality of materials and thus are able to improve yield rate. For example, Kuanyin Dyeing and Finishing Plant planned to install automated weighing and conveyance system for liquid dyes and aids, which rationalizes amount of dyes and aids used and avoids unnecessary waste.

The Company has also formulated related safety management regulations regarding hazardous materials, including safety guidelines, storage method, and emergency response measures for leaking and provide trainings for related personnel. In 2015, there was no incidence of leaking of oil, fuel, or waste chemicals.

3.3.1 Raw Materials Management

FENC's Production Business covers petrochemical, polyester and textile, and raw materials account for the largest share of production cost, and quality of raw materials is the key factors that affect the yield rate. Therefore, secured raw material supply and outstanding quality are our top priorities for raw material procurement.

With highest standards in the industry, we strictly follow internal procurement management procedures and procurement regulations to select raw material suppliers that abide by laws and CSR regulations. To achieve stable supply, raw materials are provided by a number of suppliers, which ensures flexibility that helps us to react quickly to rapidly changing market of raw materials. At the same time, we study the operational situation of suppliers through interviews and market research, so we can make corresponding adjustments when a supplier cannot provide stable supply, ensuring production security and achieving the goal of sustainable management.

Procured Amount of Important Raw Materials

Unit: 1,000 metric tons

Raw Materials	Source (Region / Country)	2011	2012	2013	2014	2015
PX	Japan, Korea, Singapore, Indonesia, Malaysia, Kuwait, China	1,013	976	941	848	905
РТА	Taiwan, China, Korea, Japan, Thailand	1,230	1,276	1,263	1,317	1,260
MEG and Bio-MEG	Taiwan, Saudi Arabia, India, Canada	512	522	534	516	506
Cotton (Including Organic Cotton and Recycled Cotton)	Taiwan, USA, Brazil, Australia, China, India	39	87	85	82	73

Notes : Some PTA are self-produced by Oriental Petrochemical (Taiwan) and Oriental Petrochemical (Shanghai) after procuring raw material PX. The remaining PTA is purchased externally.

In response to the global trend of petrochemical industry's transition towards low-carbon emission and environmental-protection industry, FENC upholds the core value of innovation and invests in research and development, developing and utilizing biomaterials and environmental-friendly plastics, such as Bio-MEG, Bio-PTA, 100% Bio-PET, and PLA. Furthermore, we also use environmental-friendly raw materials, such as organic cotton, BCI cotton, so as to lower the negative impact on environment and minimize chemical substances' effects on human health.

3.3.2 Packaging Material Recycling and Management

FENC avoids excessive packaging during transportation of products. When packaging is inevitable, our priority is to use environmentallyfriendly materials, and recycle and reuse packaging materials. In addition to doing our own recycling and reutilization, we also collaborate with recycling companies. Qualified contractors help to recycle packaging materials from domestic clients, sort the recycled materials, and sell back to us the packaging materials that are still in good conditions. Every month, we calculate the amount of packaging materials recycled, recycle rate, and achievement rate, and review items we fail to achieve. Through packaging materials recycling management mechanism, the Company has lowered amount of materials used and cost, and at the same time, reduces waste materials.

FENC achieved 55% packaging materials recycle rate in 2015. For plastic bases and plates, recycle rates were 164% and 100% respectively. We not only execute the recycling and reuse of packaging materials thoroughly, but also recycle packaging materials of other companies in the industry, and that is why recycle rates of certain products exceeded 100%. Furthermore, Oriental Petrochemical (Shanghai) changed packaging bags of NG products from new bags to recycled bags in 2015, and used the bags repetitively, which also increased the recycle rate. FENC extends the life cycle of materials through packaging materials recycling management, achieving sustainable reuse of resources.

3.4 Pollution Prevention and Waste Management

FENC complies with regulations of "CSR Policy" and adopt preventive measures for pollution, focus on handling of waste materials and avoiding air, water, soil pollutions. We prioritize the consideration of environmental risks in all production processes and strive to minimize pollution. We also faithfully report amounts of wastewater, emissions and waste materials as well as abide by all related laws and regulations.

3.4.1 Air Pollutant Discharge Management

Through pollution prevention facilities, FENC processes pollutants produced through manufacturing processes and continues to review existing facilities and production processes to find areas for improvement. For example, Oriental Industries (Suzhou) installed washing facility at where waste gases are emitted. Kuanyin Dyeing and Finishing Plant changed dye sublimation printing to water transfer printing, and grind decomposable plant materials into paste and uses it as solution for laminating machine. Kuanyin Chemical Fiber Plant carried out wastewater processing plant expansion by adding a cover to prevent the odor from spreading. All these measures can reduce amount of VOCs emitted and prevent VOCs from spreading.

Furthermore, with the promulgation of "Shanghai City Measures for the Pilot Project of Collecting Volatile Organic Compounds Pollution Discharge Fees," Far Eastern Industries (Shanghai) and Oriental Petrochemical (Shanghai) have formulated reduction of VOCs emission plans, adopting Leak Detection and Repair (LDAR) to manage all VOCs discharge points, and carried out identification, photographing, numbering, recording, and labeling. The Company also conducts inspections and repairs leakages in accordance with the agenda set in the plans.

Total air pollutant emission in 2015 was 2,177 tons, a 2.6% decrease from 2014. SO_x emission was reduced by 33.7%, and particular matter pollutants by 29.3%. The main reason for this was that Hsinpu Chemical Fiber Plant and Kuanyin Chemical Fiber Plant built CWM boiler pollution prevention facilities and desulphurization towers, effectively lowering pollutant emission. VOCs emission dropped by 26.1%, as VOCs were collected and combusted in CWM boiler to lower the emission.



Notes : • Only gases emitted are listed.

- · Particulate matter pollutants include PM, dust, and smog.
- The data includes four types : actual measured values, annualized sample values, calculate values, and permitted amounts of emissions. Actual measured values come from Oriental Petrochemical (Shanghai), Hsinpu Chemical Fiber Plant, Kuanyin Chemical Fiber Plant, Far Easter Fibertech, Kuanyin Dyeing and Finishing Plant, Neili Texturizing Plant, Hukou Mill, Wuhan Far Eastern New Material, Far Eastern Apparel (Suzhou), and Far Eastern Industries (Wuxi); annualized sample values are from Far Eastern Dyeing & Finishing (Suzhou); calculated values are from Oriental Petrochemical (Taiwan) and Far Eastern Industries (Suzhou); permitted amounts of emissions are from Far Eastern Industries (Shanghai) and Oriental Industries (Suzhou).









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3.4.2 Wastewater Discharge Management

FENC has formulated comprehensive regulations and procedures for wastewater treatment. Sewages are all treated prior to discharge, and quality of wastewater is regularly checked to ensure compliance with government regulations. The Company has also obtained enterprise sewage discharge permit in accordance to related regulations, and discharges sewage into the water bodies legally. Furthermore, we have enhanced wastewater recycling and increased volume of wastewater recycled to reduce volume of sewage discharged. Currently, our wastewater and sewage are not reused by other entities.

Sewage Management Measures and Cases

Sewage Management Method	Actual Cases
Reduce	COD removed from high concentration wastewater through air stripping preprocessing
Pollutants from Production Process Entering into Sewage	Wastewater UASB improves quality of water effluent
	Cobalt recycled from discharged water to reduce concentration
	Onsite discharge side monitoring
Wastewater Monitoring	Wastewater plant management
	Formulation of related management guidelines
Others	Promotion of water pollution prevention
Others	Regular maintenance and repair of machines

2015 Volume of Sewage Discharged and Location

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Unit : 1,000 kl

ion	Production Site	Volume of Sewage	Sewage Treatment Method and Discharge Location
	Hsinpu Chemical Fiber Plant	1,046	Wastewater from manufacturing process is bioprocessed to meet local effluent standards before being discharged into the Fengshan River.
	Kuanyin Chemical Fiber Plant	382	Wastewater from manufacturing process is bioprocessed to meet local effluent standards before being discharged into the Shulin River.
ran	Kuanyin Dyeing and Finishing Plant	473	Wastewater is processed at onsite wastewater treatment plant before being discharged to the sewage treatment plant of the industrial park.
	Neili Texturizing Plant	103	Only domestic wastewater, which is permitted to discharge directly into sewage system.
	Hukou Mill	98	Only domestic wastewater, which is bioprocessed onsite (oxidation and aeration) before being discharged into the Desheng River.
	Oriental Petrochemical (Taiwan)	2,358	Wastewater from manufacturing process is bioprocessed (deep-well aeration and anaerobic treatment) to meet local effluent standards before being discharged into the Shulin River.
	Far Eastern Fibertech	97	Wastewater from manufacturing process is bioprocessed (contact oxidation) and undergoes the precipitation process to meet local effluent standards before being discharged into the Shulin River.
	Oriental Petrochemical (Shanghai)	1,348	Wastewater from manufacturing process, domestic sewage, and lab wastewater are all discharged to sewage treatment plant. Treated wastewater is recycled at reclaimed water recycling unit; final wastewater is discharged through underground sewage system to sewage treatment plant in eastern Fengxian District before being discharged into sea.
	Far Eastern Industries (Shanghai)	483	Wastewater is treated at the plant's wastewater treatment station before being discharged to city wastewater treatment plant.
	Wuhan Far Eastern New Material	12	Only domestic wastewater, which is directly discharged into Wuhan City's sewage system.
na	Oriental Industries (Suzhou)	140	Wastewater from manufacturing process is treated by production department using dosing chemical before being discharged to washing tower through filtering press. The water is recycled. Domestic wastewater is permitted to be directly discharged into the city's sewage network for centralized management.
	Far Eastern Industries (Suzhou)	9	Domestic and production effluents are discharged into sewage treatment plant; wastewater is treated to meet local effluent standards before being discharged into the Grand Canal.
	Far Eastern Industries (Wuxi)	4	Only domestic wastewater, which is directly discharged into Wuxi's sewage system.
	Far Eastern Dyeing & Finishing (Suzhou)	2,663	Wastewater treatment is commissioned to national sewage treatment plant.
	Far Eastern Apparel (Suzhou)	129	Domestic wastewater is treated at the plant to meet effluent standards before being discharged into city sewage network. The wastewater is ultimately discharged to sewage treatment plant in the south of the city.

Note : The differences between sewage discharge and water withdrawal come from evaporation at cooling tower. Small volume of water is lost through related manufacturing processes.

3.4.3 Waste Management

The objective of FENC's waste management is to enhance the rates of reusing and recycling waste materials produced through the production process, reducing the amount of waste from the source. All handling and removal of waste materials are in compliance with related laws and regulations, permits have been applied and obtained, and all amounts are reported. Qualified contractors are employed to remove the waste materials. The governance principle

Unit: Metric tons

Data of Waste Materials

TaiwanChinaImage: Colspan="4">TaiwanColspan="4">ChinaImage: Colspan="4">Colspan="4">Colspan="4">ChinaImage: Colspan="4">Colspan="4">Colspan="4">ChinaImage: Colspan="4">SubtotalColspan="4">SolotColspan="4">ChinaImage: Colspan="4">SubtotalColspan="4">Colspan="4">ChinaColspan="4">ChinaImage: Colspan="4">SubtotalColspan="4">Colspan="4">Colspan="4">ChinaImage: Colspan="4">SubtotalColspan="4">Colspan="4">Colspan="4">Colspan="4">Colspan="4">Colspan="4"Image: Colspan="4">SubtotalColspan="4">Colspan="4">Colspan="4">Colspan="4">Colspan="4">Colspan="4"Image: Colspan="4">SubtotalColspan="4">Colspan="4">Colspan="4">Colspan="4"Image: Colspan="4">SubtotalColspan="4">Colspan="4">Colspan="4"Image: Colspan="4">Colspan="4">Colspan="4"Colspan="4">Colspan="4"Image: Colspan="4">Colspan="4"Colspan="4"Colspan="4"Image: Colspan="4">Colspan="4"Colspan="4" <th></th>	
Image: Note:	
GenerationS51,327S59,86481,7828,8169,128Annufacturing rocess WatesSubtotalA49,561S7,85479,9677,8268,0706Recycling and ReuseA45,751S5,99275,0077,5867,4967,4967Incineration3,180A1,1903,7860.0000000Landfilling501.01612.4045.7460.00000Other Treatment Methods2763718890.000000	2015
Subtotal 449,561 57,854 79,967 7,826 8,070 Recycling and Reuse 445,751 52,992 75,007 7,586 7,496 7 Incineration 304 198 214 0 0 1 Landfiling 3,180 4,190 3,786 0.00 1 1 Other Treatment Methods 276 371 889 0 0 0	12,090
Recycling and Reuse 45,751 52,992 75,007 7,586 7,496 Increase Waste Energy Uses 304 198 214 0 <	10,991
Inergy Uses 304 198 214 0 0 Incineration 3,180 4,190 3,786 0 0 0 Landfilling 50 104 61 240 574 574 Other Treatment Methods 276 371 899 0 0 0	7,938
Incineration 3,180 4,190 3,786 0 0 Landfiling 50 104 61 240 574 Other Treatment Methods 276 371 899 0 0	0
Landfilling 50 104 61 240 574 Other Treatment Methods 276 371 899 0 0	0
Other Treatment Methods 276 371 899 0 0	3,053
	0
Subtotal 1,766 2,010 1,816 990 1,058	1,099
Recycling and Reuse 696 911 756 272 309	309
Domestic Energy Uses 0 0 0 320 340	340
Wastes Incineration 1,070 1,098 1,059 0 0	0
Landfilling 0 1 287 299	340
Other Treatment Methods 0 0 0 110 110	110
Hazardous Business Wastes0008,1176,642	5,408
Recycling and Reuse 0 0 0 7,080 5,172	3,956
Energy Uses 0 0 0 0 0	0
Incineration 0 0 0 1,012 1,416	1,390
Landfilling 0 0 0 0	0
Other Treatment Methods 0 0 25 54	

Recycling and reuse includes recycling and reuse by the plants, selling of waste materials, and recycling by commissioned contractors. Note :



of waste management is " classification reduces garbage; turn waste into valuables, turn valuables into something precious. " All production units follow classification of wastes strictly, and valuable wastes are sold through procurement department for external organizations to recycle and reuse. Qualified contractors are commissioned for the removal of invaluable wastes. We strictly review qualification of contractors. In addition to GPS tracking, FENC also conducts irregular inspections on removal and transportation of waste materials.

Hazardous business wastes produced through the manufacturing process are collected and stored at designated sites before qualified contractors are commissioned for removal and transportation. Ad hoc inspections are conducted by having personnel follow the contractors for the removal and transportation of waste materials to ensure contractors comply with all regulations. In 2015, Far Eastern Industries (Shanghai) carried out improvement for warehouse of hazardous wastes to ensure that the facility meets windproof, rainproof, and leak-proof requirements.



Sludge Drying System



Before

The number of sludge treatment facilities in Taiwan is decreasing, and the cost is high. To reduce amount of sludge produced, Hsinpu Chemical Fiber Plant installed sludge-drying system in November 2015. The system dries up sludge for 12 hours, which lowers the water content from 85% to 25% and reduces weight by 77%, lowering carbon emission produced through the process of removal of sludge and cutting down on the cost.

In 2015, total amount of waste was 99,280 tons, which can be categorized into general business wastes and hazardous business wastes. General business wastes accounted for 95% of all wastes. General business wastes can be further categorized into manufacturing process wastes and domestic wastes; manufacturing process wastes accounted for 97%, a 38% increase from 2014. This was mainly due to the increase in fly ash and bottom ash after adopting CWM boilers. However, such wastes were recycled and reused, so we have maintained the recycling and reusing level of 90% and above. In 2015, hazardous wastes totaled at 5,408 tons, an 18.6% decrease from 2014. 73% of hazardous wastes could be recycled and reused. Oriental Petrochemical (Shanghai) improved water treatment sludge technology in 2015, effectively reducing the total amount of hazardous wastes.

3.5 Green Process

FENC strives to do its part for environmental sustainability, actively reducing amount of energy consumed in production processes. The Company has also set the long-term goal of zero production waste and responds to UN's SDGs with green process, turning polyester into a green industry, while we continue to promote energy conservation and environmental protection policies.

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Dope Dyeing Method

In general, fiber dyeing is carried out after fiber spinning and requires large amount of energy and water; furthermore, dyes and chemical solutions further impact the environmental, and treating wastewater needs additional costs. FENC uses dope dyeing method to replace traditional fiber dyeing, adding pigment to liquid fiber solution before spinning, which greatly reduces energy consumption, water withdrawal, chemicals and wastewater, and achieves greater color fastness. We use low-pollution production to produce dopedyed polyester fiber, and have won praises from clients. In 2015, FENC expanded the scope of environmental-friendly production process to include the production of Nylon 66.



Changing to Low Liquor Dyeing Machine

Traditional liquor dyeing machine and new liquor dyeing machine are different in terms of liquor ratio (liters of water required to dye a single kilogram of fabric). Traditional liquor dyeing machine consumes 12 liters of water to dye 1 kg of fabric, and during the dyeing process, it requires more dye, longer time, larger quantity of water and produces more wastewater. To protect the environment and preserve water resources, Kuanyin Dyeing and Finishing Plant began to incrementally replace old machines with new machines in 2015, reducing water withdrawal by about 30%; furthermore, steam and power consumption, and wastewater discharge have all been lowered. Currently, approximately 10% of the machines have been replaced.





FENC is the first company in Taiwan to recycle PET bottles, and its PET bottle reuse technology is industry-leading. In addition to making fibers, the Company also achieves food grade cleanliness.

PET bottle consists of three parts : body, cap, and label. We strived for recycling and reuse of PET bottle bodies in the past. To enhance recyclability of waste plastic materials, we also expand our scope of reutilization to include cap and blown shrink film.

We recycle disposed PET bottle caps and make them into pallets; disposed label are reused and made into imitation wood materials that have gardening applications such as fences or plank trail. This helps to reduce amount of wastes that need to be incinerated, as PET bottle recycling is now headed in the direction of zero waste. FENC is thus able to contribute to protect the environment, and at the same time, increase profit and enhance competitiveness.

🔘 Revolution in the Textile Industry: Waterless Dyeing and Finishing Technology

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Dyeing and finishing processes requires large volume of water, and wastewater from the processes contain all kinds of slurry, dyes, surfaceactive agent and aids added during the processes, requiring multiple procedures before being discharged. These have resulted in added costs and waste of energy. To lower the level of dependence on water resources and resolve the issue of wastewater discharge of dyeing and finishing processes, it is necessary to innovate the manufacturing process so that we can achieve corporate sustainability and environmental protection.

FENC cooperates with Nike and Dutch waterless dyeing developer DyeCoo to realize waterless dyeing using supercritical carbon dioxide, using the recyclable " carbon dioxide " to replace traditional " water " as the medium of dyeing. The process requires no water, avoiding the need to discharge water and add chemical aids, and lowering the consumption of petrochemical energy needed for heating water (oil, natural gas, coal, etc.). Today, with depleting water resources and instable supply, this is a revolutionary breakthrough.



Waterless dyeing and finishing technology features :

Turning carbon dioxide from gas into supercritical fluid close to liquid as dyeing medium; after dyeing, separate dyes and recycle carbon dioxide by decompression, achieving the effect of dyeing.

Utilizing carbon dioxide to dissolving dyes, no additional aids are required for dyeing polyester. No need to wash with water to achieve saturated and uniform dyeing effect.

Utilizing cycling design in sealed machine to overcome the technical bottleneck where it is difficult for high-pressure gas to circulate in the tank, realizing circulating dyeing by high-pressure gas.

Item	Traditional	Waterless Dyeing and Finishing
Water Withdrawal (per kg of fabric)	100-180L	No need for water
Energy Consumption (per kg of fabric)	Electricity: 1 kWh / Steam: 10kg	Electricity [:] 2.5 kWh / Steam [:] 4kg
Chemicals (dyeing aids) (per kg of fabric)	Aids [:] 0.2kg / Dyes [:] 0.07kg	No need for aids / Dyes ÷ 0.02kg
Daily Production (same dyeing tank)	1,200kg	1,500-1,700kg

Waterless dyeing and finishing is an innovative and pioneering technology and there remain aspects for breakthrough and optimization. FENC's waterless dyeing plant began trial operation in 2014 and under joint effort with partners. We will continue to innovate software, and renovate hardware. Currently, energy consumption of waterless dyeing process (electricity and steam) has been further lowered with efficiency being elevated from 65% to over 90% in 2015. Waterless dyeing facilities need smaller spaces compared to traditional dyeing; and with same number of dyeing tanks, waterless dyeing process' efficiency is 40% higher than traditional dyeing process. As the technology matures and replaces existing technology, it can save significant amount of clean water and energy for the world annually; industry can reduce required surface area for plants and enhance production efficiency. It is a revolutionary breakthrough.

3.6 Neighboring Community Communication and Response

Most of FEN's production sites are located in industrial parks. Only a handful of production sites are located in residential areas, such as Hsinpu Chemical Fiber Plant and Hukou Mill. We proactively communicate with neighboring citizens and invite them to visit our plants. In 2015, Hsinpu Chemical Fiber Plant invited town mayor of Xinpu, village chief of Wenshan, and community members to tour the plant's production and pollution prevention facilities. Wuhan Far Eastern New Material invited faculty members and students of Jianghan University to visit the factory; Oriental Petrochemical (Shanghai) organized the "Open House Day " event; Hukou Mill installed sound attenuators at ventilation outlets to reduce the impact on surrounding citizens of noises, which have lowered the noise level from 63.5 decibels to 55 decibels, achieving a reduction of 13.4%.

Furthermore, each production site has its own emergency response procedure and carries out regular drills to minimize the impact on surrounding communities during emergency events. Communities near production sites can submit appeals through official channels. Regarding the channels and mode of communication between production sites and citizens in nearby communities, please refer to the chapter (1) Establishing Strong Governance .

💽 , Oriental Petrochemical (Shanghai) Organizes " Open House Day "



In 2015, public attention focused on safety and environmental management of petrochemical industry. For people to understand more of its operation and enhance mutual trust, Oriental Petrochemical (Shanghai) organizes annual Open House Day, inviting citizens to come into the plant. The theme of the event in 2015 was " Walk into the Plant, Understand Oriental Petrochemical (Shanghai) "

This year's open house day not only invited citizen representatives from surrounding communities, university community, citizens on Haima Road, and complainants, Oriental Petrochemical (Shanghai) specially invited related government agencies, such as Environmental Protection Bureau, Safety Inspection Bureau, and Water Affairs Bureau, authorities of Spark Development Zone, and some representatives of other companies. Therefore, this year's participants came from diverse backgrounds. The event consisted of three parts : SHE annual report, onsite discussion and plant tour. Oriental Petrochemical (Shanghai) introduced to participants status on daily management, " three wastes " emissions, recycling of reclaimed water, boiler renovation, and reduction of emission of VOCs. Onsite discussion saw citizens and university student representatives raising questions, which were answered by managers and government officials. Through such interaction, the two sides further gained mutual understanding. Plant tour was led by managers, where participants were taken into the plant for in-depth observation and experience, allowing them to understand the real onsite situation in the plant. Destination and route were chosen by the participants, which revealed that Oriental Petrochemical (Shanghai) values and responds actively to issues concerned by stakeholders.

In the end, participants visited fire safety and emergency response equipment, and observed fire and rescue drill simulation where emergency rescue team saved people from a residential building. Through this event, Oriental Petrochemical (Shanghai) established a bridge of communication with the people, enhancing mutual trust and understanding. A citizen representative reflected : " After listening to your explanation, I believe Oriental Petrochemical (Shanghai) is a company that focuses on people and implements scientific management."