

Environmental and Social Report 2015

SHINKO ELECTRIC INDUSTRIES CO., LTD.



Editorial Policy

We publish an annual Environmental and Social Report to give our stakeholders an understanding of the Shinko Group's CSR initiatives, centered on environmental, social, and corporate governance efforts.

In addition to reporting on the year's initiatives, the Environmental and Social Report 2015 introduces in the Topics sections the efforts that we have taken in our business operations to protect the environment and coexist in harmony with the local community.

Reference Guidelines

- GRI, Sustainability Reporting Guidelines (Version 3.1)
- Ministry of the Environment, *Environmental Reporting Guidelines* (Fiscal Year 2012 version)
- Ministry of the Environment, *Environmental* Accounting Guidelines (Fiscal Year 2005 version)

Period Covered

FY2014 (focusing on initiatives from April 1, 2014 to March 31, 2015 and including some of our prior and most recent initiatives)

Date of Publication

September 2015 Next issue: September 2016 (previous issue: September 2014)

Scope of the Report

As a general rule, the report focuses on initiatives and data for the Shinko Group as a whole. The scope is narrowed to individual cases regarding matters for which group-wide data are not available.

Shinko Electric Industries Co., Ltd. is referred to as "Shinko." The overall group of companies including Shinko Electric Industries Co., Ltd. is referred to as the "Shinko Group," and the overall group of companies in Japan including Shinko Electric Industries Co., Ltd. is referred to as the "Shinko Group in Japan."

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Business Performance and Financial Information

Shinko publishes reports such as the Year-End Report, as well as a semiannual overview of business performance and our financial condition. These reports are made available on our website.

We are committed to disclosing operations and financial information in a timely and appropriate manner and to increasing management transparency, to give shareholders and investors an understanding of our efforts to boost corporate value and the results of these efforts.

Message from the President

The Shinko Group's mission is to provide the highest level of products and services in the world, based on the world's top-level manufacturing and technical capabilities. We aspire to contribute to the prosperity of people's lives and the sound development of society.

We are also committed to meeting the expectations of our stakeholders, including customers, suppliers, shareholders, community members, and employees, and to contributing to international and local communities through practice of the "Shinko Way," the Shinko Group's corporate philosophy.



The Shinko Way consists of a fundamental vision and a philosophy that have been

cultivated over many years since the Group's establishment, as well as important values, principles, and a code of conduct. By ensuring that all Group employees share the Shinko Way and act with a common purpose, we will seek to remain a widely trusted company that is needed by society.

The Shinko Group is making sustained efforts in a range of areas, including respect for human rights, compliance, and environmental protection, based on the Shinko Way. As one outcome of our efforts, this year we received special certification in recognition of our higher standard of childcare support initiatives as a company that meets criteria based on the Act on Advancement of Measures to Support Raising Next-Generation Children. In the years to come, we will strive to respect diversity, including gender, age, and nationality. Going further, we will actively promote diversity, as it makes possible the creation of dynamic organizations as well as new knowledge and technology through innovation, as part of our commitment to fulfilling our corporate social responsibility, with a view to the creation of a sustainable society.

We include environmental protection among our top management priorities as a manufacturer's social responsibility. We will take measures to practice environmentally friendly plant management and business operations and reduce the environmental impact. We will also continue to steadily carry out initiatives to address a range of issues throughout the supply chain.

Lastly, we will take part in the creation of a prosperous society, with each and every Group employee seeking to create new value, with high goals in mind.

I hope that this report gives you an understanding of the Shinko Group's initiatives, and we look forward to your continued support and encouragement.

Mitsuharu Shimizu President and Representative Director SHINKO ELECTRIC INDUSTRIES CO., LTD.

Corporate Outline

Corporate Name	SHINKO ELECTRIC INDUSTRIES CO., LTD.		
Head Office	80, Oshimada-machi, Nagano-shi, Nagano 381-2287, Japan		
President	Mitsuharu Shimizu		
Date of Establishment	September 12, 1946	Fiscal Year	Ending March 31
Major Business Lines	Lead Frame, Glass-to-Metal	Plastic Laminated Package (PL Seals, Electro Static Chuck, Sเ kage (MCP) and System Modu	urge Arrester,
Capital	24,223 million yen (as of Mar	ch 31, 2015)	
Employees	4,117 (consolidated: 4,905) (as of March 31, 2015)		
Plants and Offices	(Plants and Facilities) Kohoku Plant (Head Office), Wakaho Plant, Takaoka Plant, Arai Plant, Kyogase Plant, SHINKO R&D Center, Kurita Sogo Center, Aizu Branch (Sales Offices) Tokyo, Osaka, Sendai, Nagano, Nagoya, Oita, Fukuoka (Representative office) Manila		
Subsidiaries	Imanual [Domestic] SHINKO PARTS CO., LTD. SHINKO TECHNOSERVE CO., LTD. [Overseas] (Manufacturing) SHINKO ELECTRONICS (MALAYSIA) SDN. BHD. (Malaysia) KOREA SHINKO MICROELECTRONICS CO., LTD. (Korea) SHINKO ELECTRIC INDUSTRIES (WUXI) CO., LTD. (Korea) (Sales) SHINKO ELECTRIC AMERICA, INC. (U.S.A.) KOREA SHINKO TRADING CO., LTD. (Korea) TAIWAN SHINKO ELECTRONICS CO., LTD. (Taiwan) SHANGHAI SHINKO TRADING LTD. (China) SHINKO ELECTRONICS (SINGAPORE) PTE. LTD. (Singapore)		

Consolidated Financial Highlights



Recurring income/Net income









Overview of Products

Shinko was established in September 1946. We began by recycling lamps for home use, expanded into lamps for telephone switchboards, and then moved into the field of semiconductors, developing into a comprehensive manufacturer of semiconductor packages.

We draw on the vacuum technology, metallic material processing technology and glass sealing technology that we cultivated in the lamp business, as well as the improved versions of these technologies, in developing and manufacturing our diverse lineup of semiconductor packages.

PLASTIC LAMINATED PACKAGES

Our plastic laminated packages using organic resin materials were created to meet the need for high-speed and high-density packaging.

They are mainly used in microprocessing units (MPUs) in computers and servers as well as a range of microcomputers, memories, ASICs, and graphic accelerators.





LEAD FRAMES

Our lead frames are highly versatile IC packages made with thin metal sheets. They are used in a range of microcomputers, memories, and ASICs. Our lineup includes super fine-pitched lead frames suitable for microchips, quad flat non-leaded packages (QFNs) suitable for smaller and thinner devices, lead on chips (LOCs) for memories, and lead frames with heat slugs for power ICs requiring high heat dissipation.



COMPONENTS

Hermetic glass-to-metal seals with excellent electrical properties are used in semiconductor lasers and automotive sensors.

We also manufacture components such as ceramic electrostatic chucks for semiconductor manufacturing equipment and heat spreaders that efficiently disperse heat from IC chips.









ASSEMBLIES

We undertake contract processing of semiconductor devices that meet demands for high-performance, multi functionality, and miniaturization.

We offer flip-chip assemblies that are superior in terms of high-speed and miniaturization, IC assemblies with embedded active and passive components, as well as modules mounted with multi IC chips and passive components.





The Shinko Group's Business Fields

Interconnecting Our Future

Personal computers, mobile devices, digital appliances and so on. These electronic products are indispensable in contemporary society, and their rapid dissemination supports people's abundant lives worldwide. A range of functions and information are compacted into IC chips, which serve as the "brain" for these products. These chips work only when they are connected electrically to other devices, and semiconductor packages—our mainstay products—have an important role in maximizing the potential functionality.

As an integrated manufacturer of semiconductor packages, the Shinko Group responds to needs such as more compactness and higher functionality that are requested by semiconductor and electronics manufacturers to contribute to manufacturing products that make people's lives more abundant.



Based on a Variety of Leading-Edge Technologies

The Shinko Group has worked to always meet the demands of the mainstay semiconductor package market in a timely manner. At the same time, we have accumulated proprietary technologies and extended our product lineup to meet diversifying market needs. As a consequence, we now have a wide range of products for semiconductor packaging in composing core technologies.

Although many dedicated manufacturers specialize in specific product fields or technologies, we cover the entire semiconductor packaging area and are unparalleled in the world. This original corporate feature has become a real strength in exerting our competitive edge in the global market.



Development of Our Core Technologies

In View of the Global Market

The Shinko Group has established a global network with sales offices around the world to meet customized global needs. With a swift response to needs and careful support of customers at nearby sales locations, we focus on establishing speedy customer response systems for all stages from research, design and development to mass production and the provision of products, in close cooperation with our respective customers.

Moreover, we promote innovative production activities to ensure the stable provision of highly competitive products and improve the product quality and yield rate for production, as well as lead-time reduction, by fully taking advantage of original production process/equipment development technologies.

As a Good Corporate Citizen

The Shinko Group aims to be a good corporate citizen that pursues coexistence and co-prosperity with the Company's various stakeholders, including close coordination with local communities and employees, as well as the global environment.

To this end, to co-develop business activities and preserve the global environment, we promote activities for environmental load reduction such as energy conservation at plants and local exchange activities with neighboring residents. In addition, we focus on labor safety and health and are committed to establishing a comfortable worksite environment and improving the balance between work and life for employees.

Environmental Protection and Energy-Saving Initiatives (Environmentally Friendly Plant Construction and Operation)

Thus far, the Shinko Group has undertaken a range of energy-saving initiatives to reduce the environmental impact of its business operations, as part of the responsibility of a manufacturer. The energy-saving technologies we have

accumulated over many years are also proving effective in the construction and operation of new plants

Energy-Saving Initiatives

Manufacturing requires an enormous amount of energy.

Efforts to keep up with the increasing quality of products in recent years bring an increase in energy consumption, resulting in greater environmental impact and concern about the weight on business management.

At the Shinko Group, we are committed to combining the reduction of the environmental impact with sustainable corporate growth as part of our corporate social responsibility. As such, we constantly ask ourselves how we can manufacture products with as little energy as possible, taking energy-saving efforts as a key issue in line with our principle of pursuing harmony between the environment and corporate activities.

FY	Energy-saving initiatives, completion of new plants, etc. (FY2000-)
2000	Started operating a natural-gas cogeneration system (an in-house power generation system that also supplies heat)
2001	Wakaho Plant: Installed a solar power system (a 30-kW NEDO-subsidized project) Completed the switch to energy-efficient fluorescent tubes
2002	Stepped up the addition of inverters to production equipment
2003	Installed an absorption chiller using excess steam from cogeneration Kurita Sogo Center: Installed a solar power system (10 kW)
2004	Improved the cold water supply system (installed a variable flow system)
2005	Started converting boiler fuel to gas
2006	Started a rooftop greening experiment / Strengthened the promotion of energy saving at plants outside Japan Wakaho Plant: Completed construction of Facility D
2007	Started conversion to high-efficiency chillers / Converted to pull switches for lighting fixtures
2008	Wakaho Plant: Completed construction of Facility E
2009	Strengthened the system for energy visualization / Installed local air conditioning
2010	All plants: Completed conversion of boiler fuel to gas / Started installing chillers with inverters
2011	Took measures to comply with electricity usage restrictions / Recycled waste heat
2012	Takaoka Plant: Completed the first phase of construction on facilities J and K (strengthened conversion to an energy-saving plant) Stepped up efforts in a project to halve the use of resources and energy
2013	Started operating the Shinko Kyogase Mega-Solar system (installed and operated by Cenergy Co.) Adopted heat pump heating / Full-scale LED lighting
2014	Improved the efficiency of air conditioning Takaoka Plant: Completed the second phase of construction on facilities J and K

Examples of Energy-Saving Technology at the Takaoka Plant's New Facilities (J and K)

Full LED Lighting

LED lighting was installed at almost all areas in the plant. In addition to reducing electricity use, the switch to LED led into a lower air-conditioning load in cleanrooms, since LED lights generate less heat.



POINT

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Switch to Automatic Free Cooling

We use a chiller when the outside temperature is high and free cooling through outside air in the winter to make chilled water needed in production. Many man-hours were required to make this conversion, but the switch to an automatic system extended the period of free cooling from 3.5 months to five months.



Do Not Make Defective Products (Do Not Waste Energy) ⇒ Stable Utility Supply

Abnormal stops of production equipment, such as during an electrical brownout caused by lightning, affect product quality. We are working to ensure stable utility supply, just in case.



We installed a brownout compensator on the power source to minimize the risk to important equipment during a brownout. (3,000 KVA-1 sec guaranteed)

(Brownout compensator)



If a large compressor not connected to the brownout compensator suffers an abnormal stop, high-pressure air is supplied to production equipment from a large buffer tank. (High-pressure air buffer tank: 50 m³)

Examples of Energy-Saving Efforts at All Plants





Underground Water Heat / Natural Lighting

We use underground water heat, which has a stable temperature of about 15° Celsius, in air conditioning in the summer. We also reduce lighting energy use by bringing in outside light during the daytime.



Solar Power Generation

We have installed solar power generators, including a 30-kW system at the Wakaho Plant and a 10-kW system at the Kurita Sogo Center. We also support a 1,000-kW class power business through use of the Kyogase Plant's site.



Winter Air Chilling

We employ cold outside air in the winter to chill water that is used for cooling production equipment and as a heat source for air conditioning.



We have attached inverters to a number of motors to ensure waste-less manufacturing, which sends only the needed amount of electricity and voltage in line with changes in production volume.

Using Inverters



Reducing Standby Energy We reduce wasteful standby energy not used in manufacturing by stopping equipment not in operation (equipment on standby) as much as possible.



Improving Yield Defective products waste the value of inputted energy and resources. Improving product yield leads to the largest reduction in waste and energy savings.

Recycling



Improving Efficiency of Heat Sources We systematically upgrade large equipment that makes chilled water and steam, such as chillers and boilers, to

high-efficiency models, to steadily advance

Switch to LED Lighting We are switching our approximately 30,000 light fixtures to LED lighting. The longer life of LED lights also cuts the disposal of waste.



Changing fuel, even with the same machinery and output, can reduce CO₂. Since 2005, we switched our boiler fuel from heavy oil to gas.



energy savings.

Using Heat Pumps in Production

We use heat pumps to collect waste heat in air from inside plants and make heated water. This reduces CO_2 more than heating with steam.



Recycling Exhaust Air

Since air exhausted from cleanrooms is high-quality, low-humidity air that has been controlled for temperature and humidity, we remove impurities and heat then recycle it.



Air Conditioning with Waste Hot Water Heat from Production Equipment We use the heat of hot water discharged from production equipment at about 25° Celsius as a heating source for air conditioning in the winter.



Enlightening Activities Energy-saving is achieved through many small steps. Accordingly, we post reminders and enhance the daily awareness that leads to improvements.



We periodically conduct energy-saving patrols at plants by all relevant personnel, including officers. We make companywide, concerted efforts to save energy.



Manufacturing departments, equipment management departments, and utilities management departments promote energysaving projects. The departments cooperate to consider measures and manage progress.

Existing in Harmony with the Local Community: Kurita Sogo Center

The Kurita Sogo Center lies like an urban oasis at a location close to the east entrance of Nagano Station.

The center is a place that can present the Company's history to future generations, but it has also become a rich natural environment where community members and employees can relax. This feature introduces some of the changes to the site since its establishment and the rich natural environment it has cultivated.

History of the Kurita Sogo Center

The Kurita Sogo Center opened in September 2004 at the site of the former Kurita Plant, which used to be the Company's main factory and head office. The Kurita Plant was established as the Company's first full-scale manufacturing plant in December 1957, under a program first inviting the establishment of factories in the city of Nagano.

For nearly a half-century thereafter, the plant provided Japan and the world with a variety of products. Rice paddies surrounded the plant when it first opened, and the area was an idyllic setting with hardly any tall buildings. But subsequent development proceeded rapidly, and the area changed enormously as it took on its current appearance with rows of houses and other buildings. In light of such changes to the environment, the Company aimed to recover the verdant environment once dominated by rice paddies, with a view to existing in harmony with the local community. Accordingly, the Kurita Plant was transformed into a green space where one can feel the vibrant pulse of nature from season to season.

In the midst of a green space richly endowed with nature covering 3.5 acres we constructed the Mitsunobu Memorial Hall, which traces the footsteps of the Company's co-founder and former president Takekio Mitsunobu;

a museum that introduces the Company's history; and a multipurpose hall.

We will maintain this environment so that the Kurita Sogo Center can continue to be used by community members and others as a soothing place of relaxation.







28th Nagano City Good Landscape Award Winner (August 2015)

Place of Relaxation in the Community

The green space used by community residents as a place for walking and relaxation is one where you can continually observe a variety of trees, wild birds, insects, and other wildlife. Depending on the season, visitors can also see fireflies dancing and spot-billed ducks, which are a delight for employees and people from nearby.

Biodiversity Initiatives

As an urban natural environment, this is a precious place where woodlands, meadows, and waterfronts coexist on the premises. Since it is home to many wild birds and insects, it is a core area within the surrounding region, a breeding and living habitat. As such, surveys of flora and fauna species are used to enhance core areas and establish ecosystem networks.

Together with Community Members

The green space is also used in out-of-school classes by a nearby elementary school with the aim of communing with nature. In addition, since the center is located within a residential area, its broad green space functions as a temporary evacuation site for the neighboring community during disasters.

Birdfeeder and birdhouse







Our CSR Policy

Since its establishment, the Shinko Group has set the highest value on the practice of better manufacturing, with customers taken as the starting point of our ideas and actions; the development of human resources; the thorough practice of economizing; the pursuit of dreams; and community contribution.

In May 2010, we established the Shinko Way based on this philosophy, which has been put into practice over the years by our employees.

The Shinko Group's CSR embodies the practice of the Shinko Way. And it is through such practice of the Shinko Way, together with our consistent functioning as a corporate group, that we can mobilize the power of each employee and continuously expand our corporate value.

The Shinko Way

The Shinko Way embodies the philosophy of the Shinko Group, our reason for existence, values and the principles that we follow in our daily activities.

By practicing the Shinko Way, we strive to work in harmony with all stakeholders including customers, business partners, shareholders/investors, the local community and employees. Our aim is to enrich the lives of people all over the world and contribute to the development of society through manufacturing.

The Elements of the Shinko Way

The Shinko Way comprises four core elements:



Our CSR Policy

Fe		Corporate Vision				
Corporate Vision Founder's Philosophy		Technology Leadership	The Art of Manufacturing	Long Term Vision	Global Outlook	Responsibility to Individual
nte V Philo		Founder's Philoso	phy			
fisior sophy		Economizing	Innovation by manufacturing site	"Dreams in o a soroban ir		Responsibility to Individual
		What we strive for:				
		what we strive for:				
		Society and Environme	In all our actions	s, we protect the envi	ronment and contribute	e to society.
		Profit and Growth	We strive to me	et the expectations o	f customers, employee	s and shareholders.
0		Shareholders and Investo	We seek to conti	nuously increase our c	orporate value.	
orpo	Global Perspective We think and act from a global perspective.					
Corporate Values		What we value:				
Valu	Employees We respect diversity and support individual growth.					
ß		Customers	We seek to be t	We seek to be their valued and trusted partner.		
		Business Partners	We build mutua	We build mutually beneficial relationships.		
		Technology	We seek to crea	We seek to create new value through innovation.		
Quality We enhance the reputation of our customers and the reliabil			mers and the reliability of	social infrastructure.		

	Global Citizenship	We act as good global citizens, attuned to the needs of society and the environment.
-	Customer-Centric Perspective	We think from the customer's perspective and act with sincerity.
Principles	Firsthand Understanding	We act based on a firsthand understanding of the actual situation.
iple	Spirit of Challenge	We strive to achieve our highest goals.
0	Speed and Agility	We act flexibly and promptly to achieve our objectives.
	Teamwork	We share common objectives across organizations, work as a team and act as responsible members of the team.

Code of Conduct

- We respect human rights.
- We comply with all laws and regulations.
- We act with fairness in our business dealings.
- We protect and respect intellectual property.
- We maintain confidentiality.
- We do not use our position in our organization for personal gain.

Corporate Governance

Shinko has strengthened corporate governance and developed a risk management system so that we can be a company that earns even greater trust. We do this by continuously increasing corporate value within the incessantly changing environment of the semiconductor market.

Corporate Governance System

Shinko strives to enhance its corporate governance system, to ensure management transparency and facilitate appropriate and swift decision-making in response to change.

Specifically, we adopted a corporate officer system to build a flexible business operational structure based on a supervisory and audit system centered on administrative supervision by the Board of Directors and auditing by the auditors. In this way, we have further strengthened our corporate governance and boosted the efficiency of corporate management.

The Board of Directors decides basic policy, matters specified by laws and regulations, and the articles of incorporation as well as important management issues, and supervises the status of business execution. It meets once a month, and extraordinary meetings are convened when necessary.

A corporate officers' meeting, consisting of directors and corporate officers, is held monthly to deliberate and report on general management, including reporting the status of each division and group company.

Each auditor audits the execution of operations by the directors through attendance at board meetings, corporate officers' meetings, and other important meetings and through business reports received from directors and others.

We have chosen Ernst & Young ShinNihon LLC as our accounting auditor and established the Audit Division as an internal auditing division. The Audit Division conducts internal audits to verify that specific operations are implemented appropriately and efficiently based on laws and regulations. Auditors, the accounting auditor, and the Audit Division strengthen management transparency and compliance by increasing the effectiveness of their monitoring function through coordination and cooperation with each other, including the sharing of information and opinions.

We are currently examining our organizational design, including a move to a company with audit and supervisory committee. Based on the results of our examination, we will work to strengthen our corporate governance system.

Corporate Governance Structure



Risk Management System

Identifying and responding appropriately to risks that could affect the Group is an important management issue. Accordingly, we conduct an investigation of potential risks once a year. The investigation is conducted to establish and revise proactive measures to prevent risks that could have serious consequences by identifying, analyzing, and assessing potential risks in each department and group company.

During the investigation, each department and risk management promotion department exchange information through interviews based on the investigation results. By verifying new risks in light of each department's situation and by horizontally deploying proactive measures, risk assessment is strengthened and revisions are made to boost effectiveness, all of which enhances the investigation content.

In addition, in September 2014 we established Risk Management Guidelines that provide specific behavioral standards for following risk management rules, in an effort to enhance our risk management system.

Compliance

To remain a company that is trusted by stakeholders and needed by society, it is more important than ever that directors, officers and employees (hereinafter referred to as "employees") comply completely with laws in their daily conduct and undertake fair and proper business operations with integrity. Accordingly, the Shinko Group practices thorough compliance based on the Code of Conduct of the Shinko Way.

Compliance Promotion System

Shinko has established the Shinko Way Promotion Committee and the Shinko Way Division to strengthen our corporate governance and compliance systems.

By operating this committee, the Shinko Way Division accelerates the dissemination and instilment of the Shinko Way, which lays out the principles of behavior for the Shinko Group's employees, and carries out initiatives to ensure that the Shinko Way is practiced throughout the Group.

Additionally, the Shinko Group has utilized the Global Business Standards (GBS). The GBS are compliance standards shared within the Fujitsu Group all over the world that give more concrete shape to the Code of Conduct of the Shinko Way, which stipulates what the employees should abide by in their daily behavior as a guide.

Spreading Knowledge and Practice of the Shinko Way

We have taken a number of measures to ensure that employees are aware of and can check the content of the Shinko Way. These measures have included distributing pamphlets of the Shinko Way to all employees, putting up posters inside company facilities, and producing a wallet-sized card containing the main points of the Shinko Way.

We have also developed an intranet environment so that employees can access documents related to the Shinko Way at any time.

Development of Detailed Regulations and Guidelines

In FY2014, we developed detailed regulations and guidelines that apply in Japan for especially important areas (compliance with antitrust/competition laws, giving gifts to and entertaining public officials, and coping with antisocial forces) in an effort to strengthen compliance.

Compliance Training

We systematically provide ongoing training to increase the awareness of compliance among each employee.

In FY2014, we provided e-learning and training through workplaces to all employees in Japan, to deepen understanding on the prevention of cartels, bid rigging, and bribery. This training had a completion rate of 100%. We also provided group training to managers and personnel in relevant departments.

At group companies and a representative office outside Japan, we offered e-learning on GBS and compliance in general and provided group training on compliance with competition laws and anti-bribery, in an effort to enhance compliance training.

In the years ahead, we will seek to ensure thorough compliance group-wide by developing compliance programs, including the provision of training.



Group training at a subsidiary outside Japan

Corporate Ethics Helpline

We have established a Corporate Ethics Helpline so that employees can feel secure about requesting consultation when they are unsure about a decision in the course of work in light of laws, regulations, company rules, or corporate ethics.

At locations outside Japan as well, we have prepared consultation contacts, put up posters, and taken other measures to keep all employees informed about corporate ethics.

Social Report

Relationship with Customers

The Shinko Group has focused on developing and manufacturing superior products that meet customers' expectations, aiming to be No. 1 in *monozukuri* (manufacturing) in the industry and to offer the best quality in the world. We always make customers the starting point of our ideas and actions, aiming to be a trusted business partner of our customers around the world by contributing to their success and growing together with them.

Aiming to Be Our Customers' Best Partner

Customer and market needs change rapidly. To accurately grasp these changes and to anticipate them, the Shinko Group believes that it is important to approach our manufacturing from the customer's point of view.

Our sales department, which is the point of contact for our customers, continually maintains close communication with them. In addition, we visit customers with our engineers and actively make technical proposals, working with customers to develop safe, high-quality products.

We exhibit at trade shows both in and outside Japan to clearly explain our new products and new technologies and to directly receive customer feedback. We then reflect this feedback in our future product and technology development and sales activities.



Exhibition of our new products and technologies to meet customer needs

Status of Quality-Related ISO/TS Certifications

Supporting Customer and Societal Trust with Quality

We aim to contribute to the development of society and people's rich lives through manufacturing. Toward this end, we focus on providing products that satisfy customers and earn their trust.

Based on our Quality Policy, all employees continually pursue the quality and service sought by our customers, keeping in mind our commitment to these customers' success, which demands that we give top priority to the incorporation of quality.

Quality Policy

Commit to the success of the customer by providing the world's best products and services.

Guiding Principles

We make quality the top priority for Shinko products by building robust and rugged processes.

To improve quality and service, we establish goals and seek to meet them through continuous enhancement and change.

With unwavering quality and safety, we will meet our customers' expectations and trust.

From early on, the Shinko Group has worked to establish a quality management system and strives to increase customer satisfaction.

ISO 9001

Company	Product	Date certified
	Lead frame products	Dec. 28, 1994
	Glass-to-metal seals, Electrostatic chucks, etc.	Jun. 16, 1995
SHINKO ELECTRIC INDUSTRIES CO., LTD.	Assembly products	Mar. 8, 1996
	PLP products	Jan. 10, 2003
SHINKO ELECTRONICS (MALAYSIA) SDN. BHD.	Lead frame products	Dec. 29, 2003
SHINKO ELECTRIC INDUSTRIES (WUXI) CO., LTD.	Lead frame products	Oct. 5, 2008
KOREA SHINKO MICROELECTRONICS CO., LTD.	Glass-to-metal seals, Ceramic surge arrester	Jun. 5, 1997
ISO/TS 16949		
Company	Dreduct unit	Data cartified

Company	Product unit	Date certified
	Lead frame products	Oct. 21, 2012
SHINKO ELECTRIC INDUSTRIES CO., LTD.	Assembly products	Jul. 16, 2015
SHINKO ELECTRONICS (MALAYSIA) SDN. BHD.	Lead frame products	Dec. 12, 2014

Relationship with Suppliers

The Shinko Group sees our suppliers as invaluable contributors, enabling us to add value to the products we provide to our customers. We seek to build close relationships with our suppliers, working to create long-term mutual benefit and learning from each other. As good business partners, we wish to enhance each other's capabilities, aiming at the common goals of sustained growth and prosperity.

Shinko Procurement Policy

Shinko Procurement Policy

Shinko procures needed goods, components, software, and services based on the Shinko Procurement Policy that we established to carry out business operations while taking into consideration such matters as protection of the global environment, compliance, respect for human rights, labor, health and safety, ensuring the safety and quality of products and services, maintenance and promotion of information security, fair trade, and corporate ethics.

Shinko Procurement Policy

1. Coexistence with suppliers

We strive to establish a relationship of coexistence in which Shinko and our suppliers, as good business partners, build a long-term trustful relationship and close cooperation based on continuous efforts and improvements on both sides and thereby prosper together.

2. Fair trade (fair, transparent, proper evaluation and selection)

We promote fair, transparent and free competition and do not engage in any illicit trade.

We provide open and fair access to companies that wish to become new suppliers.

We evaluate and select suppliers comprehensively based on such criteria as credibility as an enterprise; technology; quality, price and delivery of procurement items; and the level of engagement with environmental protection initiatives.

3. Compliance with laws and social norms We adhere to applicable laws and social norms in our procurement operations and are committed to working with suppliers to fulfill our social responsibility in the supply chain.

4. Protection of the global environment We promote green procurement throughout the entire supply chain by requesting suppliers to establish environmental management systems and control of chemical substances.

CSR-Conscious Procurement Activities

Procurement Guidelines

In line with growing recognition of the importance of corporate social responsibility, Shinko drew up the Procurement Guidelines based on the Shinko Way and our Procurement Policy, to promote corporate social responsibility in our own business operations as well as throughout the supply chain. We follow these guidelines ourselves and ask suppliers to follow them as well, to promote procurement in line with societal demand.

In addition, we comply with the EICC Code of Conduct and promote understanding, compliance with, and spread of the EICC Code of Conduct among suppliers.

Procurement Guidelines (Excerpt)

- 1. Protection of the global environment
- 2. Compliance
- 3. Respect for human rights, labor, health and safety
- 4. Assurance of safety and quality of products and services
- 5. Maintenance and promotion of information security
- 6. Fair trade and corporate ethics
 - (1) Fair trade
 - (2) Protection of confidential information
 - (3) Protection of intellectual property
 - (4) Prohibition of bribes

Sharing Our Procurement Guidelines

To disseminate our Procurement Guidelines throughout the supply chain, Shinko uses our procurement website to highlight matters that we would like suppliers to pay attention to. We have asked suppliers, including those outside Japan, to commit in writing to follow the Procurement Guidelines. (The procurement website currently is available only in Japanese.)

Dialogue with Suppliers

Shinko has sent questionnaire surveys about corporate social responsibility to our main suppliers every year. The questionnaire asks about each supplier's compliance with the EICC Code of Conduct and their operation of management systems in the areas of labor, health and safety, the environment, and ethics. In FY2014, we sent a questionnaire to suppliers, including those outside Japan. We are confirming on an ongoing basis the progress made by suppliers.

We have also sent questionnaire surveys about corporate social responsibility to all suppliers to whom we contract some processes within our plants every year. In addition, we have conducted on-site inspections of work sites (twice a year) based on the surveys. We confirmed no legal issues during the on-site inspections in FY2014 as well.

Going forward, we will continue striving to promote social responsibility throughout the supply chain through various dialogues with suppliers, including monitoring based on questionnaire surveys and interviews.

Addressing Conflict Minerals

Actions for the Issue of Conflict Minerals and Ensuring Transparency

Shinko strives to avoid procurement of minerals produced in the Democratic Republic of Congo and adjoining countries that are closely connected to human rights infringements and labor problems and that could become a source of funds for armed groups. These minerals are tantalum, tin, gold, and tungsten.

Specifically, we take initiatives every year to avoid the risk of procuring conflict minerals by identifying applicable suppliers and purchases, investigating and verifying procurement routes for the applicable minerals all the way back upstream through the use of designated survey forms, and the confirmation and assessment of risk.

Through this survey, we request the applicable suppliers to ensure the transparency of procurement routes for the applicable minerals and also to procure metals and minerals from smelters certified by a third party (e.g., an auditing company) as conflict-free smelters (CFSs) going all the way back up the supply chain, in order to avoid procuring minerals that could become a source of funds for armed groups.

Business Continuity Management

Addressing Business Continuity Management

The strengthening of business continuity management throughout the supply chain is essential to maintain a stable supply of products and services needed by customers even during contingencies such as large-scale disasters.

Shinko has sent questionnaire surveys about business continuity management to our main suppliers of raw materials and components.

The survey confirms each supplier's problems with manufacturing sites and access to raw materials in the event of a contingency as well as their establishment of backup systems. We then ask suppliers to cooperate in strengthening their business continuity management by enhancing their business continuity plans (BCPs) and decentralizing sites. In addition, we make sure to maintain several suppliers for primary raw materials and components to reduce procurement risks.

Compliance

Training Procurement Personnel for Awareness

Shinko provides education and training opportunities for personnel in the Procurement Division to ensure that they understand well the Shinko Way, the Shinko Procurement Policy, the Procurement Guidelines, the Subcontract Act, and other laws relevant to procurement such as the Worker Dispatching Act. Through these efforts, we strive to increase awareness of compliance.

Compliance Hotline

Shinko has established a Supplier Compliance Hotline for whistle blowing in the event our employee has committed, or is suspected of having committed, an act in procurement operations that violates compliance.

In addition, we prohibit unfair treatment of the whistle blower and the supplier for their actions.

Relationship with Employees

Employees are the Shinko Group's most valuable asset. We respect diversity of our employees and aim to create workplaces where every employee can work energetically. We will also promote business through management plans based on a people-friendly approach and are committed to being an organization wherein all employees are strongly motivated, have ample opportunities for advancement and work with pride and confidence.



Efforts Promoting Respect for Human Rights

The first item in the Code of Conduct within the Shinko Way, which expresses the values common across the Shinko Group, is "We respect human rights." This is an explicit statement of our corporate stance of acting on the basis of a spirit of respect for human rights in all business operations. We strive to ensure that all Group employees show this spirit in their actions.

We uniformly use Global Business Standards (GBS) as guidelines for the Code of Conduct in terms of employee actions, and we share the concept of respect for human rights throughout the Shinko Group worldwide.

The Shinko Group has stipulated policies for human rights in employment. We continue to work for equal employment opportunities, respect for human rights, elimination of discrimination, and the prohibition of forced labor and child labor.

SHINKO Guiding Principles of Respect for Human Rights in Employment

With a view to realizing our growth and profits, respect for human rights must be an integral part of our business culture. SHINKO is committed to creating a culture in which employees respect the dignity and worth of individuals.

To this end, SHINKO will strive to foster respect for human rights in all the countries and regions where we operate our business while providing an environment that encourages employees to understand and realize importance of human rights.

1. Equal Employment Opportunity and Respect for Human Rights

SHINKO strives to provide equal employment opportunities.

SHINKO is committed to treat our employees with no illegal discrimination based on race, color, religion, creed, sex, social status, lineage, physical or mental disability, sexual orientation and any other legally protected category that is unrelated to the legitimate interests of SHINKO.

2. Compliance with Employment Laws and Regulations SHINKO adheres to the applicable laws and

regulations of the countries and regions in which it operates in treating our employees.

- Prohibition of Forced Labor/Child Labor SHINKO will not use any form of forced or compulsory labor. SHINKO will not use child labor.
- Work Environment SHINKO strives to achieve and maintain a healthy and safe work environment that motivates its employees.

Social Report

Promoting Human Rights Education

Shinko promotes awareness of human rights throughout the year by providing rank-specific training on human rights and through active participation in human rights training sessions held by local governments. In FY2014, we provided workplace management training to all managers and all section leaders at manufacturing worksites, with the aim of creating workplaces where people respect each other's human rights.

Furthermore, we provided e-learning and training in the workplace to all employees. All of the approximately 4,300 employees of the Shinko Group in Japan received the training, for a completion rate of 100%. In rank-specific training, we try to raise awareness of respect for human rights, mainly through discussions, and create environments where all employees think about and talk with each other about human rights.

We also provide training about the protection of personal information and privacy as well as fair recruitment to managers and staff members involved in human resources management and recruitment, and encourage care to avoid violating human rights.

Human Rights Consultation Services

Shinko has established an internal Corporate Ethics Helpline for employees to consult about actual or suspected transgressions of human rights or corporate ethics, or when they face difficulty in making a judgment.

In particular, we have established human rights consultation services in each plant for consultation about human rights, such as sexual harassment. We have developed a system for quickly gathering information and responding appropriately in the case of a situation involving abuse of human rights.

Additionally, we operate internal whistle-blowing helplines at all sites outside Japan. We distribute cards and put up posters with information on how to use the helplines to ensure that all employees working in the Shinko Group outside Japan can use them.

Going forward, we will continue to create systems and provide guidelines to enable smooth communication in the workplace and encourage the use of human rights consultation services, in order to discover and address problems early.

Creating a Dynamic Corporate Culture

By combining the talents of employees, each with their own unique qualities and way of thinking, our corporate value increases. We, therefore, respect the diversity of our employees and strive to create workplaces that are pleasant for all, to improve each employee's well being by working.

Embracing Diversity and Inclusion

Shinko seeks forms of diversity including those expressed by the following: "Employees with different personalities and values all should respect each other's diversity and draw on their individuality to maximize their abilities," and "All the different organizations and project teams should continue to spark innovation and create new knowledge and technology through uninhibited discussion from diverse points of view."

We aim to create workplaces that accept differences, including gender, age, disabilities, nationality, and values, where every employee can work together energetically.

Employment Rate of Persons with Disabilities (Shinko Group in Japan)



Balance between Employees' Personal and Professional Lives

We have long promoted respect of diversity, based on our Corporate Values, "Employees: We respect diversity and support individual growth." We have also worked continuously to support a work-life balance. We were twice certified, in 2007 and 2013, by the Nagano Labor Bureau as a general business that conforms to standards based on the Act on Advancement of Measures to

Support Raising Next-Generation Children, and we have received the Next-Generation Approval Mark.

In July 2015, we received special certification in recognition of our higher standard of initiatives.

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What is more, our return-to-work rate after childcare leave and our retention rate (the rate of employees still at the company 12 months after returning to work) are both 100%.

Our Initiatives

- 1. A longer childcare leave period than legally mandated
- A system allowing childcare leave to be paid if it lasts no longer than one month
- A wider scope of employees eligible for the childcare reduced working hours system and an exemption from overtime system than legally mandated
- Development of systems to encourage use of internal systems that support childcare
- 5. Childcare support based on allowance system
- 6. Developing a working environment with work-life balance consciousness

Numbers of Employees Using the Care Leave Support System (FY2014[Shinko])

System	Users*
Childcare leave	36
Reduced working hours (childcare)	135
Reduced working hours (family care)	1
Paternity leave	30

*Number of users: Including those using a program from the previous fiscal year.

Additionally, gradually we have expanded the scope of use of multipurpose leave (accumulated leave), which we introduced in 1992 separately from annual paid leave. In 2014, we expanded the purposes of use of this leave to provide nursing of a child or care for family members, in an effort to create an environment where it is even easier to achieve a work-life balance. These kinds of initiatives have resulted in women having a longer average number of service years than men at Shinko. This average is at a high level even on a nationwide basis.

Going forward, we will continue to enhance systems and foster a corporate culture that enables employees with certain conditions such as childcare or family care to play an active role, no matter which life stage they are at.

Average Age / Years of Service (FY2014 [Shinko])

	Average age	Average years of service
Male employees	43.8	21.3
Female employees	44.0	23.6
Total	43.8	21.8

Initiatives to Reduce Long Work Hours

Excessive long work hours are a risk that could cause employee health problems. We have strengthened our efforts to eliminate constant, long work hours, to protect the mental and physical health of employees. These efforts include designating every Wednesday as well as the second and fourth Fridays of the month as no-overtime days and thoroughly managing limits on overtime work.

Labor Relations

All ordinary employees of Shinko join the Shinko Labor Union. Based on labor-management agreements with the labor union, labor and management representatives hold the Labor Council on a periodic basis (or whenever needed) to explain management policies and business conditions and hold discussions about various employment conditions. We have also established the collective bargaining rights of the union and work with the union to resolve various issues.

In one initiative, a labor-management exploratory committee has held regular meetings about issues such as working hours and the taking of leave. While sharing information, labor and management have worked together to shorten overtime, encourage the taking of leave and improve other conditions.

We will continue working together to create pleasant workplaces based on healthy labormanagement relations, with the aim of "progress without limits."

Social Report

Creating Safe and Comfortable Working Environments



In line with the Corporate Values of the Shinko Way, Shinko provides environments where employees can work safely and comfortably, and strives to

ensure employee safety.

Toward this end, we have adopted a management system approach to pursue continual improvements of the level of health-safety and the disaster prevention. As part of this, all employees participate actively in health, safety, and disaster prevention initiatives.

Shinko Electric Industries Co., Ltd. Company-Wide Basic Policy on Safety and Health Plus Fire and Disaster Prevention

Ensuring employee safety and health is a top-priority issue for us, and we put the protection of safety as well as mental and physical health first in all our business operations. In accordance with the following policy, we will make concerted, company-wide efforts to participate actively in safety and health initiatives as well as fire and disaster prevention initiatives, to create accident-free, safe, and comfortable working environments.

- We will promote safety and health initiatives as well as fire and disaster prevention initiatives in accordance with laws, regulations, and requirements related to safety and health as well as fire and disaster prevention.
- 2. To create workplaces with a high sensitivity to safety, we will raise the safety awareness of each and every employee and also push and strengthen our 5S program of workplace optimization (sort, set in order, shine, standardize, and sustain), which is the foundation of safety and health.
- 3. We will aim to enhance intrinsic safety and prevent accidents by identifying and assessing dangers and causes of harm and taking systematic measures to reduce risk.
- 4. We will strive to create comfortable working environments and maintain and promote health, to relieve employees' fatigue and stress and prevent lifestyle-related diseases.
- We will ensure safety by establishing a system for responding to emergencies and continuously providing necessary and sufficient education and training to employees.

Safety and Health System, and Fire and Disaster Prevention Promotion System (Shinko)



Autonomous Safety Initiatives in the Manufacturing Workplace

Based on our safety and health system and fire and disaster prevention management system, Shinko has established goals for the entire company and each plant, and we are working to create safe, secure, and comfortable working environments.

In particular, in addition to safety patrols conducted at each manufacturing site, workers use risk identification sheets to document risks, reveal and assess potential risks, and carry out efforts to rectify dangerous points.



Risk identification sheet used to document risks in the manufacturing workplace

Initiatives to Raise Employee Awareness of Safety and Health

In addition to providing everyday safety guidance in the manufacturing workplace, Shinko conducts safety and health training for all employees once a year as well as periodic emergency drills, based on a yearly plan.

In conjunction with nationwide activities such as the national Safety Week in July and Occupational Health Week in October, we encourage all employees to participate in initiatives such as the solicitation of safety and health slogans.

Striving to boost the safety and health awareness of all employees through such initiatives is leading to improvements in the frequency rate of industrial accidents.



Safety and health training in the manufacturing workplace



Hygiene Management, Health Management, and Health Promotion Initiatives

Shinko is committed to creating workplaces where employees can work safely and comfortably. Accordingly, in addition to regular monitoring of the work environment (noise, luminance, and heatstroke indicators), we have industrial doctors and nurses (public health nurses or registered nurses) perform the following actions.

- In addition to statutory general and special health examinations, we provide health examinations focused on lifestyle-related diseases according to age (with a 100% examination rate) in an effort to detect and treat diseases early. Industrial doctors and nurses provide health advice as needed to persons whose exam results indicate findings, to manage employee health.
- We issue a regular Health Room Newsletter based on analyses of health examination results and provide information related to health promotion to foster self-care awareness among each and every employee.
- We have established the Health Measurement Corner in rest areas that lends pedometers and tape measures. The Health Measurement Corner offers health measurement devices such as body composition analyzers, blood pressure gauges, and Smokerlyzers that employees are free to use.

Our employee cafeterias also offer low-salt, low-fat, healthy, balanced meals in an effort to help employees maintain and increase their health.



Health Measurement Corner



Healthy, balanced meal offered in an employee cafeteria

Social Report

Mental Health Care

Industrial doctors and nurses consult with employees about mental health care at the Health Room in each plant.

Shinko provides rank-specific mental health training to managers, mid-career employees, and new hires to raise awareness of mental health. To prevent mental diseases, we attempt to detect and deal with mental issues at an early stage through self-care and line care.

Developing and Utilizing Human Resources

Shinko supports employees so that they can enhance their abilities and expertise through work and achieve personal growth.

Accordingly, we have adopted personnel systems based on a fair and open compensation structure for job responsibilities, with each person's responsibilities and their weight clearly defined, regardless of academic background, age, or years of service. Moreover, we actively promote the development and utilization of valuable human resources by improving training programs and various measures, to maximize the abilities of each and every employee.

Personnel Systems Based on Fair Evaluation and Fair Pay

We believe that true fairness means appropriately evaluating and rewarding outcomes when an employee maximizes his or her abilities, embraces the challenge of pursuing goals, and contributes to our objectives and performance. Shinko enforces the personnel system of basing treatment of employees on job responsibilities and the outcomes of work, not on personal factors such as continued service and academic background.

In addition, we encourage the pursuit of more challenging goals through management-by-objectives programs. We regard these as opportunities for the development of subordinates through communication between subordinates and their supervisors.

Supporting Abilities Development

Shinko uses on-the-job training (OJT) in the workplace as the basis of human resources development and supplements it with general training and specialized training.

General Training

This includes rank-specific training (new employees, mid-career employees, managers), training delivered at outside educational institutions, etc., internationalization training (English conversation classes, dispatching at outside classes, etc.), and promotion of self-development, etc.

Specialized Training

This includes group training to acquire specialized knowledge and skills needed in specific departments and jobs, OJT, statistics and quality systems training, and environmental education, etc.

Supporting the Active Participation of Older Workers

In 1992, ahead of relevant legislation, Shinko introduced a post-retirement rehiring system, to make use of the knowledge, techniques, and skills cultivated by employees over many years. Since April 2006, when the Act on Stabilization of Employment of Elderly Persons was amended, we have expanded the original system to provide opportunities for active participation to retirees who wish to continue working after reaching the mandatory retirement age of 60 and who have a great drive to exercise their abilities. Thus far, a total of 158 employees have made use of this system.

Supporting the Learning of English

Shinko supports the learning of English by employees, to develop human resources who can take charge of global business. In addition to subsidizing the fees for correspondence training courses, we provide in-house business English conversation classes and in FY2014 we expanded an English business skills class. We will continue enhancing our programs to strengthen employees' global business skills.



In-house English conversation class



A Japanese staff member gives donated money to a flooding victim.

Internal Donations to Employees Afflicted by Flooding in Malaysia

SHINKO ELECTRONICS (MALAYSIA) SDN. BHD. collected donations in the company for employees afflicted by flooding caused by torrential rains that fell in Malaysia in December 2014. The donations collected throughout the company were given to 22 victims of the flooding.

Relationship with Communities

The Shinko Group takes a leading role in sustaining the well-being of society through our business activities.

We have developed deep roots in communities and engage in social activities in harmony with these local communities.

Participating in Local Events and Volunteering

Participating in Local Events

Each August, employees participate in the Nagano Binzuru Festival held in Nagano City. In 2014, 56 employees participated as dancers, interacting with local residents.

In addition, each plant sponsors and cooperates with local events held throughout the year.



Dancing at the Nagano Binzuru Festival

Volunteering

In FY2014, employees volunteered in such activities as Myoko City Clean Partners (community beautification) and coastal cleanups along the Sea of Japan.

Additionally, Shinko has an accumulated paid leave program that allows employees to accumulate and take up to 20 days of paid leave for specific purposes, including volunteering at public organizations.



Myoko City Clean Partners

Relationships with Community Members

Promoting Traffic Safety around Plants

During the nationwide traffic safety campaign period, all of our plants post personnel along the streets to engage in traffic safety activities.

In addition, Shinko has implemented safety measures, including traffic restrictions on roads, to ensure the safety of community residents who drive and walk nearby our plants.

Plant Tour for Community Members

Shinko held a tour at the Wakaho Plant to explain to community members our business and initiatives to reduce the environmental impact and to give them a chance to actually see inside the plants.

These were opportunities for important communication leading to a better understanding of Shinko.



Plant tour of the Wakaho Plant for community members

Communication with Community Members

Shinko tries to take the lives of community members into consideration in our business operations. Accordingly, we investigate feedback and requests from the community and strive to promptly take responsive measures. In the years ahead, we will continue to aim for coexistence in harmony with local society as a community-based company.

Initiatives to Protect the Local Environment

Beautification Efforts around Plants

Each year, Shinko picks up trash and cut grass and dead branches along embankments and rivers around all of our plants, mainly during June, which is Environment Month.

In FY2014, a total of 256 employees participated in such beautification efforts.

KOREA SHINKO MICROELECTRONICS CO., LTD. (KSM) also conducts annual cleanups along the roads and river near its plant.



Cleanup activities by KSM

Participating in an Adopt-a-Forest Program

Shinko has participated in an adopt-a-forest program promoted by the government of Nagano Prefecture, engaging in environmental protection initiatives in cooperation with local residents in the Kinasa Matsubara area of Nagano City.

In June 2014, we maintained a buffer zone between the forest and the village and completed five years of efforts in the Kinasa area. The following October, we started new activities in Iizuna Town.

As our first action we put winter coverings on hydrangeas planted around Lake Reisenji.



Activities in Iizuna Town

Collecting and Donating Pre-Paid Cards

Shinko collects used pre-paid cards, stamps, and other items, which we donate to funds for tree planting.

From July 2005, when we started this effort, until the end of FY2014, we collected and donated items sufficient for about 840 saplings.

Supporting Youth Development

Supporting the Hokushin Scholarship Foundation

Shinko's co-founder and former president Takekio Mitsunobu donated the retirement money he received when he stepped down as a director, as well as company stock that he held, to establish the Hokushin Scholarship Foundation, a public interest incorporated foundation.

Based on former president Mitsunobu's belief that the establishment of a high-tech prefecture starts with human resources development, the foundation has thus far granted scholarships to a total of 407 engineering and medical students who are either from Nagano Prefecture or studying at a university in Nagano Prefecture (including exchange students).

Shinko helps run the foundation by serving as its secretariat.

Plant Tours and Internships

Shinko provides opportunities for learning to nearby schools through plant tours. In FY2014, the Kohoku Plant, Takaoka Plant, and Arai Plant gave tours to junior and senior high school students.



Plant tour for junior high school students at Kohoku Plant

We also provide internships in the hope that they will become an effective foothold for students who will lead the next generation to establish their outlook on work and discover their abilities.

In FY2014, students underwent practical training at the Kohoku Plant, SHINKO R&D Center, and Takaoka Plant.

Environmental Management

To contribute to the creation of a sustainable environment for future generations, the Shinko Group has made environmental protection a top management priority. With environmental goals set for all our business areas, we conduct our business activities in a well-planned and sustainable manner.

Environmental Policy

We have defined our responsibilities toward the global environment in an Environmental Policy, so that we can contribute to a healthy environment and rich society that will be handed down to future generations.

Environmental Policy We will make every effort to protect and improve the global environment through harmony between the environment and corporate activities. Guiding Principles 1. Endeavor to reduce the environmental impact incurred by our business activities throughout the product lifecycle. 2. Seek to reduce risk to human health and the environment. 3. Make every effort to protect the environment by observing environmental regulations and standards. 4. Strive for continuous improvement of our environmental management system. 5. Encourage our employees to work on global environmental conservation such as tackling climate change and preservation of biodiversity. We set up environmental objectives and a target to achieve them. These objectives are reviewed more than once a year.

Promotion System

The Shinko Group in Japan has acquired ISO 14001 certification through the Fujitsu Group's integrated certification. We have set targets for each manufacturing division and work to reduce the environmental impact as part of our regular business operations.



Maintenance and Improvement of Our Environmental Management

Environmental Education

To encourage each and every employee to always act with the environment in mind and to continue to act as a good corporate citizen, the Shinko Group in Japan provides general employee education every two years to all employees as well as education focusing on specialized technology and skills to environmental affairs personnel every year.

Moreover, in our environmental education for new hires we provide an original education program that includes issues such as the bounty of biodiversity and the relationship between corporate operations and biodiversity, in addition to the usual topics in the environmental field.

Raising of Environmental Awareness

Each month, our personnel involved in environmental affairs disseminate a variety of information to employees, from their different professional standpoints, on seasonal ecological topics such as the annual campaign to reduce the use of lighting and the Cool Biz and Warm Biz campaigns as well as specialized topics such as recovery of Freon, the dangers of familiar chemicals, and the laws and regulations of chemical substances, including the RoHS Directive, restricted for electric devices.

In addition, to avoid disseminating only general information on the Environment Department's website, we have created a page where employees can send in opinions and requests. The department replies to these as well as discloses the reply on the website in an effort to share information.

Compliance with Enactments and Revisions of Legislation

The Corporate Environmental Strategy Unit of Fujitsu centrally manages information on the enactment and revision of legislation related to the environment. It has created a system for quickly notifying Fujitsu Group companies of the information it obtains. The use of a catalogue of legal requirements and a compliance evaluation table in a format that is uniform across the Fujitsu Group eliminates disparities in the level of management within the Fujitsu Group and ensures compliance with applicable legal regulations. It has also led to a reduction in the man-hours for management within each company.

Compliance with Environmental Laws and Regulations

We comply with environment-related laws that are applicable to our company as well as pertinent industry guidelines and voluntary standards, in an effort to prevent environmental pollution.

We monitor regulatory matters based on environment-related laws through quarterly compliance checks and measurements. We promote appropriate responses to issues by checking the effectiveness of measures through the Fujitsu Group's internal environmental audits.

In FY2014, we experienced no serious regulatory violations or accidents with any serious consequences for the environment. Nor were there any requests or guidance from the government as a result of exceeding regulatory standards for exhaust gas, effluent, noise, vibration and others, nor any fines or lawsuits related to the environment.

Shinko Internal Environmental Audits

In FY2014, two findings for observation were pointed out based on the results of internal environmental audits conducted on 33 departments among 99 departments as a whole. Corrective actions and operational improvements were carried out for all of them.

Additionally, since we have divided departments subject to auditing into two groups and conduct internal audits so that each department is audited every other year, departments that will not be audited in a given year make autonomous efforts at improvement using a self-check method for identifying problems and points for improvement within their own department.

Two issues were identified during self-checks and reported by the lead auditor to the site general manager. Individual guidance was given to the department involved through the site manager, and the operational improvements were completed.

Fujitsu Group Internal Environmental Audits

In FY2014, the Fujitsu Group conducted internal environmental audits on our head office and all five plants, observing our environmental management system, compliance, plants, and 10 departments chosen as samples of departments.

The auditors identified three findings for observation. Corrective actions and operational improvements were carried out for all of them.

Management Review Results

A summary of actions taken in FY2014 following the FY2013 management review.

Comments during the FY2013 review	Actions taken in FY2014
 Real chances for generating creative ideas come from being on the factory floor. Actions closely tied to the manufacturing floor should be carried out increasingly for each environmental goal. 	On-site energy-saving review meetings were held regularly. Study meetings combined with on-site review meetings were held with the president, the applicable officers, and division personnel. Efforts are being made to step up energy saving initiatives. (Problem identification, solution consideration, and implementation checking) (FY2014: Five times [twice at Kohoku and once each at Wakaho, Takaoka, and Arai])
2. Steadily carry out actions following roadmaps toward the halving of energy use in 2020.	 Company-wide reduction efforts: Made greater efforts to hold regular meetings at each plant and business site. Chiller and air-conditioner efficiency improvement: Upgraded one chiller and 26 air-conditioners. Yield improvement: Converted division yield improvement effects into energy-saving. New technology, new processes: Held exhibition of energy-saving production technology in November.
3. Contribute to the community by participating actively in social contribution activities, including environmental protection efforts, as a good corporate citizen.	 Total time participating in social contribution activities: Aimed for a 10% increase in FY2014 compared to FY2013. Achieved 4,026 hours against a target of 2,852 hours. More individual social contribution activities than expected were reported.

Results of the FY2014 management review

(Comments from the environmental management supervisory manager)

- 1. FY2015 is the final year of the Environmental Protection Program (Stage 7). We will carry out company-wide actions to achieve each environmental goal and reduce the environmental impact.
- 2. We will carry out energy-saving activities, focused on halving energy use, and firmly establish these activities as ones that lead reliably to results.
- 3. We will contribute to the local community as a good corporate citizen by giving consideration to the local environment and participating actively in social contribution activities, including environmental protection activities.

The Environmental Protection Program (Stage 7)

The Environmental Protection Program (Stage 7) sets out environmental goals for FY2013 to FY2015. The Shinko Group in Japan established specific targets to achieve in a range of fields during these three years. Our principal new goals are enhancing social contribution activities and using water resources efficiently.

Item	Environmental Protection Program (Stage 7) target	FY2014 target (after review in January)	FY2014 results	Self- assessment*
ations	 [Reducing CO₂ emissions from energy consumption] Hold CO₂ emissions from energy consumption to within a 15.1% increase from the average for FY2007–FY2011 by the end of FY2015. (22.5% increase per unit of sales) 	Hold CO ₂ to within a 10.5% increase from the average for FY2007–FY2011. (Hold to within a 17.5% increase per unit of sales.)	Held to within a 9.0% increase from the average for FY2007–FY2011. (Held to within a 16.1% increase per unit of sales.)	0
Our Business Operations	[Reducing waste] • Reduce generation of waste by 20.7% from the average for FY2007–FY2011 by the end of FY2015. (15.4% improvement per unit of sales)	Reduce by 15.1% from the average for FY2007–FY2011. (9.4% improvement per unit of sales)	Reduced by 21.2% from the average for FY2007–FY2011. (16.2% improvement per unit of sales)	0
	 [Promoting green procurement] Promote CO₂ emissions reductions with suppliers. Expand CO₂ reduction initiatives to all types of suppliers. 	Increase the rate of procurement from suppliers that conduct CO ₂ control and reduction initiatives to 100% by the end of FY2014.	Procurement rate: 100%	0
Social Contribution Activities	 [Efforts as a good corporate citizen] Support increases in social contribution activities conducted by employees together with society. The numerical target shall be the total hours of participation in activities. Set the goal for FY2015 as 20% increase from FY2013. 	Increase the hours of participation by 10% compared to FY2013. (At least 2,852 hours)	Increased the hours of participation by 55.3% compared to FY2013. (Performed 4,026 hours)	0
nent	[Using water resources efficiently] Continue using water resources efficiently, such as by conservation and reuse of water. 	Continue efforts.	Continued efforts.	0
Operations Management	[Controlling chemical substances] • Hold emissions of PRTR substances and VOCs below the average for FY2009–FY2011.	Continue efforts and ascertain numbers.	Continued efforts and ascertained numbers.	0
Operatio	[Cooperating with society] • Support efforts to resolve social and environmental challenges such as biodiversity.	Continue efforts. Collect used stamps and prepaid cards and send them to a foundation. (They are used to fund seedlings for tree planting outside Japan.)	Continued efforts.	0

*Self-assessment: \bigcirc = Target achieved \times = Target not achieved

Matters subject to goals management under the Environmental Protection Program define the scope of environmental management systems (EMS) initiatives.

The targets in the Environmental Protection Program (Stage 7) were reconsidered and revised in April 2015 following a revision of our sales plan.

Environmental Report

Initiatives to Combat Global Warming

Achievements

CO₂ emissions of the Shinko Group in Japan in FY2014 totaled 136,929 tons, up 2.6% from FY2013 as well as up 12.2% per unit of sales. The increases were mainly attributable to the start-up of the Takaoka Plant's new facility as well as a rise in energy use due to growing complexity of manufacturing processes with the expanded use of high-density packaged products.

We took a number of measures to reduce emissions, boosting the productivity of manufacturing equipment through production innovation, reducing stand-by power consumption, and upgrading utility equipment, such as those supplying plants with chilled water and air-conditioning, to high-efficiency models. In terms of manufacturing equipment, right from the design stage we focused on how to conduct manufacturing with the least-possible energy and made substantial improvements, including setting up manufacturing equipment that can run on half the conventional amount of energy.



Energy-Saving Projects

We have launched energy-saving projects with the aim of halving energy use by 2020, and we continue to develop our activities. The manufacturing departments, equipment management departments, and utilities management departments cooperated across departmental boundaries, working together to achieve our targets. This included conducting energy-saving review meetings and patrols of

manufacturing floors with all relevant personnel, including officers, every three months.



An on-site review meeting

Controlling External Emissions of Chemicals

Achievements

With respect to chemical substances, the Environmental Protection Program (Stage 7) sets out the goal of holding external emissions (i.e., to air and water systems) of VOCs and PRTR-subject substances to within the average for FY2009 to FY2011.

To accurately ascertain inputs and outputs of the applicable substances, the Shinko Group in Japan established a system to count input amounts and ensure the analysis of concentrations for and management of all discharge systems.

Production volume recently increased compared to the base year, and use of chemicals containing VOCs and PRTR-subject substances has expanded with changes in product specifications and models, putting our chemical substance emissions on an upward trend.

Chemical Substance Emissions

	FY2009–FY2011 average (base year)	FY2014	Percentage change
VOCs	74.2tons	83.0 tons	Up 11.9%
PRTR	3.4tons	3.6 tons	Up 5.9%

Using Water Resources Efficiently

"Do not use water." "Clean contaminations efficiently using only a little water." "Recycle used water." These are the key concepts when considering how to use water resources efficiently.

Since water is used to eliminate contaminations from products, we have sought to adjust our cleaning methods, to reduce the use of water.

We will continue to seek ever more efficient ways of using water, from a variety of perspectives.

Recycling Rate for Water Resources



Reducing Waste

Achievements

In FY2014, the Shinko Group in Japan recorded an increase of 25% in gross output (the amount of waste plus valuables) compared to FY2007 to 2011. However, the amount of waste was reduced by 17% (610 tons).

Although our gross output expanded reflecting an increase in production, the amount of waste declined as we promoted the conversion of waste to valuables and expanded the in-house processing.

In addition, the percentage of valuables out of gross output was increased up to 83%. We will continue to promote the conversion to valuables, so that waste can be recycled as usable materials.



Amount of Waste and Amount per Unit of Sales



Topics

- We reduced waste liquid from flux cleaning by 150 tons per year compared to FY2013 through partial in-house processing. Since FY2013, we have continuously sought to expand the processes subject to in-house processing.
- We increased the list of valuables by strengthening waste separation. We created nine tons of valuables per year, including waste plastic, trays for products, and filters used in wet processes.
- We increased our equipment for in-house processing of alkaline waste liquid and revised the specification of flocculants, resulting in a reduction of 440 tons per year compared to FY2013.

Green Procurement

Achievements

Under the Environmental Protection Program (Stage 7) (FY2013–FY2015), the Shinko Group in Japan is expanding on the green procurement initiatives from the Stage 6 plan, placing priority on extending CO_2 emissions reduction efforts to suppliers in all areas. In FY2014, we achieved a 100% procurement rate from suppliers for two years in succession that implement efforts to control and reduce CO_2 .

Surveys of Suppliers' Initiatives

From the Stage 7 plan, we have been conducting environmental surveys of all types of suppliers, whether they supply components or not. This gives us an understanding of the status of initiatives on EMS establishment, biodiversity preservation, and conservation of water resources in addition to CO_2 reduction.

Promoting Reduction of CO₂ Emissions with Suppliers

Based on the results of above-stated surveys, we ask suppliers that are not working to cut CO₂ emissions yet to devise an initiative and conduct goal-based CO₂ reduction initiatives. We provide them with a checklist for reference in terms of initiatives to assist in the implementation of concrete measures.

Increasing the Level of EMS Initiatives

We ask main suppliers from whom we purchase materials to establish EMS above a certain level, so that they engage continuously in initiatives to reduce the environmental impact.

Managing Chemical Substances in Products

We ask suppliers to establish chemical substance management systems (CMSs), to ascertain the chemical substances contained in products and ensure compliance with laws and regulations. As a specific initiative, we periodically conduct CMS audits of raw material suppliers to strengthen the management of chemical substances contained in products in the supply chain. To date, no issue on the raw materials purchased has been found.

Environmental Risk, Safety, and Other Initiatives

Equipment Safety Measures

We have been putting priority on safety measures for equipment since FY2013. In FY2014, we focused on preventing dangers when working in high places. We implemented safety measures to prevent falls, including installing handrails on work platforms, installing fences around rooftops, and installing safety belt wires for horizontal mobility on roofs (Safe Slider).



Rooftop with a fence installed



Working on a roof while attached to the Safe Slider

Reducing Use of Ozone-Depleting Substances

Regulations aimed at the total abolition of specified CFCs have been established worldwide, because they are ozone-depleting substances. In 1991, we fully phased out the specified CFCs that we previously employed in product cleaning.

Additionally, we have been replacing old air conditioners, refrigerators, and other equipment that uses specified CFCs as a refrigerant with models that use alternative CFCs. When making replacements, we install high-efficiency models, which save energy.

Number of devices updated in FY2014: About 50 units

Alternative CFCs are not ozone-depleting substances, but since they are greenhouse gases, we are actively working switching to models that use non-CFC refrigerants.

Adoption of Electric Manifests

We have adopted electronic manifests at all of our plants to more reliably and safely manage industrial waste.

The purpose of the manifest system is to prevent illegal dumping and ensure the appropriate disposal of industrial waste by having waste generators monitor the disposal stream of industrial waste entrusted to collection and transporting companies and disposal contractors. In Japan, the law requires this system to be used when contracting the disposal of industrial waste.

Conventional paper manifests were very time-consuming to manage, including verification, since documents had to be sent back and forth among several relevant companies, including Shinko, according to the stage of disposal. The adoption of electronic manifests has greatly optimized the process, decreasing the man-hours for management and reducing incomplete forms and input mistakes. It even reduced the amount of paper used.

Manifest Process

- When contracting disposal
- When collection/ transporting is complete
- When intermediate
- processing is complete
- When final disposal is complete



Environmental Initiatives at Sites Outside Japan

KOREA SHINKO MICROELECTRONICS CO., LTD. (KSM)

KSM aggressively implemented measures to halve its energy use over a five-year period (FY2010 to FY2014).

In FY2014, the final year of the initiatives, the results were a 37% reduction against the goal of a 50% reduction. The rate of energy use per unit of sales was 6.6 tons CO_2 per 100 million won, against a final target of 5.3 tons CO_2 per 100 million won. (Electricity and LNG usage were calculated using the actual results for the meters used.)

Having set out the major goal of halving energy use, KSM had a difficult time identifying improvement themes along the way. Nevertheless, the persons involved carried on without delay, holding additional meetings to discuss improvements. As many as 242 improvements were made over the five years.



CO₂ Emissions (Intensity per Unit of Sales)

Main Priority Initiatives

- 1 Attaching inverters to utility equipment (e.g., air conditioners, air scrubbers, compressors)
- Improving methods of operating production machinery such as welding furnaces and plating equipment (e.g., making two levels inside welding furnaces instead of one)
- 3. Installing high-efficiency motors on utility equipment and production machinery
- Improving lighting (e.g., adopting LED lighting, thinning out lighting fixtures)
- Reducing LNG by attaching inverters to boilers and switching to low-NOx burners
- Revising and thoroughly managing room temperature settings (e.g., setting up temperature indicators, temperature monitoring) and implementing workplace communication and education Heating: 23° Celsius → 20° Celsius Cooling: 23° Celsius → 26° Celsius

Improving the methods of operating production machinery, in particular, could also affect product quality, and so a great deal of time was spent making these improvements while carefully conducting frequent tests and evaluations. The improvements shortened the production machinery operating time while increasing production output, and also led to reductions in product cost.

Going forward, KSM will carry out a second set of energy reduction initiatives to make further progress toward low-carbon operations.

SHINKO ELECTRIC INDUSTRIES (WUXI) CO., LTD. (SEW)

SEW started collecting food scraps as a new measure to reduce waste.

Food scraps are left over from lunch at SEW, but until recently they were thrown away, due to the small amount.

However, a farmer who would accept even small amounts of food scraps was found, and now the food scraps are partially separated, collected, dried, and used effectively as a feed for chickens.

This effort resulted in an annual reduction of non-industrial waste by 360 kg.



In China it is common to show hospitality by serving more food than can be eaten. Recently, however, given the mounting concern about the environment, including particle-laden smog known as PM2.5, signs have begun appearing in restaurants that

say, "No rice or other food leftovers." SEW's effort to collect food scraps has also led to increased employee awareness of environmental protection.



Sign at a restaurant

◆ SHINKO ELECTRONICS (MALAYSIA) SDN. BHD. (SEM) SEM is working hard to reuse packaging materials as part of its efforts to reduce waste and cut costs.

Use Rate of Reused Items in FY2014

Packaging material	Reuse rate
Tupperware	96.7%
Hard cases	51.1%
Spacers (inter-leaf papers)	45.2%

SEM uses a lot of spacers in particular, and so there is a need to expand their reuse.

Conventionally, spacers were packed into boxes without gaps, as shown in Figure 1, and cleaning with an air blower was very slow.

To improve this situation, employees on the production floor put their heads together and decided to fix spacers in the air while creating a suitable gap, as shown in Figure 2. The increase in workability improved the number of spacers handled each day by 1.5 times, leading to a higher reuse rate.

Figure 1 Spacer cleaning (before improvement)



Figure 2 Spacer cleaning (after improvement)



Spacers fixed from above and a gap made below



Spacer cleaning equipment after improvement

Environmental Accounting

The Shinko Group in Japan prepares our environmental accounting based on the Japanese Ministry of the Environment's Environmental Accounting Guidelines 2005 and the Fujitsu Group Environmental Accounting Guidelines (which includes estimated effects based on the Fujitsu Group's unique perspective).

FY2014 Results

(Millions of yen)

Category		Main scope	Investment (yoy change)	Costs (yoy change)	Economic effect (yoy change)
areas	Pollution prevention	Prevention of air and water pollution, etc.	211.1 (12%)	2,005.0 (122%)	3,011.7 (118%)
business a	Protection of the global environment	Energy conservation, prevention of global warming, etc.	3.1 (29%)	1,382.5 (113%)	167.4 (100%)
ind nl	Resources recycling	Waste processing, efficient utilization of resources, etc.	0 (-%)	301.2 (92%)	7,469.1 (96%)
Man	Management activity ISO 14001, environmental education, environmental protection, etc.		8.7 (63%)	260.3 (114%)	28.9 (289%)
R&D Research into environmental friendlin products, etc.		Research into environmental friendliness of products, etc.	0 (-%)	67.2 (343%)	846.5 (108%)
		Total	222.9 (13%)	4,016.2 (117%)	11,523.6 (102%)

FY2014 Environmental Impact

[INPUT]



INPUT	
Energy	Amount of energy such as electricity, heavy oil, and natural gas related to production operations
Natural energy	Amount of electricity generated from solar power
Water	Amount of new water input to plants, etc.
Raw materials	Amount of raw materials used in products
Chemical substances	Amount of PRTR-subject substances handled
OA paper	Amount of office paper used
Energy (distribution)	Amount of transportation energy used to deliver products to customers in Japan

OUTPUT	
CO ₂	Emissions of carbon dioxide associated with consumption of energy used at plants, etc. (computed based on the Fujitsu Group GHG Protocol) / Scope 1 is emission of CO ₂ from heavy oil, gas, diesel, and Scope 2 is from electricity
Greenhouse gases besides CO ₂	Greenhouse gases besides CO ₂ (CH4, CF4, and SF6) emitted from plants, etc., according to the Global Warming Potential (GWP) measure (Scope1)
NOx	Amount of NOx emitted from boilers at plants, etc.
SOx	Amount of SOx emitted from boilers at plants, etc.
Effluent	Amount of water discharged from plants, etc., to sewerage and rivers, etc.
BOD	Amount of BOD (biochemical oxygen demand; an indicator of organic pollution in rivers) discharged in effluent from plants, etc.
Chemical substances	Emissions of PRTR-subject substances
Discharge	Gross discharge of unneeded material from plants, etc.
Valuables	Amount of discharge sold as valuable resources
Effectively used waste	Amount of discharge sent for recycling
Processed waste	Amount of discharge discarded through simple incineration and burial (including waste not subject to zero emissions calculations)
Effective utilization rate	(Valuable + effectively used waste) / Discharge
CO ₂ (distribution)	Emissions of CO ₂ associated with consumption of transportation energy used to deliver products to customers in Japan

Environmental Data

Air Data for: Small through-flow boiler

	ltam	Unit	National	Company	Results			
	Item	Unit	standards	standards	Max.	Avg.		
	Particulate ^{*1}	g/Nm ³	(0.1)	0.02	<0.004	< 0.004		
	SOx	Nm ³ /h	4.41	-	0 *3	0 *3		
Γ	NOx ^{*1}	cm ³ /Nm ³	(150)	130	66	47		

Water quality Units: Hydrogen ion concentration (pH) and other (mg/l)

	· • · ·						
	Sewage	Company	Results				
Item	discharge standard	standards	Max.	Avg.			
pН	5.0-9.0	5.2-8.8	8.3	7.3			
BOD	600	540	220	159			
Suspended solids	600	300	27	12.9			
n-Hexane	5	4.5	<1	<1			
Copper	3	1	0.05	0.04			
Zinc	2	1	0.08	0.05			
Soluble iron	10	5	0.09	0.07			

Takaoka Plant

Air Data for: Small through-flow boiler in Building C

ltom	l lait	National	Company	Results	
Item	Unit	standards	standards	Max.	Avg.
Particulate ^{*1}	g/Nm ³	(0.1)	0.03	< 0.004	<0.004
SOx	Nm³/h	3.68	-	0 *3	0 *3
NOx ^{*1}	cm ³ /Nm ³	(150)	130	72	41.2

Data for: Small through-flow boiler in Building I

		National	Compony	Results	
Item	Unit	standards	Company standards	Max.	Avg.
Particulate ^{*1}	g/Nm ³	(0.3)	0.1	- ^{*2}	- ^{*2}
SOx	Nm ³ /h	1.45	-	- ^{*2}	-*2
NOx ^{*1}	cm ³ /Nm ³	(180)	170	- ^{*2}	_*2

Data for: Small through-flow boiler in Building K

Item	1.1 14	National	Company	Res	ults			
nem	Unit	standards	standards	Max.	Avg.			
Particulate ^{*1}	g/Nm ³	(0.1)	0.03	_*2	_*2			
SOx	Nm³/h	7.40	-	0 *3	0 *3			
NOx ^{*1}	cm ³ /Nm ³	(150)	130	_*2	_*2			
	4 I I	Weter werkten the test backer were test ender test (all) and						

□ Water quality Units: Hydrogen ion concentration (pH) and

other (mg/l)

		ouner (mg/	·)		
	Nagano		Company	Results	
ltem	prefectural	standards	Max.	Avg.	
рН	5.8-8.6	5.8-8.6	6.0-8.4	8.0	7.2
BOD	160	30	27	26.0	10.0
Suspended solids	200	50	25	23.0	10.0
n-Hexane	5	5	2	<1	<1
Copper	3	2	1	0.74	0.19
Zinc ^{*4}	5	3	1.5	0.09	0.03
Soluble iron	10	10	3	0.29	0.10
Soluble manganese	10	10	3	0.29	0.13
Chromium	2	1	0.5	< 0.02	< 0.02

*1 It is not applicable at the moment based on supplementary provisions in the enforcement regulations to the Air Pollution Control Act (Ordinance 31 of June 6, 1985).

*2 There are no results for FY2014, because measures are taken once every three years.

*3 There are no emissions, because it is a gas boiler.

*4 National and prefectural standards are provisional standards until December 10, 2016.

Wakaho Plant

Air Data for: Small through-flow boiler

Item	Unit	National	Company	Res	ults
nem	Unit	standards	standards	Max.	Avg.
Particulate ^{*1}	g/Nm ³	(0.1)	0.02	_*2	_*2
SOx	Nm³/h	5.5	-	0 *3	0 *3
NOx ^{*1}	cm ³ /Nm ³	(150)	135	85	35.5

□ Water quality Units: Hydrogen ion concentration (pH) and other (mg/l)

	Sewage	Company	Res	ults
Item	discharge standard	standards	Max.	Avg.
рН	5.0–9.0	5.2-8.8	7.9	7.7
BOD	600	540	360	251
Suspended solids	600	200	71	57.4
n-Hexane	5	4.5	<1	<1
Copper	3	2.7	0.79	0.55
Zinc	2	1	0.02	<0.02
Soluble iron	10	3	0.03	<0.02
Soluble manganese	10	4	0.63	0.27
Chromium	2	0.4	<0.02	<0.02

Arai Plant

Air Data for: Small through-flow boiler

ltom	Unit	National	Company	Re	sults
Item	Unit	standards	standards	Max.	Avg.
Particulate ^{*1}	g/Nm ³	(0.1)	0.02	_*2	_*2
SOx	Nm³/h	7.1	-	0 *3	0 *3
NOx ^{*1}	cm ³ /Nm ³	(150)	120	_*2	_*2

Water quality Units: Hydrogen ion concentration (pH) and other (mg/l)

	National	Niigata	Company	Re	sults		
Item	standards	prefectural standards	standards	Max.	Avg.		
рН	5.8-8.6	5.8-8.6	6.0-8.4	7.7	7.4		
BOD	160	25	23	7.1	2.8		
Suspended solids	200	50	32	8.0	4.6		
n-Hexane	5	5	4	<1	<1		
Copper	3	2	1	0.17	0.07		
Zinc ^{*4}	5	5	1	0.07	0.05		
Soluble iron	10	10	5	0.99	0.41		
Soluble manganese	10	10	3	0.88	0.34		
Chromium	2	2	0.5	<0.02	<0.02		

Kyogase Plant

Air Data for: Small through-flow boiler

ltom	Unit	National	Company	Re	sults
Item	Unit	standards	standards	Max.	Avg.
Particulate ^{*1}	g/Nm ³	(0.1)	0.03	- ^{*2}	- ^{*2}
SOx	Nm³/h	4.65	-	0 *3	0 *3
NOx ^{*1}	cm ³ /Nm ³	(150)	130	_*2	_*2

□ Water quality Units: Hydrogen ion concentration (pH) and other (mg/l)

other (mg/l)							
Item	National standards	Niigata prefectural standards	Company standards	Re Max.	sults Avg.		
рН	5.8-8.6	5.8-8.6	6.2–8.2	7.1	6.9		
BOD	160	160	80	10.0	5.7		
Suspended solids	200	200	65	3.0	2.0		
n-Hexane	5	5	2	<1	<1		
Copper	3	3	1	0.07	0.04		
Zinc ^{*4}	5	5	1	0.04	0.03		
Soluble iron	10	10	3	0.29	0.15		
Soluble manganese	10	10	3	0.38	0.10		
Chromium	2	2	0.5	< 0.02	< 0.02		

History of Environmental Initiatives

FY	Main initiatives	FY	Main initiatives
	Started a second-stage social contribution project in Iizuna town		Acquisition of ISO 14001 certification at KOREA SHINKO
-	(organized by the labor union)		MICROELECTRONICS CO., LTD.
	Adopted electronic manifests		Made the LD cap lead-free
2013	Formulated the Environmental Protection Program (Stage 7)		 The Kohoku Plant received the Governor's Award at the Nagano Prefecture
	 Started the second phase of construction on the environmentally friendly 		High-Pressure Gas Industry Convention
	new facility at the Takaoka Plant		Achieved 99% green procurement for components
	 Started operating a mega-solar system at the Kyogase Plant 		 Achieved zero emissions at all production plants in Japan
2012	Completed an environmentally friendly new facility at the Takaoka Plant	2002	 Acquisition of ISO 14001 certification at the Kohoku Plant, completing such
2012	Won a Fujitsu Group environmental contribution award		certification at all plants in Japan
2011	Revised the Environmental Policy		 The Kohoku Plant was certified as Gold by Nagano City's Eco Circle
2011	Won a Fujitsu Group environmental contribution award		 Established the Environmental Policy (the former Environmental Charter)
	 Started discharging plant effluent to sewerage at the Kohoku Plant 		 Achieved zero emissions at the Kyogase Plant
2010	Formulated the Environmental Protection Program (Stage 6)		 Achieved 100% green procurement for office supplies
2010	,	2001	Launched the Lead-Free Promotion Project and the Green Procurement
2009	Changed boiler fuel to gas at the Kohoku Plant	2001	Promotion Project within the Environmental Measures Committee
2009	Launched a project to halve resource and energy usage The Arai Plant received a Heart to Heart Award from Myoke City		Established SHINKO Eco 21
	The Arai Plant received a Heart-to-Heart Award from Myoko City		Achieved zero emissions at the Kohoku Plant
	Started a first-stage social contribution project in the Kinasa area		
2008	(organized by the labor union)		 Published the first Environmental Report Added a section on environmental initiatives to the Company's website
2008	Acquisition of ISO 14001 certification at SHINKO ELECTRIC INDUSTRIES	2000	
	(WUXI) CO., LTD.	2000	Acquisition of ISO 14001 certification at SHINKO ELECTRONICS (MALAYSTA) SDN_BHD
	Started full-scale implementation of measures for volatile organic		(MALAYSIA) SDN. BHD.
	compounds (VOCs)		The Takaoka Plant received an award from the Nagano Prefecture Industry Environmental Concernition Accessible and an event share of hydrogeneous
	Started discharging plant effluent to sewerage at the Wakaho Plant		Environmental Conservation Association as an excellent place of business
2007	Formulated the Environmental Protection Program (Stage 5)	1000	promoting the effective use of industrial waste
	Switched to a gas boiler at the Takaoka Plant	1999	Acquisition of ISO 14001 certification at the Wakaho Plant
	(changing fuel from heavy oil)		Acquisition of integrated ISO 14001 certification at the Takaoka and Kuranan plants
	Won a Fujitsu Group environmental contribution award	1000	Kyogase plants
	Installed a seismograph and notification system at each plant	1998	Acquisition of ISO 14001 certification at the Arai Plant
2006	Completed an environmentally friendly new facility at the Wakaho Plant	1007	Adopted an environmental accounting system The Takeska Plant received the Drine for Creativity from the Crience and
	Switched to gas boilers at the Kyogase and Wakaho plants	1997	The Takaoka Plant received the Prize for Creativity from the Science and Takaoka Plant received the Prize for Creativity from the Science and
	(changing fuel from heavy oil)		Technology Agency
	The Arai Plant received a commendation for Excellence in Environmental	1005	Acquisition of ISO 14001 certification at the Takaoka Plant
	Protection from the Niigata Prefecture Environmental Protection Association	1995	Joined Fujitsu's Environmental Protection Council
	Updated the Environmental Initiatives section on Shinko's website	1994	The Takaoka Plant received a group commendation from the Nagano
2005	Integrated the environmental management system company-wide		Prefecture Industrial Pollution Control Association
	 The Wakaho Plant was certified by Nagano Prefecture as 		Fully phased out all chlorinated organic solvents
	an environmentally friendly enterprise	1993	
	• Switched to a gas boiler at the Arai Plant (changing fuel from heavy oil)		Reorganized the Environmental Measures Committee
	Combined the Environment Management System (EMS) and green factory		Established the Shinko Electric Environmental Charter
	initiatives		Fully phased out specified Freon
2004	Acquired Fujitsu Group Integrated EMS certification as well as certification	1988	Established the Freon Gas Measures Committee
	for all sites in Japan, including all domestic sales offices and subsidiaries		
	The Research & Development Division received the LCA Japan Forum		
	Encouragement Prize from the First Life Cycle Assessment Society (LCA)		
	of Japan		
	 Inaugurated the Kurita Sogo Center 		
	Reorganized the Environmental Measures Committee and established the		
	Environmental Committee and Environmental Measures Execution		
	Committee		
	 Formulated the Environmental Protection Program (Stage 4) 		

ISO 14001 Certifications

Sites in Japan (Sites Registered under the Fujitsu Group Integrated ISO Certification)

Head Office, Plants and Facilities
Head Office/Kohoku Plant, Wakaho Plant, Takaoka Plant, Arai Plant, Kyogase Plant, Aizu Branch, SHINKO R&D Center
Subsidiaries in Japan
SHINKO PARTS CO., LTD., SHINKO TECHNOSERVE CO., LTD.

Production Sites outside Japan

SHINKO ELECTRONICS (MALAYSIA) SDN. BHD. KOREA SHINKO MICROELECTRONICS CO., LTD. SHINKO ELECTRIC INDUSTRIES (WUXI) CO., LTD.

Details at: http://www.shinko.co.jp/english/environment/ems.html

GRI Guideline Comparison Table

We referred to version 3.1 of the GRI Sustainability Reporting Guidelines (G3.1) when preparing the Environmental and Social Report 2015.

Application levels are defined as measures that objectively show the extent to which the framework of the GRI Sustainability Reporting Guidelines was applied in preparing a report. We evaluated this year's report in terms of achieving the C application level through self-assessment.



Sector supplement in final version

Performance Indicators may be selected from any finalized Sector Supplement, but 7 of the 10 must be from the original GRI Guidelines Performance Indicators may be selected from any finalized Sector Supplement, but 14 of the 20 must be from the original GRI Guidelines

Section	Indicator	Pages	Section	Indicator	Pages
1 Strate	gy and Analysis		3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased	P.1
1.1	Statement from the most senior decision-maker of the organization (e.g.,	P.2		facilities, joint ventures, suppliers).	
	CEO, chair, or equivalent senior position) about the relevance of		3.7	State any specific limitations on the scope or boundary of the report.	P.1
	sustainability to the organization and its strategy.		3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities,	P.1
				outsourced operations, and other entities that can significantly affect	
	izational Profile	P.3		comparability from period to period and/or between organizations.	
2.1	Name of the organization.	-	3.9	Data measurement techniques and the bases of calculations, including	P.1
2.2	Primary brands, products, and/or services.	Pp.3-4		assumptions and techniques underlying estimations applied to the	
2.3	Operational structure of the organization, including main divisions,	P.3		compilation of the Indicators and other information in the report.	
	operating companies, subsidiaries, and joint ventures.		3.10	Explanation of the effect of any re-statements of information provided in	NA
2.4	Location of organization's headquarters.	P.3	5.10	earlier reports, and the reasons for such re-statement (e.g.,	
2.5	Number of countries where the organization operates, and names of	P.3		mergers/acquisitions, change of base years/periods, nature of business,	
	countries with either major operations or that are specifically relevant to			measurement methods).	
	the sustainability issues covered in the report.		3.11	Significant changes from previous reporting periods in the scope, boundary,	ΝΔ
2.6	Nature of ownership and legal form.	Pp.3,13	5.11	or measurement methods applied in the report.	
2.7	Markets served (including geographic breakdown, sectors served, and types	Pp.5-6	CBI Cont	ent Index	
	of customers/beneficiaries).		3.12	Table identifying the location of the Standard Disclosures in the report.	Pp.41-42
2.8	Scale of the reporting organization, including:	Pp.3-4	3.12		Pp.41-42
	Number of employees;		4 Goveri	nance, Commitments, and Engagement	
	Number of operations;		Governar	nce	
	Net sales (for private sector organizations) or net revenues (for public		4.1	Governance structure of the organization, including committees under the	P.13
	sector organizations);			highest governance body responsible for specific tasks, such as setting	
	• Total capitalization broken down in terms of debt and equity (for private-			strategy or organizational oversight.	
	sector organizations); and		4.2	Indicate whether the Chair of the highest governance body is also an	P.13
	 Quantity of products or services provided. 			executive officer (and, if so, their function within the organization's	
2.9	Significant changes during the reporting period regarding size, structure, or	NA*		management and the reasons for this arrangement).	
	ownership including:		4.3	For organizations that have a unitary board structure, state the number	P.13
	• The location of, or changes in operations, including facility openings,			and gender of members of the highest governance body that are	
	closings, and expansions; and			independent and/or non-executive members.	
	Changes in the share capital structure and other capital formation,		4.4	Mechanisms for shareholders and employees to provide recommendations	P.13
	maintenance, and alteration operations (for private sector organizations).			or direction to the highest governance body.	
2.10	Awards received in the reporting period.	NA	4.8	Internally developed statements of mission or values, codes of conduct,	Pp.11-12
				and principles relevant to economic, environmental, and social performance	
•	t Parameters			and the status of their implementation.	
Report P		D 1	Commitr	nents to External Initiatives	
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	P.1		Explanation of whether and how the precautionary approach or principle is	Pp.11-14
3.2	Date of most recent previous report (if any).	P.1	_	addressed by the organization.	
3.3	Reporting cycle (annual, biennial, etc.)	P.1	Stakehol	der Engagement	
3.4	Contact point for questions regarding the report or its contents.	P.42	4.14	List of stakeholder groups engaged by the organization.	Pp.11-12
-	cope and Boundary			Examples of stakeholder groups are: civil society; customers; employees,	
3.5	Process for defining report content, including:	Pp.1,11		other workers, and their trade unions; local communities; shareholders and	
	Determining materiality;			providers of capital; and suppliers.	1
	 Prioritizing topics within the report; and 		4.15	Basis for identification and selection of stakeholders with whom to engage.	Pp.11-12
1	 Identifying stakeholders the organization expects to use the report. 	1	4.15	basis for identification and selection of stakeholders with WIOIII to eligage.	L-h-11-15

GRI Guideline Comparison Table

S	ection	Indicator	Pages
5 Ma	nagement	Approach and Performance Indicators	
Econ	omic Perfo	rmance Indicators	
Aspec	t: Economi	c Performance	
EC3	Core	Coverage of the organization's defined benefit plan obligations.	(Year-end
			Report
			Pp. 46-48)
Aspec	t: Indirect	Economic Impacts	
EC8	Core	Development and impact of infrastructure investments and	Pp.25-26
		services provided primarily for public benefit through commercial,	
		in-kind, or pro bono engagement.	
Envir	onmental	Performance Indicators	•
Aspec	t: Material		
EN1	Core	Materials used by weight or volume.	P.37
Aspec	t: Energy	·	·
EN3	Core	Direct energy consumption by primary energy source.	P.37
EN4	Core	Indirect energy consumption by primary source.	P.37
Aspec	t: Water		
EN8	Core	Total water withdrawal by source.	P.37
EN10	Additional	Percentage and total volume of water recycled and reused.	P.37
Aspec	t: Emission	s, Effluents, and Waste	
EN16	Core	Total direct and indirect greenhouse gas emissions by weight.	P.37
EN17	Core	Other relevant indirect greenhouse gas emissions by weight.	P.37
EN20	Core	NOx, SOx, and other significant air emissions by type and weight.	P.37
EN22	Core	Total weight of waste by type and disposal method.	P.37
EN23	Core	Total number and volume of significant spills.	P.28
Aspec	t: Compliar	nce	
EN28	Core	Monetary value of significant fines and total number of non-	P.28
		monetary sanctions for non-compliance with environmental laws	
		and regulations.	
Aspec	t: Overall	ļ -	
EN30	Additional	Total environmental protection expenditures and investments by	P.36
		type.	
Socia	I Performa	ance Indicators	I
Labor	Practices a	nd Decent Work	
	t: Employn		
LA1	Core	Total workforce by employment type, employment contract, and	P.18
		region, broken down by gender.	
LA2	Core	Total number and rate of new employee hires and employee	P.18
		turnover by age group, gender, and region.	-
LA15	Core	Return to work and retention rates after parental leave, by	P.20
		gender.	
	I		ļ

S	ection	Indicator	Pages
Aspec	t: Labor/Ma	anagement Relations	
LA4	Core	Percentage of employees covered by collective bargaining	P.20
		agreements.	
Aspec	t: Occupati	onal Health and Safety	
		Percentage of total workforce represented in formal joint	P.21
		management-worker health and safety committees that help	
		monitor and advise on occupational health and safety programs.	
LA7	Core	Rates of injury, occupational diseases, lost days, and	P.22
		absenteeism, and number of work-related fatalities, by region	
		and by gender.	
LA8	Core	Education, training, counseling, prevention, and risk-control	P.22
		programs in place to assist workforce members, their families, or	
		community members regarding serious diseases.	
LA9	Additional	Health and safety topics covered in formal agreements with	P.21
2.0	/ laareror lai	trade unions.	
Asnec	t: Training	and Education	
	-	Programs for skills management and lifelong learning that	Pp.23-24
	/ laareror lai	support the continued employability of employees and assist	. p.20 2 .
		them in managing career endings.	
ΙΔ12	Additional	Percentage of employees receiving regular performance and	Pp.23-24
LAIZ	Addicional	career development reviews, by gender.	1 p.25 24
Acnor	t: Diversity	and Equal Opportunity	
	Core	Composition of governance bodies and breakdown of employees	P.19
LAIJ	COIC	per employee category according to gender, age group, minority	1.15
		group membership, and other indicators of diversity.	
Huma	n Pichte Po	rformance Indicators	
		ent and Procurement Practices	
-	Core	Percentage of significant suppliers, contractors, and other	Pp.16-17
TINZ	COLE	business partners that have undergone human rights screening,	rp.10-17
		and actions taken.	
HR3	Core		P.18
пкэ	Core	Total hours of employee training on policies and procedures	P.10
		concerning aspects of human rights that are relevant to	
A	the Child Lab	operations, including the percentage of employees trained.	
	t: Child Lab		Dn 16 10
пко	Core	Operations and significant suppliers identified as having significant	Pp.10-19
		risk for incidents of child labor, and measures taken to contribute	
		to the effective abolition of child labor.	
Aspec HR7		nd Compulsory Labor	D= 16 10
HR/	Core	Operations and significant suppliers identified as having significant	Рр.16-19
		risk for incidents of forced or compulsory labor, and measures to	
		contribute to the elimination of all forms of forced or compulsory	
		labor.	
	•	nce Indicators	
	t: Local Cor		D 05 06
SO1	Core	Percentage of operations with implemented local community	Pp.25-26
		engagement, impact assessments, and development programs.	
	t: Corruptic	n	-
Aspec SO3	Core	Percentage of employees trained in organization's anti-corruption policies and procedures.	P.14

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