# We are building a highly transparent corporate structure to earn the trust of all stakeholders.

## Corporate Governance

We must meet the expectations and respect of shareholders, customers, local communities, employees, and other stakeholders. Corporate governance underpins social respect and support. We have thus taken steps to improve both the Board of Directors and our auditing system, while streamlining our management organization and bolstering our compliance system.

#### Corporate Governance Structure

We adopted a Corporate Auditor System as the basis of our Corporate Governance System. The Board of Auditors includes two independent members assessing our operations and management to ensure that our business properly serves stakeholders.

The Board of Directors similarly has two external members. We ensure management transparency by separating that board's oversight from executive implementation.

The chart below shows our corporate governance structure, including the Internal Auditing System

#### Management Committee

DENKA established the Management Committee, which is composed of directors, corporate auditors and some executive officers, to streamline and accelerate deliberation on important

managerial matters. For such important matters as the drawing up of a budget and capital investment, we set up special committees or deliberative councils by function redundant.

#### Internal Controls

Internal control systems are fundamental to meeting society's expectations and gaining its respect. We will continue to improve our systems in line with the policies of the Board of Directors. The following outlines details of the system.

#### 1. Board of Directors and Executive Officers

Two of our ten directors are external. In April 2008, we reformed this body to separate oversight and implementation by eliminating ranks within the board while reinforcing its supervisory functions. The Board of Directors appoints executive officers to run operations under the leadership of the president.

#### 2. Internal Auditing System

The Internal Auditing Department conducts our in-house checks, with assistance from the Legal, Environment and Safety, and Quality Management departments. It also works closely with the Product Liability, Responsible Care and other committees based on their specific functions. Each department and committee collaborates to educate on legislation and audit operations. The results are reported to the Board of Directors as needed.



We inaugurated the Compliance Hotline System supplement internal audits by swift identifying and addressing any violations (see page 2).

#### 3. Internal Controls Reporting System

This system under Japan's Financial Services and Exchange Act aims to ensure that financial statements are reliable.

We conduct checks of Groupwide business procedures to reduce mistakes and possible risks in keeping with the implementation standards of this system, swiftly addressing any problems that are discovered. We issued an internal control report following the system's implementation in fiscal 2008. In fiscal 2010, this document declared the effectiveness of our internal controls based on an evaluation in line with assessment standards for generally accepted financial reports.

An independent accounting firm (ERNST & YOUNG SHINNIHON LLC) audited our report and determined that all significant aspects of our disclosure were proper. We will continue to maintain internal controls for the purpose of ensuring the reliability of our financial reports.

## Compliance

Compliance is essential for sustainable growth. We accordingly adhere to internal rules and legislation and refrain from acts that violate moral and ethical norms. In 2002, we codified conduct standards in the DENKA Group Ethics Policy.

We established the Ethics Committee, which the president chairs, to oversee compliance and enforce the policy. We adopted compliance policies for the Legal, Environmental and Safety, Intellectual Property and other departments.

We educate employees on compliance through programs run by the Human Resources Development Center.

#### Compliance Hotline System

This system covers any shortfalls in our internal control and compliance systems by enabling us to fix organizational problems that may arise. We set up the Compliance Hotline in keeping with the DENKA Group Ethics Policy. The hotline accepts calls on actions that may or do violate

In general, each business unit is responsible for identifying and managing its specific risks. We maintain special sections and permanent committees to handle environmental, safety, product liability and export control issues that affect the entire Company.

We formulated our Risk Management Guidelines to comprehensively tackle incidents that greatly affect corporate activities. We also set up the Crisis Measures Headquarters and the permanent Risk Management Committee.

that policy. The Ethics Committee quickly addresses reports

The hotline's mandate is to be fair and swift. It receives reports from the Corporate Auditors' Office and the labor union, which operate independently, as well as from the Ethics Committee Administrative Office and general affairs sections within all offices. People can send reports to an external law firm. They can also e-mail reports to internal auditors. During fiscal 2010, we received one report.

The DENKA Group Ethics Policy specifically safeguards whistleblowers from discrimination and mistreatment.

#### Risk Management

It is important to understand the diverse and numerous hazards of corporate activities through proper risk control.



#### Risk Management Overview

#### The DENKA Group Guidelines

- 1. We will promote sustainable social and business development out of a conviction that corporate social responsibility is the essence of business.
- 2. While constantly ensuring quality to maintain customer trust, we will contribute to sound social progress by developing and supplying products and services that are safe and environment friendly.
- 3. We will operate fairly.
- 4. We will maintain a good level of communication with society and disclose appropriate information.
- 5. We will comply with laws and regulations and operate fairly according to social norms.
- 6. We will maintain safe, clean and comfortable workplaces and respect all basic human rights.
- 7. We will use, reuse and recycle resources to help protect the environment.
- 8. We will maintain security and disaster prevention measures, participate in environmental protection activities and communicate with society.
- 9. We will contribute to society as a good corporate citizen.
- 10. We will contribute to social development as a good member of the global community.

Established in 2007

## Reference

Initiatives in Human Affairs and Labor Management

## We endeavor to maintain safe and comfortable workplaces.

#### Sexual Harassment

DENKA has instituted policies to prevent sexual harassment and inform all employees of these policies through in-house newsletters and the Company intranet, while establishing a consultation hotline (Ethics Committee) in response to various inquiries and requests for advice. Furthermore, we clearly stipulate disciplinary code in our employment regulations.

### Work-Life Balance

DENKA established the Action Plan for General Business Operators (April 1, 2011-March 31, 2014) based on the Act on Advancement of Measures to Support Raising Next-Generation Children and will promote the following:

•Facilitating the acquisition of annual paid holidays

•Shortening of overtime by streamlining works

•Encouraging school attendance through the internship and scholarship systems

Furthermore, we clearly stipulate regulations regarding childcare and nursing care leaves in our employment regulations.

#### Change Management

This encompasses establishing rules to assess risks and implement measures where needed for changes in the 4Ms\* during production. Preliminary safety assessments are important when building plants that use new processes. Change management comes into play when we upgrade or modify facilities. Facilities and operations departments conduct preliminary safety assessments and gather with in-house third parties to discuss risks relating to fires, explosions and worker safety.

In particular, we emphasize preventing key lapses in areas concerning disaster prevention and occupational health.

\* The 4Ms: man, machines (facilities, equipment, tools), materials (raw materials and components) and methods (including work methods/operations, processing conditions and formulas)

## Occupational Safety and **Health Management System**

DENKA conducts risk assessment to monitor the degree of risk at each plant.

Based on assessment results, we comprehensively manage risks and implement improvements. The status of certification acquisition from external institutions is as follows.

Plant Name	Certification System	Certification Number	Acquisition Date
Chiba Plant	OHSAS18001	1026525	February 6, 2007
Omi Plant	OSHMS	10-15-6	March 8, 2010
DSPL Seraya Plant	OHSAS18001	SNG6011133	January 23, 2011



# DENKA is Promoting the Development of Environment-Friendly Products in

# All Business Areas

	Category	Business Department	Product Name	Application	Details of Contribution Effects
1	CO <sub>2</sub> emissions reduction in manufacturing process	Organic Chemicals Department	Acetylene black (AB)	Tire bladders	Incorporated in bladders used in the manufacturing (vulcaniza- tion) of tires to improve heat conductivity and thus shorten vulcanization time (contributing to energy conservation)
		Organic Chemicals Department	Chloroprene rubber (CR)	1) Gaskets for photo- voltaic panels	Potential for use in roof panel gaskets, which require a particular level of flame resistance
		Organic Chemicals Department	Chloroprene rubber (CR)	2) Vibration insulation rubber for wind power generation	Potential for use in vibration insulation rubber for wind turbine nacelles
		Organic Chemicals Department	Chloroprene rubber (CR)	3) Charging cables for electric vehicles	Potential for use in charging cables, which require flame resis- tance
		Organic Chemicals Department	Acetylene black (AB)	Lithium-ion secondary cells	Used as a conductive aid
2		Electronic Products Department	ALSINK, ANP	Railway industry equipment EV	Used to dissipate the high heat generated by drive transistors as well as in electric insulation substrates to improve inverters' efficient use and control of electricity
		Electronic Products Department	HITTPLATE	Air conditioners	Used to dissipate the high heat generated by drive transistors as well as in electric insulation substrates to improve inverters' efficient use and control of electricity
	Used in	Electronic Products Department	Thermally conductive sheets	EV	Used to dissipate the high heat generated by drive transistors as well as in electric insulation substrates to improve inverters' efficient use and control of electricity
	environment- friendly products	Electronic Products Department	HITTPLATE, thermally conductive sheets	LED	Used to improve LED luminance by insulating LED chips from heat
		Functional Ceramics Department	Spherical alumina, BN powder	LED	Inserted in resin as filler for the purpose of insulating and effec- tively dissipating the heat generated by LED chips, thereby enhancing LED's luminance
		Functional Ceramics Department	Molded BN products	LED manufacturing equipment	Used in LED chip manufacturing equipment as an excellent, easy to cast insulation material
		Functional Ceramics Department	B4C powder	Nuclear power generation	Used in nuclear power generation as a reaction control neutron- absorbing material
		Electronic Products Department	ALONBRIGHT	Phosphor for LEDs	Used increasingly in the shift to backlights for LCD TVs and LED lighting, which is expected to reduce energy consumption
		Industrial Materials Department	DX FILM	Photovoltaic back sheets	Used on photovoltaic back sheets, takes advantage of fluorine resin compound's characteristics of weather resistance, contami- nation resistance and chemical resistance in addition to realizing easy thermal adhesion on substrates
		Housing & Environmental Materials Department	Rain Oasis	Rainwater storage system	Used to collect rainwater through a system of rain gutters with water intake fittings. Collected rainwater may be used for water- ing gardens and washing cars, contributing to water savings and helping to prevent global warming.
		Inorganic Chemicals Department	ALCEN	Automotive engine peripherals	Used to replace steel automotive engine parts in the shift to aluminum parts reinforced with alumina fiber, which is helping to reduce automobile weight and thus improve fuel efficiency and reduce $CO_2$ emissions
3	Reduce the	Household Packaging Materials Department	SOFRIA	Food packaging	Used to make food packaging as thick as but lighter than A-PET
3	in use	Industrial Materials Department	Karariyan Y	Various types of packaging	Used for packaging high-molecular-weight hyaluronic acid prep- arations and enabling a shift from blister packs to pillow packag- ing, thereby contributing to a reduction in package weight
		Special Cement Additives Department	SUQCEM	Concrete precast products	Used to create lighter, thinner products than possible with ordi- nary concrete, this superhigh-strength fiber-reinforced concrete can cut construction costs.

	Category	Business Department	Product Name	Application	Details of Contribution Effects
		Inorganic Chemicals Department	SARUFEX	Steel desulfurization	Used in place of calcined lime, the most common desulfurizing agent, these products lower thermal loss during steel refining
		Inorganic Chemicals Department	Synthetic FLUX COMPOUND		while helping to reduce CO <sub>2</sub> emissions from transportation by lowering slag ejection
		Fertilizer Department	Calcium cyanamide	Agriculture	A nitrogen fertilizer with lower N <sub>2</sub> O emissions compared with other nitrogen fertilizers, can also be used to curb $CH_4$ emissions from rice straw
CO <sub>2</sub> emission 4 reduction	CO <sub>2</sub> emissions	Inorganic Chemicals Department	ALCEN	Fire resistant materi- als	Used as a high heat insulator to reduce heat loss and thus save energy, boasts greater heat resistance than ceramic fibers, thereby improving repair and maintenance frequency for fireproof linings while helping to lower $CO_2$ emissions from the transporta- tion of products and waste
4	when in use	Special Cement Additives Department	Σ1000 Σ2000	Concrete secondary product	Used as high-strength additives to reduce the volume of high $CO_2$ emitting cement needed to make concrete
		Special Cement Additives Department	Σ80N	High-strength cast- in-place concrete	Used as high-strength additive to reduce the volume of high $\rm CO_2$ emitting cement needed to make concrete
		Special Cement Additives Department	F-DAC	Concrete secondary product	Increasing the strength of concrete, F-DAC can shorten pre- curing and steam curing time while reducing the CO <sub>2</sub> emissions from products made of concrete
		Special Cement Additives Department	TECHNOCRETE method (electro- chemical repair work)	Repair and mainte- nance of concrete structures	When concrete is damaged by salt or neutralized, the TECHNOCONCRETE method repairs it electrochemically so that it does not need to be demolished, thereby reducing the amount of construction materials needed compared with existing repair methods.
		Inorganic Chemicals Department	Hydrated lime		By reacting with the $CO_2$ formed during the limestone cycle, encompassing limestone, calcined lime, calcium carbide, (water and) hydrated lime, hydrated lime absorbs $CO_2$ while helping to curb the use of heavy machines for limestone mining (and thus reduce $CO_2$ emissions).
		Organic Chemicals Department	CR latex	Water-based adhe- sives	With no VOCs, this product helps customers to reduce the use of (or not use) solvents that produce VOCs while improving oper- ational environment.
		Functional Resin Department	CLEAREN	Sheets	Lightweight (80% of the specific gravity of the competitive material PET-G), CLEAREN has a lower energy burden regarding transpor- tation per unit area and volume. In addition, it has a processing temperature for sheet and other materials that is 50C° lower than that of PET-G, therefore it lowers energy costs for processing.
	Improve cus- tomers' opera- tional	Functional Resin Department	MS	Moldings	MS resin is lighter than PMMA when used for the same applica- tions (specific gravity is 6% lower than that of PMMA) and has lower energy burden in transportation per unit area and volume.
5		Tapes and Adhesive Department	TEMPLOC	Temporary adhesives	Unlike previous temporary adhesives that had to be removed by dissolving with organic solvents that posed potential health haz-
	(in-house pro- cesses)	Tapes and Adhesive Department	SOLARLOC	glass in smartphones	ards for workers, these products can be removed with water, averting the aforementioned risk.
		Special Cement Additives Department	Slurry shot method (NATMIC US-32, US-50)	Shotcrete for tunnels	Reduce dust and concrete splash when spraying shotcrete, while improving the operational environment and decreasing material losses.
		Special Cement Additives Department	Slurry shot method (NATMIC LSA, USS)	Shotcrete for tunnels	The low alkaline content of NATMIC LSA and USS results in an improved operational environment with reduced dust and less concrete splash when shotcrete is sprayed, qualities that, in turn, reduce the environmental burden and decrease material loss.
		Special Cement Additives Department	Super Cement	Emergency repair of road, railways and airports	Using ultrarapid hardening concrete that quickly attains initial strength, Super Cement can gain practical strength in a short period of time, helping to shorten construction periods and reduce the time of closure to traffic.
		Special Cement Additives Department	F-DAC B-FORM	Concrete secondary products	Facilitating the hardening and increasing the strength of con- crete, these products shorten pre-curing and steam curing time while lowering costs by reducing fuel use and improving produc- tion efficiency.
		Special Cement Additives Department	DENKA TECHNOCRETE SYSTEM (electro- chemical repair work)	Repair and mainte- nance of concrete structures	When concrete is damaged by salt or neutralized, the TECHNOCONCRETE method repairs it electrochemically so that it does not need to be demolished, thereby extending the life of structural objects and reducing lifecycle costs and waste generation.
6	Reduction of environmental burdens and improvement	Special Cement Additives Department	SUNTIGHT T-K, T-F	Repair and mainte- nance of sewage systems	The sulfuric acid generated inside sewage facilities deteriorates concrete. Therefore, the use of acid-resistant mortar for repair and maintenance work can enhance the facility durability and extend the life of facility buildings.
	of durability	Special Cement Additives Department	EIEN	Concrete precast products	Incorporating special cement additives ( $\gamma$ -2CaO and SiO <sub>2</sub> ), EIEN can densify the internal structure of concrete by reacting with carbonate ions, thereby improving concrete durability and thus reducing life cycle costs.
		Special Cement Additives Department	SUQCEM	Concrete precast products	SUQCEM's durability is extremely high thanks to its ultra-high strength. Therefore, it can reduce life cycle costs.

## Reference

# We are pursuing ongoing improvement based on our quality and environmental management systems. We secured the following ISO certifications in fiscal 2010:

Note: Only the ISO 9001 certification excludes the Central Research Institute.

## Status of ISO Certification Acquisition

	ISO 14001 (I	Environment)			ISO 9001 (Quality)
	Date certified	Registration number	Date certified	Registration number	Products covered
Omi Plant	October 16, 1999	187071/A (BV)	August 19, 1994	275156 (BV)	Chloroprene, POVAL, ASR, SAKNOHOL, butyral, special cement additives, cement, arsenic chemicals, monochloro acetic acid, sodium monochloroacetate, caustic soda, monosilane, dichlorosilane, hexachlorodisilane
Omuta Plant	October 28, 2000	284330 (BV)	November 7, 1998	439189 (BV)	Fused silica, special cement additives, nitride powder, ceramic substrates, steel additives, acetylene black, calcium aluminate cement, FIRELEN, boron, boron carbide powder, thermally conductive materials, heat sinks
Chiba Plant	May 31, 1999	180943 (BV)	March 22, 1995	155885 (BV)	Polystyrene, acrylonitrile styrene resins, methyl methacrylate styrene resins, methacrylate-butadiene- styrene resins, methacrylate acrylonitrile butadiene styrene resins, acrylonitrile butadiene styrene resins, styrene- maleimide copolymers, styrene-butadiene copolymers, vinyl acetate, ethylene vinyl acetate copolymers, acrylic rubber, polystyrene sheet, acetic acid, styrene monomer, toluene, ethyl benzene, rain gutters, vinyl tape, corrugated pipes, duct hosing, wall ducts, polyvinyl chloride
Shibukawa Plant	May 21, 2001	363444 (BV)	October 23, 1996	484541 (BV)	Metal substrates, resin compounds, adhesives, emitters, thermally conductive spacers, thermally conductive adhesive sheets, electromagnetic shields, Elegrip Tape
Ofuna Plant	November 9, 2001	JQA-EM1895 (JQA)	October 25, 1996	JQA-1429 (JQA)	Packaging tape, plastic films, vinyl compounds, polyvinyl chloride fibers, embossed carrier tape for taping
Isesaki Plant	September 30, 2003	1090712 (BV)	February 28, 2008	428794 (BV)	Stretch films, food packaging sheets, electronic packaging sheets, cover tapes
Central Research Institute	July 5, 2004	352185 (BV)	—	_	_
DSPL Merbau Plant	June 8, 2001	SNG0190016 (Lloyd's)	November 29, 2000	SNG0160194 (Lloyd's)	Acetylene black
DSPL Seraya Plant	May 28, 2003	SNG0190023 (Lloyd's)	September 27, 2001	SNG0160242 (Lloyd's)	Polystyrene, methyl methacrylate styrene resins, styrene- butadiene copolymers
DAPL Tuas Plant	March, 2003	2003-0194 (PSB)	April, 2000	99-2-0984 (PSB)	Manufacture of fused silica filler
Denka Advanced Materials (Suzhou) Co., Ltd.	May 20, 2008	310092-UK (BV)	September 19, 2007	273428 (BV)	Electronic packaging sheets, cover tapes
DENKA Polymer Co., Ltd.	_	_	September 14, 2001	C2010-01748 (PJR)	Plastic food packaging and plastic sheets
DENKA SEIKEN Co., Ltd.	June 23, 2000	803041(BV)	July 13, 2005	12 100 25631 TMS (TMS)	Clinical chemistry diagnostic reagents, immunological diagnostic reagents, bacteriological and virological diagnostic reagents, sterile cotton swabs
CRK Corporation	_	_	November 19, 2009	1069716 (BV)	Rubber compounds, rubber tape, rubber molding

DSPL: Denka Singapore Pte., Ltd. DAPL: DENKA Advantech Pte., Ltd.

## Reference

## **Environmental Accounting**

# In fiscal 2006, we began accounting for our investments and spending as well as the environmental and economic effects of our activities in order to assess the impact of our conservation investments.

## 1. Conservation Costs

In fiscal 2010, initiatives to save energy accounted for approximately 55% of environmental investments, with research and development spending to conserve resources representing another approximately 40%.

	Coverage: Plants and Research Institutes						
Catagony	Detaile	Conservation costs (millions of yen)					
Galegory	Details	Investments	Expenses				
1. Business site costs	(Subtotal)	898	2,424				
(1) Pollution prevention	n Environmental burden reduction measures	603	1,922				
(2) Conservation	Conserving energy	212	83				
(3) Recycling resource	es Using resources effectively	83	419				
2. Upstream and downstream co	sts Changing raw materials	0	0				
3. Administrative costs	Environmental education	0	30				
4. R&D costs	Conserving resources	791	1,754				
5. Social activity costs	Environmental education	0	5				
6. Environmental damage costs	Community relations	0	114				
7. Others		0	2				
Total		1,688	4,330				

From 2007 to 2009, DENKA has proactively invested in energy saving-related projects from which it can expect quick results. Although we maintain this policy, direct investment costs in fiscal 2010 declined due to the revision of some themes. From fiscal 2011, we will continue to invest in key areas based on careful review.

## 2. Conservation Effects

We calculated the environmental load data.

				riangle: Increase
Environmental load	Units	Fiscal 2009 results	Fiscal 2010 results	Effects
CO <sub>2</sub> emissions (from energy sources)	10,000 t	229	247	△18
SOx emissions	t	870	257	613
NOx emissions	t	4,470	4,320	150
Soot and dust emissions	t	149	111	38
COD (BOD) discharges	t	1,120	1,600	△480
Water used	1,000m <sup>3</sup>	78,600	80,400	△1,800
PRTR substance emissions	t	136	122	14
Waste	1,000 t	100	112	△12
Final waste disposal	t	510	304	206
CO <sub>2</sub> emissions from transportation	1,000 t	40	39	1

Environmentally harmful substance emissions declined compared with the fiscal 2009 level. The SOx emissions volume showed a substantial drop thanks to the shift in fuel to natural gas.

## **3. Economic Effects**

We calculated proceeds from selling waste, energy savings, reductions in waste treatment costs and yield improvements.

Category	Item	Details	Effects (millions of yen)
Profits	Proceeds from selling waste from core operations and income from recycling waste	Sales profits	648
	Lowering energy costs by conserving energy	Conserving energy	177
Cost reductions	Reducing waste treatment costs by conserving or recycling resources	Using resources effectively	△5
Total			820
-			•

External processing costs increased due to an increase in test products that accompanied the launch of the expanded chloroprene plant. We will strive to secure stable operations to increase earnings.

Output

# Denka strives to reduce the emission of substances and waste generated by its production activities while pursuing the appropriate treatment of such emissions.

### Emissions

#### Nitrogen Oxide (NOx)

Production volume declined approximately 3% year on year, reflecting decreased cement production. We will consider the establishment of denitration facilities.



#### Soot and Dust

Emissions fell approximately 25% due to reduced cement production and the shift in fuel to natural gas.



#### Sulfur Oxide (SOx)

Emissions significantly dropped thanks to the use of gas turbines.



## Chemical and Biochemical Oxygen Demand (COD (BOD))

Emissions increased due to the large-scale chloroprene rubber production increase. We will reinforce wastewater processing facilities.



### PRTR Substances Emissions

Emissions from the Omi Plant grew due to the increased chloroprene rubber production. However, toluene emissions at the Chiba Plant declined, reflecting a shift to water-soluble adhesives that helped bring overall toluene emissions down by approximately 10%. In addition, ethylene glycol (with emissions totaling 9 tons) was excluded from the PRTR substances list due to a revision to the Law, while calcium cyanamide (with emissions totaling 9 tons) and other substances were newly included.



#### Waste

## Changes in the amount of waste for final disposal

In fiscal 2010, DENKA promoted the recycling of dust and waste plastic, and the total amount of landfill waste was reduced approximately 200 tons. The emissions ratio (final disposal amount/amount of waste generated  $\times$  100) was also drastically improved from 0.51% in fiscal 2009 to 0.27%, maintaining the status of zero emissions (an emissions ratio of below 1%).

#### Fiscal 2010 Substance Emissions and Transfers

The following table shows emissions and transfers exceeding one ton of substances on the register.

	Emissions					Amount
FRIR Substances	Air	Water	Soil	Landfill	Total	ferred
Zinc	0	0	0	0	0	3
n-Butyl acrylate	0	0	0	0	0	2
Acrylonitrile	2	0	0	0	2	12
Acetaldehyde	2	4	0	0	6	0
Aniline	0	0	0	0	0	7
Ethyl benzene	3	0	0	0	3	51
Ferric chloride	0	0	0	0	0	43
Calcium cyanamide	0	0	0	8	8	0
Xylene	1	0	0	0	1	0
Vinyl acetate	18	0	0	0	18	0
Dimethyl formamide	0	0	0	0	0	32
Styrene	25	0	0	0	25	152
Water soluble copper salt	0	4	0	0	4	0
Toluene	32	1	0	0	33	35
Carbon disulfide	1	1	0	0	2	0
Bis (2-ethylhexyl) phthalate	0	0	0	0	0	2
Hydrogen fluoride	0	0	0	0	0	23
Boron and boron compounds	0	13	0	0	13	3
2-ethylhexyl methacrylate	0	0	0	0	0	1
Methyl methacrylate	2	0	0	0	2	14
(Others total)	3	0	0	1	4	6
Total	90	23	0	9	122	386
Dioxins (mg-TEQ) (see note)	76	50	0	0	126	0

Units: tons (excluding dioxins)



We thoroughly undertake management operations that fully consider safety, environmental protection and quality in all our processes, from raw materials procurement to research, production, logistics, consumption and disposal.

#### Product Safety Management

#### Materials Safety and Management Flowchart





Material safety data sheets (MSDS) MSDSplus (see note 3) AIS (see note 3)

We ensure product safety at each phase-from development, production and use by customers-while focusing on maintaining and improving quality.

### 1. Verify the Safety of Raw Materials and Necessary Quality Level and **Engage in Production Process Design**

We select and use raw materials for which safety can be verified while developing products that conform with customer and legal demands. We establish production processes that ensure consistent quality and thus trust in the products we develop. 2. Green Procurement /Purchasing Specifications

We purchase and use raw materials based on the Negative List, which takes into consideration Japanese and international environmental management regulations, as well as purchasing specifications that outline the required characteristics of purchased raw materials. Consequently, we are striving to manufacture superior products from quality raw materials and production processes.

#### 3&5. Manufacturing Vendor Audits

We outsource some raw materials production processes and the manufacture of semi-processed goods. We regularly audit manufacturing vendors based on our inhouse standards for quality, logistics, environmental management and product safety. 4. Maintain/Improve the Environmental Protection and Quality

We are undertaking environmental and quality management operations; gradually expanding the scope of our efforts to include new products; and working to maintain and improve quality, environmental protection and safety.

#### 6. Waste Contractor Audits

We commission waste contractors in line with the Waste Management and Public Cleansing Law, requiring them to issue manifests and confirm collection. We regularly evaluate the operations and financial positions of these vendors and visit their waste processing sites.

#### 7. Management of Environmentally Hazardous Substances in Products

We established the Negative List, which lists substances that are considered to be harmful to people and the environment. We are taking steps to ensure product quality and safety while reducing environmental load by placing restrictions on usage during the raw material phase and by decreasing the residual volume of harmful substances in our products. The Central Research Institute (which is in charge of certifying measurements) analyzes the amount of residual substances harmful to the environment contained within raw materials and products. Analytical data on items that do not meet regulatory standards is shared with the production, sales, and analysis and product management departments.

#### 8. Displaying Yellow Cards and Yellow Card Container Labels

We require drivers to carry yellow cards that explain post-accident procedures. We also label containers to ensure swift and proper remediation. We regularly inform drivers of our requirements and conduct emergency drills.

#### 9. Material Safety Data Sheets (MSDS)

We produce these sheets for all products to ensure proper handling according to physical and chemical hazards and health and environmental risks. The sheets inform customers and help educate employees. We have begun disseminating information on environmentally hazardous substances contained in our products to customers through the MSDS plus-which supplements information conveyed on MSDS sheets-and Article Information Sheet systems.

#### Collaborating in Chemical Industry Initiatives

#### High Production Volume Program (HPV)

Through the HPV Program, we and other companies collaborate under the auspices of the International Council of Chemical Associations to evaluate the safety of around 1,000 substances that the Organisation for Economic Co-operation and Development has designated. These substances are used heavily worldwide.

#### Japan Challenge Program

Under this program, manufacturers are working with the Ministry of Health, Labour and Welfare, the Ministry of Economy, Trade and Industry and the Ministry of the Environment to collect, assess and disclose safety information on around 700 chemical substances. We are participating in areas of the program that relate the substances that we use.

#### Notes 1. Good Manufacturing Practices (GMP) refers to standards that Japan's Ministry of Health, Labour and Welfare established in its Ministerial Ordinance on

- Standards for Manufacturing Control and Quality Control for Drugs and Quasi-drugs 2. The Japan Chemical Industry Association created a labeling format to augment the Yellow Card system. The labels present emergency guideline numbers handling of these chemicals in emergencies.
- 3. The Joint Article Management Promotion-consortium (JAMP)'s\* Material Safety Data System plus (MSDSplus) and Article Information Sheet systems throughout Japan and Southeast Asia
- as well as on chemical substances in parts, plastics and other articles. JAMP also establishes mechanisms to disclose and present information on supply-chain products

#### Long-Range Research Initiative

The Japan Chemical Industry Association, the American Chemistry Council and the European Chemical Industry Council oversee this program. The program entails conducting long-term basic research to correctly determine if and/or in what manner chemical substances affect human health and the environment. Currently, they are engaged in long-term basic studies of endocrine disruption due to exposure to chemical substances, cancer caused by neurological exposure to toxic chemicals, and endocrine hypersensitivity due to exposure to chemical substances. We are cooperating fully in the implementation of this program.

and United Nations identification numbers for different chemicals transported in relatively small amounts on the same vehicle. The labels aid in the proper

provide standardized formats for presenting information on substances subject to management. MSDSplus is mainly for substances and agents that are upstream in the supply chain. Article manufacturers produce Article Information Sheets based on that information. JAMP aims to spread its systems

\* JAMP is a cross-industry association established in Japan in 2006 to encourage companies to properly manage information on substances and compounds

#### Consolidated Balance Sheets (Summary)

Millions o					
Amount Account item	As of March 31, 2011	As of March 31, 2010			
Assets					
Current assets	¥143,352	¥138,360			
Cash and time deposits	6,258	6,856			
Notes and accounts receivable, trade	75,564	74,843			
Inventories	47,622	44,413			
Other current assets	14,348	13,017			
Allowance for doubtful accounts	(441)	(770)			
Non-current assets	258,693	262,046			
Property, plant and equipment	203,395	207,005			
Intangible fixed assets	2,749	3,476			
Investment securities	38,571	39,492			
Other	14,123	12,383			
Allowance for doubtful accounts	(146)	(310)			
Total assets	¥402,046	¥400,407			

Liabilities		
Current liabilities	¥153,410	¥150,689
Notes and accounts payable, trade	48,364	45,499
Short-term bank loans	44,632	48,709
Commercial paper	16,000	9,000
Current portion of corporate bonds	—	—
Other current liabilities	44,414	47,480
Long-term liabilities	80,453	89,401
Corporate bonds	25,000	25,000
Long-term debt	28,929	37,866
Other long-term liabilities	26,523	26,534
Total liabilities	233,864	240,091
Total liabilities Net Assets	233,864	240,091
Total liabilities Net Assets Shareholders' equity	233,864	240,091
Total liabilities Net Assets Shareholders' equity Common stock	<b>233,864</b> <b>156,645</b> 36,998	<b>240,091</b> <b>147,190</b> 36,998
Total liabilities Net Assets Shareholders' equity Common stock Capital surplus	<b>233,864</b> <b>156,645</b> 36,998 49,292	<b>240,091</b> <b>147,190</b> 36,998 49,303
Total liabilities Net Assets Shareholders' equity Common stock Capital surplus Retained earnings	<b>233,864</b> <b>156,645</b> 36,998 49,292 73,997	<b>240,091</b> <b>147,190</b> 36,998 49,303 64,550
Total liabilities Net Assets Shareholders' equity Common stock Capital surplus Retained earnings Treasury stock, at cost	233,864 156,645 36,998 49,292 73,997 (3,642)	<b>240,091</b> <b>147,190</b> 36,998 49,303 64,550 (3,662)
Total liabilities Net Assets Shareholders' equity Common stock Capital surplus Retained earnings Treasury stock, at cost Valuation and translation adjustments	233,864 156,645 36,998 49,292 73,997 (3,642) 8,974	240,091 147,190 36,998 49,303 64,550 (3,662) 10,634
Total liabilities Net Assets Shareholders' equity Common stock Capital surplus Retained earnings Treasury stock, at cost Valuation and translation adjustments Minority interests	233,864 156,645 36,998 49,292 73,997 (3,642) 8,974 2,561	240,091 147,190 36,998 49,303 64,550 (3,662) 10,634 2,491
Total liabilities Net Assets Shareholders' equity Common stock Capital surplus Retained earnings Treasury stock, at cost Valuation and translation adjustments Minority interests Total net assets	233,864 156,645 36,998 49,292 73,997 (3,642) 8,974 2,561 168,182	240,091 147,190 36,998 49,303 64,550 (3,662) 10,634 2,491 160,316

#### Consolidated Statements of Income (Summary)

		Millions of yen
Amount Account item	Fiscal 2010	Fiscal 2009
Net sales	¥357,893	¥323,875
Cost of sales	281,219	251,411
Selling, general and administrative expenses	52,054	50,809
Operating income	24,618	21,655
Non-operating income	3,081	1,543
Non-operating expense	4,647	6,310
Ordinary income	23,052	16,888
Extraordinary losses	2,021	1,048
Income before income taxes	21,030	15,839
Income taxes—current	6,385	6,960
Income taxes—deferred	180	(1,644)
Minority interest in earnings of consolidated subsidiaries	108	49
Net income	¥14,355	¥10,474

#### **Consolidated Statement of** Comprehensive Income Millions of yen Amount Account item ¥14,463 Income before minority interests Other comprehensive income Valuation difference on (521) available-for-sale securities (6) Deferred gains or losses on hedges Foreign currency translation adjustments (1,149) Share of other comprehensive income of associates accounted for using equity method 34 Total other comprehensive income (1,642) ¥12,821 Comprehensive Income (Breakdown) Comprehensive income attributable 12,697 to owners of the parent Comprehensive income attributable 123

to owners of the minority interests

## Consolidated Statements of Shareholders' Equity for Fiscal 2010 (April 1, 2010, to March 31, 2011)

	Shareholders' equity					
	Common assets stock	Capital surplus	Retained earnings	Treasury stock at cost	Total shareholders' equity	
Balance at March 31, 2010	¥36,998	¥49,303	¥64,550	¥(3,662)	¥147,190	
Changes of items during the term						
Dividends from retained earnings			(4,910)		(4,910)	
Net income			14,355		14,355	
Net increase in treasury stock				(52)	(52)	
Gain on sales of treasury stock		(10)		71	61	
Reversal of revaluation reserve for land			2		2	
Net changes of items other than shareholders' equity						
Total changes of items during the term	_	(10)	9,447	19	9,455	
Balance at March 31, 2011	¥36,998	¥49,292	¥73,997	¥(3,642)	¥156,645	

Valuation and translation adjustments							
	Unrealized gain on securities	Deferred gains or losses on hedges	Revaluation reserve for land	Foreign currency translation adjustments	Total cumulative other comprehen- sive income		Total net common assets
Balance at March 31, 2010	¥5,361	¥—	¥7,597	¥(2,323)	¥10,634	¥2,491	¥160,316
Changes of items during the term							
Dividends from retained earnings					—		(4,910)
Net income					—		14,355
Net increase in treasury stock					_		(52)
Gain on sales of treasury stock					_		61
Reversal of revaluation reserve for land					—		2
Net changes of items other than shareholders' equity	(502)	(6)	(2)	(1,149)	(1,660)	70	(1,589)
Total changes of items during the term	(502)	(6)	(2)	(1,149)	(1,660)	70	7,866
Balance at March 31, 2011	¥4,858	¥(6)	¥7,594	¥(3,473)	¥8,974	¥2,561	¥168,182

## Consolidated Statements of Cash Flows (Summary)

Solidated Statements of Cash Hows (Sammary)		Millions of yen
Account item Amount	Fiscal 2010	Fiscal 2009
Net cash provided by operating activities	¥ 33,780	¥ 46,418
Net cash used in investing activities	(23,763)	(28,377)
Net cash used in financing activities	(10,554)	(17,262)
Effect of exchange rate changes on cash and cash equivalents	(118)	(40)
Net increase in cash and cash equivalents	(655)	738
Cash and cash equivalents at the beginning of the year	6,815	6,077
Cash and cash equivalents at the end of the year	6,160	6,815

Millions of yen

## Site Reports 2011 Omi Plant

## **Omi Plant**

#### Profile

Address: 2209 Omi, Itoigawa, Niigata **Telephone:** +81-25-562-6105 **Employees:** 790 (as of March 31, 2011) Major products: Inorganic materials: Cement, special cement additives, calcium carbide, lime, calcium cyanamide and ALSEN (alumina fiber) Organic materials: Chloroprene rubber, DENKA POVAL and monosilane Pharmaceuticals: High molecular hyaluronan

Others: Eel farms

Operations: Since our establishment in 1921, we have maintained unique carbide chemical operations that exploit abundant in-house assets. These include Mount Kurohime, with its five billion metric tons of limestone reserves, and an in-house hydro-

power generation capacity of 180,000kW. Our broad product range includes calcium cyanamide, chloroprene rubber and cement. In recent years, we have diversified into inorganic fine chemicals and pharmaceuticals. We continue to develop our business to meet new and diverse challenges in chemicals.

#### **CSR** Policies

#### **General Manager's Policies**

Communication with local societies

gaining the trust of the local community.

Local disaster prevention activities

the perimeter fence.

Itoigawa area.

Working in unison to become a highly competitive main plant

- <Safety> We all wish to achieve a zero accident, zero disaster and zero occupational illness plant. Let's make the Omi Plant a cheerful and competitive workplace by complying with safety rules and practicing ho-ren-so (reporting, contacting and consultation).
- <Environment> Fully aware of our target to pursue lasting trust as an outstanding manufacturer, we will engage in RC activities

<Quality> Aiming to secure and improve quality from customers' point of view.

Fiscal 2010 Achievements and Fiscal 2011 Initiatives

In prompt response to local residents' requests, we issued reports covering

environment-related information while reflecting the results of analysis of this

mental and security initiatives on a regular basis to local communities and the

Local cleanup activities and environmental improvement

various organizations concerned about our business operations with the aim of

We proactively participate in cleanup activities in the local area, for example, the

Himekawa River Cleaning Mission, Tomigawa River Mouth Cleaning Mission, and

improvement activities in and around the plant site, we are currently refurbishing

Aiming to reinforce collaboration with local municipalities and to fully prepare the

Itoigawa City fire companies, and comprehensive emergency drills at the Plant.

ple and revitalizing local societies, "The Fureai Trio-Kyoko Yoshida and Her

disaster prevention system, we conduct fire drills on a routine basis, including com-

prehensive emergency drills at Himekawa Port, combined emergency drills with the

Guided by a spirit of welfare aimed at supporting mental health care for young peo-

Fellows" concerts were held at the Omi and Yamatogawa elementary schools as

well as at the Omi Cultural Center. DENKA supported those concerts held in the

others along the Omi river and roads around the Plant. As for environmental

information in the operation of the plant. In addition, we communicated our environ-

Guided by a spirit of welfare, "The Fureai Trio-Kyoko Yoshida and Her Fellows" held concerts at the Omi and Yamatogawa elementary schools as well as at the Omi Cultural Center that were aimed at supporting mental health care for voung people and revitalizing the local community. DENKA supported those concerts held in the Itoigawa area.

To deepen the understanding of the Omi Plant, we proactively invite local elementary schoolchildren for plant tours and participate in the Youngsters' Science Festival in Niigata.

#### Fiscal 2011 Initiatives

- We implemented monitoring training (including pointing and calling, greeting others. etc.) as the "Basics of Safety" for managers with the aim of disseminating activities aimed at improving communications. It is hoped that this will enable us to achieve zero occupational accidents, disasters and illness
- Following up on the achievements of fiscal 2009, we attained zero emissions in fiscal 2010. Aiming to further reduce harmful substance emissions, we will continue to strive to improve and maintain conditions of the local environment. In addition, we will continue to build trust through the careful consideration of dialoque with local communities.
- Adopting new technologies, we will strive to reduce the use of energy and resources, while making efforts on an individual basis to prevent global warming (for example, reducing the use of office paper and turning off lights).
- We will maintain product safety and enhance and stabilize production processes to meet customer needs.

#### **Environmental Performance**

Local youth development

ltem	Units	Fiscal 2007	Fiscal 2008	Fiscal 2009	Fiscal 2010	Fiscal 2011 targets
Energy consumption indicator unit	Compared with fiscal 1990	0.95	0.95	0.94	0.97	0.99
CO <sub>2</sub> emissions (from energy sources)	10,000 t	104	93	76	76	76
PRTR substance emissions	t	43	17	16	12	6
NOx emissions	t	4,220	3,870	3,030	2,750	2,500
SOx emissions	t	1,510	1,340	740	120	10
Soot and dust emissions	t	137	108	140	103	120
Water used	1,000m <sup>3</sup>	69,000	66,800	64,700	66,300	—
COD (BOD) discharges	t	1,600	964	1,100	1,570	920
Waste	t	79,900	82,800	74,700	84,400	77,000
Final waste disposal	t	1,470	2,330	240	160	137

Note: Totals of individual figures in this and other tables may not be exact because we rounded down fractions. The totals for this table match the figures in the Input and Output section on CSR Report 2011 p. 22 We registered under the Japan government's pilot emissions trading scheme in December 2008, so for CSR Report 2009 we calculated energy intensity and CO<sub>2</sub> emissions based on the coefficients standards of the volun-tary action plan of Nippon Keidanren, recalculating figures for previous reports, which we had based on the coefficients of the amended Law Concerning the Rational Use of Energy.



## Site Reports 2011 Omuta Plant

## **Omuta Plant**

#### Profile

Address: Shinkai-Machi 1, Omuta, Fukuoka Telephone: +81-944-52-1055 Employees: 616 (as of March 31, 2011) Major products: Inorganic materials: Carbide, calcium cyanamide, FIRELEN, alumina

cement (for refractories) and special cement additives Organic materials: DENKA BLACK

Electronic materials: Fused silica filler, silicon nitride, boron nitride, aluminum nitride, ceramic electronic circuit substrates, thermally conductive sheets and metal/ceramic compounds and fluorescent materials for LEDs

Operations: Established in 1916, the Omuta Plant is DENKA's oldest plant, and the first to manufacture carbide and calcium cyanamide. Since that time, as a production base of inorganic chemical products based on the proprietary electric furnace, high-temperature control and nitride technologies, the Omuta Plant has introduced a number of unique products. In recent years, we have entered the fine ceramics and electronic materials fields. Today, we contribute to the development of the electronics, automotive and numerous other industries.

## **CSR** Policies

#### **General Manager's Policies**

Addressing objectives to achieve targets stipulated in the CS13 plan, the Omuta Plant has stepped up its efforts to further develop the plant and contribute to society while promoting the improvement and development as a manufacturing plant for electronics products.

## **Environmental, Safety and Quality Policies**

#### (1) Maintaining Safety, Security and Health

Based on initiatives undertaken as a team to instill knowledge of the basics of safety in employees, we reinforced our commitment to a safety-oriented work environment with zero disasters or accidents, while promoting the development of a cheerful and vibrant workplace by invigorating communications. (2) Further Pursuing RC Activities

Through the entire production process, from raw materials procurement, manufacturing and storage to distribution, usage and disposal as well as in our R&D activities, each employee will address objectives to improve the global environment and contribute to society, including local communities.

## (3) Reinforcing On-Site Capabilities—Better Customer Satisfaction

Promoting quality improvement activities encompassing the "advancement of technologies to improve quality" by product and "raising awareness of employees engaged in manufacturing," we will secure stable production underpinned by consistent quality and enhanced yields to achieve better customer satisfaction.

## Fiscal 2010 Achievements and Fiscal 2011 Initiatives

#### Communication with the local community

The Omuta Plant employees participate in the Omuta Daijayama Festival in summer, while carrying out volunteer activities, such as blood donation and cleaning in tandem with local community





Omuta Daijavavama Festival

Environmental Darfey

Chemistry class for children

Environmental Performance								
Item	Units	Fiscal 2007	Fiscal 2008	Fiscal 2009	Fiscal 2010	Fiscal 2011 targets		
Energy consumption indicator unit	Compared with fiscal 1990	0.91	0.92	0.92	0.91	0.89		
CO <sub>2</sub> emissions (from energy sources)	10,000 t	12	11	9	11	11		
PRTR substance emissions	t	8	6	6	17	6		
NOx emissions	t	1,160	770	1,000	1,120	1,120		
SOx emissions	t	2	1	2	1	1		
Soot and dust emissions	t	4	5	3	3	4		
Water used	1,000m <sup>3</sup>	1,300	1,308	1,190	1,310	—		
COD (BOD) discharges	t	1	1	1	1	1		
Waste	t	8,982	9,345	6,861	8,670	7,000		
Final waste disposal	t	1,190	420	133	71	60		

Note: Totals of individual figures in this and other tables may not be exact because we rounded down fractions. The totals for this table match the figures in the Input and Output section on CSR Report 2011 p. 22 We registered under the Japan government's pilot emissions trading scheme in December 2008, so for CSR Report 2009 we calculated energy intensity and CO<sub>2</sub> emissions based on the coefficients standards of the volun-tary action plan of Nippon Keidanren, recalculating figures for previous reports, which we had based on the coefficients of the amended Law Concerning the Rational Use of Energy.



Executive Officer General Manager of Omi Plant



General Manager of Omuta Plant

organizations biannually in spring and autumn. In addition, we invite people in neighboring communities to take plant tours and hold chemistry classes for local children to facilitate understanding of our plant operations and products.

#### **Fiscal 2011 Initiatives**

- We will continue to cut environmental burdens, mainly industrial waste, and strive to achieve zero emissions in 2011 for the second consecutive year.
- We will further improve and develop the Omuta Plant to be an "open plant" as a production base for electronic products.

#### Site Reports 2011 Chiba Plant

## **Chiba Plant**

#### Profile

Address: 6, Goi-Minamikaigan, Ichihara, Chiba Telephone: +81-436-26-3200 Bibai Subplant: 1-1 Higashi-Gojo-kita, 10-chome, Bibai, Hokkaido Telephone: +81-126-62-1444

**Employees:** 463 (as of March 31, 2011) Major products: Organic materials: Styrene monomer, polystyrene,\* ABS resin, transparent resins, heat resistance resins, CLEAREN styrene-butadiene block copolymer, vinyl acetate monomer and DENKA ER \* Product of an affiliated company Plastic products: Food packaging, construction materials and vinyl tape Operations: This facility is one of Japan's top styrene monomer plants, and is reinforcing

such styrene operations as polystyrene and ABS resins. While reinforcing petrochemical-

related businesses, it also focuses on such functional plastic products as transparent plastic and CLEAREN DENKA ER and plastic processed products.

#### **CSR** Policies

#### **General Manager's Policies**

Under the DENKA100 management plan, which sets out goals to be achieved by 2015-the Company's 100th anniversary-we are simultaneously promoting CHIBA50 activities to commemorate the Chiba Plant's 50th anniversary. Under the latter initiative, we aim to become a plant that always creates value.

- 1. Attaining zero accidents through continuing efforts aimed at ensuring safe and stable operations (workplace communications, safety measures for individuals and equipment, promotion of security activities)
- 2. Reviewing, studying and developing new fundamental businesses for the next 50 years
- 3. Reinforcing our organizational foundation and passing on technologies to nurture young engineers through human resource development and the operation of techno schools
- 4. Advancing production technologies by reinforcing on-site capabilities and stabilizing guality
- 5. Pursuing CS13-based plant activities "strengthening, restructuring and reorganizing of existing businesses"
- 6. Consider corporate social responsibility (CSR)-legal compliance, environment consciousness and product safety)

#### Environmental, Safety, and Quality Policies

<Environment> We will consider the environment in all processes, from product development, manufacturing and distribution to usage, final consumption and disposal. We will build an environmental management system.

<Safetv> We want all plant workers to recognize the importance of maintaining a safe and healthy workplace. We aim to achieve a healthy, safe and cheerful manufacturing plant that fully recognizes and implements necessary security management systems as a license holder for highpressure gas handling, boiler operation and first-class pressure vessel operation while complying with relevant laws and regulations. We will achieve zero accidents through continuing system improvement for security management as well as safety and health management, both of which are essential to a healthy, safe and cheerful workplace, while implementing safe and stable operations.

<Quality> We will strive to secure and enhance product quality to gain the trust of customers by consistently offering satisfying products.

#### Fiscal 2010 Achievements and Fiscal 2011 Initiatives

#### Security and Disaster Prevention

We applied for the renewal of the licensing of a safety inspection expert for the highpressure gas plant and were recertified as an "appropriate" license holder. As a host company of the marine disaster prevention workshop offered by the Minami Koshi Bay Ship Safety Association, we held a joint workshop with local companies focusing on measures against marine accidents that included a tour to observe oil barriers extended from a ship. During the period under review, we received a commendation from the Japan Petrochemical Industry Association, and a person of merit award for safe operations from the High Pressure Gas Safety Institute of Chiba Prefecture.

#### Occupational Safety

As the Chair of the Safety Expert Committee of the Goi Disaster Prevention Countermeasures Council, we promoted safety activities with other member companies. held mental health care, ectures for managers and provided guidance counseling by indus-trial physicians. Furthermore, we held safety classes and an in-house forklift handling training seminar

#### Community Engagement

As a member of the Environmental Conservation Association of Chiba Prefecture, we conducted environmental awareness-raising activities at the Eco Fair Ichihara. During Environmental Month as well as a plant tour for local elementary school students, cleaned up the stretch of National Route 16 that runs in front of the plant and operated a stall at the Goi Rinkai Festival, deepening exchanges with local residents. We also issued a

Environmental Performance	
---------------------------	--

Item	Units	Fiscal 2007	Fiscal 2008	Fiscal 2009	Fiscal 2010	Fiscal 2011 targets
Energy consumption indicator unit	Compared with fiscal 1990	0.85	0.93	0.85	0.87	0.86
CO <sub>2</sub> emissions (from energy sources)	10,000 t	510	370	440	430	481
PRTR substance emissions	t	153	120	109	86	71
NOx emissions	t	508	355	436	444	444
SOx emissions	t	209	76	116	129	88
Soot and dust emissions	t	8	3	5	5	6
Water used	1,000m <sup>3</sup>	9,730	9,690	9,700	9,700	_
COD (BOD) discharges	t	24	22	17	23	20
Waste	t	21,997	15,412	17,431	18,300	18,000
Final waste disposal	t	211	124	98	40	64

Note: Totals of individual figures in this and other tables may not be exact because we rounded down fractions. The totals for this table match the figures in the Input and Output section on CSR Report 2011 p. 22. We registered under the Japan government's pilot emissions trading scheme in December 2008, so for CSR Report 2009 we calculated energy intensity and CO<sub>2</sub> emissions based on the coefficients standards of the volun-tary action plan of Nippon Keidanren, recalculating figures for previous reports, which we had based on the coefficients of the amended Law Concerning the Rational Use of Energy.



general invitation during the Eighth Regional Dialogue meeting in the Chiba district to any-

Traffic Safety: As a member of the Ichihara Area Safe Driving Management Association, we

instructed employees on issues related to traffic safety and participated in a seatbelt campaign during Traffic Safety Week. We also cooperated in the development of technology

for measuring buovant particle substances (PM2.5/10) at soot and smoke-emitting facili

We will promote CHIBA50 activities to commemorate the Chiba Plant's 50th anniversary

ISO 14001 and OHSAS 18001 systems. Together with this, in our role as an industrial

We will also continue to proactively improve our security management, ISO 9001.

complex we will work in close liaison with government bodies, other companies, councils

business operations fully aware of the fact that all of our production activities carry "social

and local residents to promote security and disaster prevention activities. Fulfilling roles

obligations and responsibilities as a good corporate citizen, we will faithfully engage in

one wishing to attend a plant tour, and approximately 80 people, including academic

experts, university students and local representatives, signed up.

Social Contributions

scal 2011 Initiative

responsibility

ties and in boiler exhaust gas.

while engaging in CSR activities.

Shotaro Fujii

Senior Executive Officer General Manager of Chiba Plant

Address: 1135 Nakamura, Shibukawa, Gunma **Telephone:** +81- 279-25-2109

**Employees:** 437 (as of March 31, 2011)

Major products: Electronic materials : Thermally conductive materials, HARDLOC and HARDLOC OP/UV adhesives, DENKA HITTPLATE high thermal-conductivity aluminum substrates, DENKA LaB6 CATHODE electron and ion emitters, ELEGRIP dicing tape, back grinding tape, THERMALLY CONDUCTIVE SHEETS, ELETHERMAL Operations: Since 1951, the Shibukawa Plant has developed as a production base for vinyl chloride resins. In 1976, the plant began manufacturing HARDLOC structural adhesive and, in 1984, changed its business domain as it entered into full-scale participation in the electronic materials business. Currently, the plant focuses on the production of electronics-related products, encompassing electronic circuit substrates, thermal materials, emitters, structural adhesives and semiconductor processing-related products, contributing DENKA's growth as a key organic electronic materials production base.

#### **CSR** Policies

#### **General Manager's Policies**

Aiming to become a plant that meets the needs of the electronic materials business we are further accelerating our efforts. Basic Policies

- 1. Undertake safety activities focused on risk management
- Zero occupational injuries, zero distribution accidents in the safety environment, and thorough compliance 2 Smooth start of CS13
- Reinforcing on-site capability by improving technology to pursue better quality
- 3. Raising awareness of quality, safety and cost as well as developing human resources at the Shibukawa techno school

#### Environmental, Safety and Quality Policies

<Environment> We will continue to reduce environmental burdens by conserving resources and energy, cutting CO2 emissions and waste generation, maintaining zero emissions and reinforcing the management of chemical substances. Together with this, we will aim to operate in harmony with the community through the interaction. <Safetv> With the keywords "eliminating human error" and "enhancing each individual's risk prediction capability," we will promote

nating human error at each section, applying risk prediction and using the pointing-and-calling method before operations. <Quality> Continuing to secure and improve product quality, we will offer reliable products that satisfy customers on a timely basis.

#### Fiscal 2010 Achievements and Fiscal 2011 Initiatives

#### Initiatives in waste emissions

In fiscal 2009, we achieved an emissions ratio of 0.93%, attaining zero emissions. In fiscal 2010, the figure was improved to 0.61%.

#### Educational session involving simulating danger and training for the safe operation of forklifts

With the aim of eliminating possible serious accidents, such as employees being caught in rollers as well as forklift-related accidents, we conducted an educational session that involved in hands-on training in July 2010 and training sessions for the safe operations of forklifts in May 2010 and January 2011.

#### Experimental science class

As part of exchanges with the local community, we invited approximately 70 local elementary school students and their parents to hold experimental science classes in July 2010 and March 2011. Starting with a plant tour to intro-

#### **Environmental Performance**

Item	Units	Fiscal 2007	Fiscal 2008	Fiscal 2009	Fiscal 2010	Fiscal 2011 targets
Energy consumption indicator unit	Compared with fiscal 1990	1.00	1.08	0.85	0.74	0.70
CO <sub>2</sub> emissions (from energy sources)	10,000 t	1	1	1	1	1
PRTR substance emissions	t	5	4	5	6	5
NOx emissions	t	9	8	6	10	9
SOx emissions	t	25	23	16	10	25
Soot and dust emissions	t	1	1	1	0	1
Water used	1,000m <sup>3</sup>	2,700	3,430	2,520	2,580	_
COD (BOD) discharges	t	3	4	3	3	3
Waste	t	552	453	503	479	335
Final waste disposal	t	13	6	5	3	3

Note: Totals of individual figures in this and other tables may not be exact because we rounded down fractions. The totals for this table match the figures in the Input and Output section on CSR Report 2011 p. 22 We registered under the Japan government's pilot emissions trading scheme in December 2008, so for CSR Report 2009 we calculated energy intensity and CO<sub>2</sub> emissions based on the coefficients standards of the volun-tary action plan of Nippon Keidanren, recalculating figures for previous reports, which we had based on the coefficients of the amended Law Concerning the Rational Use of Energy.

Shibukawa Plant

Profile

#### Site Reports 2011 Shibukawa Plant



disaster prevention and security risk reduction by further reviewing hazard source countermeasures, with a focus on elimi-



Kazuyuki Koyama Executive Officer. General Manager of Shibukawa Plant

duce electronic microscopes and air shower the event had a number of classes where the children could make their own plastic bottle or super ball, a very bouncy rubber ball. Also, DENKA's TEMPLOC was demonstrated, bringing an exciting time for participants to experience the world of chemistry. The experimental science class is planned to be held in fiscal 2011 and beyond on a regular basis.

#### Fiscal 2011 Initiatives

As part of our environmental activities, we will strive to reduce environmental burdens by conserving resources and energy while cutting  $\mbox{CO}_2$  and chemical substance emissions. For safety activities, we will aim to achieve zero occupational injuries and zero distribution accidents.

In addition, we aim to deepen community understanding of the Company and contribute to society by participating in local events, holding experimental science classes and engaging other activities, such as hydrangea planting and drainage ditch cleaning

### Site Reports 2011 Ofuna Plant

## **Ofuna Plant**

#### Profile

Address: 13-1, Dai 2-chome, Kamakura, Kanagawa **Telephone:** +81- 467-45-1110 **Employees:** 225 (as of March 31, 2011) Major products: Resins and plastic products: Including synthetic fibers for wigs, packaging materials, and functional films

Operations: Our product lineup is the fruit of advanced capabilities drawing on ejection molding, adhesion coating and film production technologies. We are DENKA's prime production unit for plastic products. We develop and manufacture such offerings as TOYOKALON synthetic fiber for top global wig and hairpiece brands, packaging tapes that include hand-cuttable and printing tapes, laterally stretched Calalyan Y polyethylene film and polyvinylidene fluoride DX Film.

#### **CSR** Policies

## **General Manager's Policies**

- Philosophy: We aim to contribute to and prosper with the community of Kamakura, which abounds with cultural, historical and environmental legacies.
- Goals: We will contribute to the community and corporate progress by making the environment, safety and quality our top priorities.
  - 1. Reduce our environmental footprint by conserving energy and cutting waste
  - 2. Comprehensively manage safety relating to raw materials, products, logistics and disposal and continue to engage with the community

#### Environmental, Safety, and Quality Policies

<Environment> • Comply with laws and ordinances and enhance environmental awareness

- Act in line with medium-term environmental plan and improve performance
- Contribute to the community
- Deploy full-fledged initiatives that ensure underlying safety <Safetv>
- Create a vibrant and healthy workplace
- <Quality> · Continue to improve raw materials, processes and product management to pursue and maintain high guality

#### Fiscal 2010 Achievements and Fiscal 2011 Initiatives

•We implemented comprehensive emergency drills to ensure preparedness in case of fire



We conducted complete cleanups of the plant and nearby streets on the third Wednesday of each month.

We deepened our interactions with local residents mainly by making the square in front of the plant's main gate available for a festival held in July by a nearby neighborhood association. We also set up food stands and an employee band performed during this event.

Based on the philosophy, "We aim to contribute to and prosper with the

community of Kamakura, which abounds with cultural, historical and

environmental legacies," we promote dialogue and interaction with the

we aim to reduce environmental burdens by curbing waste generation

through better yields and by improving our emission ratio based on

#### **Fiscal 2011 Initiatives**

efforts to separate waste

comprehensive emergency drill local community. Particularly in terms of our activities to reduce waste. ember 22)

•We held a Safety Announcement Meeting to raise safety consciousness. •We implemented special training for operating cranes, leading to the building of a structure for "cultivating safety-conscious employees who do not get hurt or cause others to be harmed."

#### **Environmental Performance**

Item	Units	Fiscal 2007	Fiscal 2008	Fiscal 2009	Fiscal 2010	Fiscal 2011 targets
Energy consumption indicator unit	Compared with fiscal 2002	0.81	0.80	0.94	0.79	0.80
CO <sub>2</sub> emissions (from energy sources)	10,000 t	1	1	1	1	1
PRTR substance emissions	t	1	1	1	1	1
NOx emissions	t	4	2	1	2	2
SOx emissions	t	0	0	0	0	0
Soot and dust emissions	t	0	0	0	0	0
Water used	1,000m <sup>3</sup>	71	70	87	86	_
COD (BOD) discharges	t	0	0	0	0	0
Waste	t	194	211	188	199	184
Final waste disposal	+	13	22	22	30	18

Note: Totals of individual figures in this and other tables may not be exact because we rounded down fractions. The totals for this table match the figures in the Input and Output section on CSR Report 2011 p. 22 We registered under the Japan government's pilot emissions trading scheme in December 2008, so for CSR Report 2009 we calculated energy intensity and CO<sub>2</sub> emissions based on the coefficients standards of the volun-tary action plan of Nippon Keidanren, recalculating figures for previous reports, which we had based on the coefficients of the amended Law Concerning the Rational Use of Energy.

Tatsuhiro Aoyagi Senior Executive Office General Manager of Ofuna Plant

Security and Disaster Preparedness We hold evening on-call drills for

those with the rank of assistant man ager or above while working to raise employee awareness about proper conduct during emergencies



#### An evening on-call dril Safety Education

Given that the plant undertakes numerous types of roller-related operations, we provide wide-ranging safety education for operators. We continued to invite outside instructors to train employees in how to conduct safety verification routines that involve pointing and calling while providing hands-on training

related to getting caught in rollers. In addition, we conducted training for managers to provide pointers regarding the 5Ss (seiri, seiton, seiso seiketsu and shitsuke, or sorting, straightening, sweeping, standardiz ing and self-discipline).



An intensive, hands-on roller-related training session

#### **Environmental Performance**

Item	Units	Fiscal 2007	Fiscal 2008	Fiscal 2009	Fiscal 2010	Fiscal 2011 targets
Energy consumption indicator unit	Compared with fiscal 2005	0.99	1.02	0.99	0.97	0.98
CO <sub>2</sub> emissions (from energy sources)	10,000 t	1	1	1	1	1
PRTR substance emissions	t	0	0	0	0	0
NOx emissions	t	0.3	0	0	0	0
SOx emissions	t	0	0	0	0	0
Soot and dust emissions	t	0	0	0	0	0
Water used	1,000m <sup>3</sup>	320	326	358	412	—
COD (BOD) discharges	t	0	0	0	0	0
Waste	t	0.2	0.2	0.2	0.2	0.2
Final waste disposal	t	28	0	12	0	55

Note: Totals of individual figures in this and other tables may not be exact because we rounded down fractions. The totals for this table match the figures in the Input and Output section on CSR Report 2011 p. 22. We registered under the Japan government's pilot emissions trading scheme in December 2008, so for CSR Report 2009 we calculated energy intensity and CO<sub>2</sub> emissions based on the coefficients standards of the volun-tary action plan of Nippon Keidanren, recalculating figures for previous reports, which we had based on the coefficients of the amended Law Concerning the Rational Use of Energy.

Reference

Site Reports 2011 Isesaki Plant

## Isesaki Plant

#### Profile

Address: Isesaki Plant: 245, Nishigawara, Naganuma-cho, Isesaki, Gunma Telephone: +81-270-32-1251

Isesaki Plant (Ota): 3015 Serada-cho, Ota, Gunma Telephone: +81-276-52-4111

Employees: 268 (as of March 31, 2011)

Major products: Electronic materials: DENKA THERMOSHEET EC, DENKA Thermo Film ALS and other carrier tape, trays and cover tape for semiconductor and electronic components processes

Functional materials and plastics: Styrene Sheet, CLEAREN sheet and stretch film, and Denka DX film used in solar cell module back sheets

Operations: This plant manufactures sheets and films from polystyrene, vinyl chloride and other raw materials. The Ota facility has the greatest production capacity in the Orient for these products. We supply food and electronic packaging materials that meet stringent requirements for performance and quality management, and are endeavoring to bolster our processing technologies while developing value-added offerings.

#### **CSR** Policies

#### **General Manager's Policies**

- 1. Ensure safety and health
- 2. Reach CS13 objectives

<Safetv> 3. Improve customer satisfaction

4. Promote the creation of environment-

<Quality> friendly products

Fiscal 2010 Achievements and Fiscal 2011 Initiatives

needs





#### Environmental, Safety, and Quality Policies

<Environment> Conserve energy and resources, ensure distribution safety and harmonious coexistence with local communities Undertake risk assessments and ensure that no accidents or disasters occur

Improve quality and swiftly and accurately meet customer



Toshiharu Kano Executive Officer General Manager of Isesaki Plant

#### Social Contributions

As part of our social contribution efforts, all employees routinely engage in cleanup activities in city

parks and along the roads in the plant's immediate vicinity. In addition, we established a monthly "beautification day" initiative with the aim of making areas within the plant more attractive. All of these initiatives help keep the plant and adjacent areas clean.



Employees cleaning up a sidewalk near the plant

#### Fiscal 2011 Initiatives

We will continue to promote environmental preservation measures while placing the highest possible priority on complying with relevant laws. In particular, we have positioned the following as important initiatives: the reduction of waste; conservation of energy and resources; and ensuring distribution safety primarily by improving processing technology. Moreover, we will contribute to the local community through ongoing beautification activities in areas surrounding the plant. Regarding health and safety, we are creating a positive and comfortable workplace mainly by promoting measures to prevent laborand equipment-related accidents, lifestyle diseases, heat stroke and mental problems

## **Central Research Institute**

#### Profile

Address: 5-1, Asahi-cho 3-chome, Machida, Tokyo Telephone: +81-42-721-3611 Employees: 94 (as of March 31, 2011)

Center Overview: The Central Research Institute began operating at its current site after DENKA relocated its Meguro Research Center from its Meguro-ku, Tokyo, location in 1962. The facility has created numerous basic technologies for inorganic and organic chemicals, petrochemicals and plastic products as the spearhead of DENKA's product innovation. Serving as a focal point for DENKA's R&D efforts, the institute will concentrate on R&D initiatives based on medium- to long-term themes in order to augment its research capabilities related to large, next-generation products and basic technologies.



#### **CSR** Policies

#### **General Manager's Policies**

- In line with our motto, "the newly reformed Central Research Institute promotes R&D to create future-oriented, next-generation products," we are:
- 1. Encouraging coordination among divisions and plants while clarifying the Central Research Institute's functions
- 2. Promoting new product development
- 3. Generating new themes to meet next-generation markets
- 4. Undertaking environmental and safety initiatives

#### Environmental, Safety, and Quality Policies

Based on Companywide safety and health plans, the Central Research Institute works to continuously improve Plan-Do-Check-Act (PDCA) cycles while expanding its involvement in volunteer activities that conform to the circumstances of individual workplaces. Such activities are intended to maintain the institute's environmental preservation and safety and health initiatives. The main activities of each department involve promoting the development of positive workplaces that are accident, disaster and illness free. These efforts are carried out in accordance with administrative action plans that follow the Fundamental Policies listed below.

- 1. Fundamental policies for responsible care activities: • Encourage initiatives to counter global
- 2. Fundamental safety and health policies: · Eliminate such safety-related accidents as
- 3. Fundamental product quality-related policy
- explosions and fires · Improve quality at the new product devel-• Eradicate labor-related accidents opment stage
- Prevent occupational diseases
- Promote efforts to contribute to society Prevent environmental accidents

warming

## Fiscal 2010 Achievements and Fiscal 2011 Initiatives

Safety and health activities are carried out regularly based on the motto: "maintaining an honest commitment to common sense." Accordingly, we steadily undertake safety activities that include maintaining environmental management systems (EMS), effectively raising safety awareness, regularly conducting fire drills involving our in-house firefighters and jointly holding comprehensive fire drills with the Machida Fire Department. As a result, the Central Research Institute won the Special Safety Award on May 27, 2010, at the 34th Grand Prix Safety Awards, sponsored by the Japan Chemical Industry Association (JCIA) and Japan Responsible Care Council (JRCC). In fiscal 2010, the institute acquired a model promotion workplace designation from the Tokyo Labour Bureau and continued to proactively implement risk management to prevent accidents.

We aggressively promote interactions with the local community and social activities. Accordingly, the Central Research Institute hosted tours for approximately 80 third graders from Machida Dai-San Elementary



120 third graders from Machida Dai-Yon Elementary School in October 22, 2010. These educational field trips mainly included an up-close look at the testing facilities and

School on June 17, 2010 and

Students from the Machida Dai-Yon Elementary School in Tokyo taking a tour of the Central Research Institute

the opportunity to observe objects through electron microscopes, activities that inspired the students to ask many unique questions.

#### Fiscal 2011 Initiatives

Regarding our ongoing safety and health activities, we will work to avoid all accidents and disasters, mainly by steadily maintaining our EMS as well as developing occupational health and safety management systems

In fiscal 2011, we plan to rebuild the Central Research Institute's main facility in anticipation of our centennial. Featuring more spacious exhibition spaces, preset tour guide routes, presentation rooms and other facilities, the new and more open main facility will encourage greater communication with the local community. Under the concept of being environmentally friendly, the new facility will be installed with an array of energy-efficient equipment to reduce CO<sub>2</sub> emissions. Such



generators as well as LED lighting and air conditioners equipped with motion sensors n addition to such recycling systems as toilets that use ainwater

devices include solar power

The Central Research Institute being presented with the Special Safety Award for maintaining operations free of accidents that required lost work days for 17 years (May 27, 2010

Reference

Site Reports 2011 Overseas

## Denka Singapore Pte., Ltd.

## Merbau Plant

#### Profile

Employees: 31 (as of March 31, 2011)

Operations: The Merbau Plant was DENKA's first production facility in Singapore. We established this plant in 1980 to participate in the Singapore Petrochemicals Complex project. The complex is located on Jurong Island, where we manufacture DENKA BLACK. We began operating our 50% press facility in 1984, upgrading it in 1997. We set up a granulation facility in 2002. Owing to its superior liquid absorption, electrical and thermal conductivity properties and high purity, DENKA BLACK is used worldwide in dry manganese and lithium-ion batteries, power cables and semiconductor packaging materials.

#### **CSR** Policies

#### **General Manager's Policies**

"Cohesion as one lively team" Safety: Eradicate careless accidents and maintain safety Quality: Ensure quality management by improving manufacturing processes Production: Maintain optimal production Maintenance: Improve maintenance activities Distribution: Undertake optimal inventory management by ensuring optimal distribution within the Jurong Island

#### Fiscal 2010 Achievements and Fiscal 2011 Initiatives

In fiscal 2010, we engaged in various activities that included voluntarily producing a safety guidance video and holding safety-related competitions. At a safety conference, we held a forklift driving safety competition.

In fiscal 2011, regular repairs of the Singapore Petrochemicals Complex (housing eight companies) will be undertaken. As a member of this complex, the plant will work to comply with safety and environmental standards through coordinated efforts with the other member companies. To this end, the Merbau Plant is planning to engage in a largescale construction project.

#### Seraya Plant

#### Profile

Employees: 63 (as of March 31, 2011)

Operations: The Seraya Plant commenced operations to produce general-purpose polystyrene in 1998. The plant was expanded in 2006 to manufacture TX Polymer methyl methacrylate styrene copolymer resin and CLEAREN styrene-butadiene block copolymer. Currently the plant's three manufacturing facilities have an annual production capacity of 300,000 metric tons. We are constructing a facility to produce imidized polymers (IP), which is scheduled to commence operations in 2012. Consequently, the Seraya Plant is expanding into the DENKA Group's largest petrochemical and polymer production base.

#### **CSR** Policies

#### General Manager's Policies

- 1. Maintain zero-accident record
- 2. Maintain compliance
- 3. Achieve a better working environment
- 4. Educate employees and strengthen our organization

#### Fiscal 2010 Achievements and Fiscal 2011 Initiatives

- We acquired OSHAS18001 certification.
- We completely shifted from paper to plastic bags

#### Fiscal 2011 Initiatives

- We will provide training related to the chemical plant's operations
- We will promote and investigate energy- and resource-reduction measures based on improved manufacturing processes.
- We will acquire ISO 28000 certification.



Senior Executive Office General Manager of Central Research Institute

Denka Singapore Private Limited Hong Leong Building, 16 Raffles Quay #18-03, Singapore 048581 TEL:65-6224-1305











Sadao Kawamura Deputy Managing Director. General Manager of Serava Plant

Site Reports 2011 Overseas

**DENKA Advantech Pte., Ltd.** 

## **Tuas Plant**

#### Profile

#### Employees: 60 (as of March 31, 2011)

Operations: The Tuas Plant, established in 1991 in Singapore, produces fused silica filler, a material mainly used as a sealant for semiconductor packaging. Currently, the Tuas Plant's focus is on spherical fused silica filler to accommodate advances in semiconductor packaging as well as the trend toward more environmentally friendly products, and it is striving to enhance quality and reinforce production. Working in cooperation with the Omuta Plant, the Plant supplies products mainly to China and Southeast Asia.



16 Raffles Quay #18-03, Hong Leong Building, Singapore 048581

Denka Advantech Private Limited

TEL: 65-6224-1305

Toshiyuki Kageyama

General Manager of Tuas Plant

#### **CSR** Policies

#### **General Manager's Policies**

- 1. Going back to basics, we will secure plant security and employee safety
- 2. Promoting energy and resource conservation, we will reduce environmental burdens
- 3. We will reduce customer complaints and pursue better customer satisfaction by controlling risks
- 4. We will develop a supply system that meets market demands and technological trends
- 5. We will make cost reduction efforts by improving production processes and technologies

#### Fiscal 2010 Achievements and Fiscal 2011 Initiatives

- <Safety> During fiscal 2010, we strived to raise employee awareness of safety by making an in-house safety video, conducting fire drills and in-plant patrols and proactively participating in external seminars. Safety education is being carried out using the abovementioned safety video, KYT sheets and external instructors, and we are promoting 5S activities.
- <Environment> We saved electricity by enhancing productivity and shifting to energy-saving lighting. In addition, we recycled flexible containers and wooden pallets and began to partially reuse plastic pallets. In fiscal 2011, we will continue to reduce environmental burdens mainly by conserving electricity and recycling packaging materials.
- <Quality> We conducted quality risk assessments and improved production processes mainly to address the issue of foreign matter contaminating products. We will further promote measures to reduce risks.

## Denka Advanced Materials (Suzhou) Co., Ltd.

Address: Unit 9B Modern Industrial Square, No. 333 Xingpu Road, Suzhou Industrial Park, Suzhou China Telephone: +86-512-6287-1088

#### **Profile**

#### Employees: 58 (as of March 31, 2011)

Operations: In January 2006, this company was established as DENKA's first production and sales subsidiary in China since World War II. The company manufactures carrier tape for electronic packaging and micro-slit products, while responding to domestic users' demand for higher quality.



#### **CSR** Policies

#### **General Manager's Policies**

- 1. Bolster safety initiatives to maintain our zero-accident record.
- 2. Improve production techniques and quality management, reduce the number of complaints about quality
- 3. Maintain the workplace environment and ensure strict compliance.
- 4. Undertake education and drills, continue to work to upgrade workplaces

## Fiscal 2010 Achievements and Fiscal 2011 Initiatives

#### Security and disaster prevention

- To raise employee awareness of disaster prevention, we invited an external instructor to hold an educational seminar regarding prevention and countermeasures against fire
- Regarding disaster prevention measures at the Plant, we identified danger spots needing improvement and inspecting firefighting equipment.

#### Occupational safety

- Each day, before work begins, employees gather to recite an inspiring slogan.
- . More than once a month, management-level and above personnel conduct safety patrols to identify danger spots needing improvement. Environment
- Aiming to reduce waste generation, we constantly strive to improve manufacturing yields.

#### Fiscal 2011 Initiatives

In fiscal 2011, we will continue to enforce disaster prevention measures, secure occupational safety and reduce waste generation while striving to improve the capabilities of all employees. To achieve this goal, we will step up our focus on compliance with environment-related laws and regulations.

Reference

Site Reports 2011 Major Affiliates

## **Major Affiliates**

## **DENKA** Polymer Co., Ltd.

# **Profile**

Address Head Office: 12-8 Kiba, 5-chome, Koto-ku, Tokyo Telephone: +81-3-5245-3641 Plants: 3 in Chiba Prefecture (Sakura, Goi, Katori) Employees: 367 full-time and 147 part-time (as of April 1, 2011) Major Products: OPS products, PSP food trays, food containers, SOFLIGHT products, packaging wrap and agricultural packs

#### Fiscal 2010 Achievements and Fiscal 2011 Initiatives

At the start of fiscal 2010, we established an environmental policy that aims to reduce energy use, environmentally harmful substance  $(\text{CO}_2)$  emissions and waste generation. At the same time, we are developing and reinforcing the supply of environmentally friendly, safe and reliable products that promote further cutbacks in packaging weight and reduce customers' generation of CO<sub>2</sub>.

Our efforts resulted in an average 8.3% reduction in product weight, mainly PSP and OPS, compared with fiscal 2004. Owing to our energy conservation efforts, we recorded an overall 1.6% improvement in energy consumption intensify at all business sitesparticularly at three plants-compared with the fiscal 2009 level.

With regard to the Koto-ku-based recycling business in which we have been participating since fiscal 2009, we joined a commission investigating expanding the applications of recycled polystyrene foam pellets, improved the quality of recycled pellets, developed processing methods for non-white pellets and ingots made from colored trays, supported the expansion of the use of recycled pellet for building materials in Japan, improved the

## **DENKA SEIKEN Co., Ltd.**

## Profile

Address

Head Office: 4-2 Kayaba-cho, 3-chome, Nihonbashi, Chuo-ku, Tokyo Telephone: +81-3-3669-9091

Plants: Gosen City, Niigata (Niigata Plant, Kagamida Plant) Employees: 550 (as of April 1, 2011)

Major Products: Influenza vaccines, bacteriological diagnostic reagents, virological diagnostic reagents, clinical chemistry diagnostic reagents, immunological diagnostic reagents, point of care testing (POCT) products

#### Fiscal 2010 Achievements and Fiscal 2011 Initiatives

In the area of safety and health activities, we conducted risk assessments to prevent major accidents. We also invited external instructors to provide mental health as well as safety and health education for plant general managers and managers to ensure a more comfortable workplace.

On the environmental front, we are promoting activities to reduce environmental burdens and preserve the environment based to deliver our opinions. on the ISO 14001 environmental management system. As part of our community engagement, we donated a bus, an important Fiscal 2011 Initiatives means of transportation for local people, to Gosen City as part of We will continue to focus on safety, health and environment preserthe commemoration of our 60th anniversary. In addition, we cleaned vation activities to prevent major accidents and disasters. Together irrigation channels around the Niigata Plant. Furthermore, we invited with this, we will strive to further deepen communications with local neighborhood association representatives to join a plant tour and communities to become a company that society can rely on. meeting held to facilitate the exchange of opinions and thus foster more friendly ties.



Deputy Director General Manager

#### http://denkapolymer.co.jp





environment inside the recycling facilities and stepped up the employment of handicapped people.

#### Fiscal 2011 Initiatives

Following up on our efforts in fiscal 2010, we will continue to proactively promote environmental improvement activities. As part of such efforts, we will bolster the development and supply of environmentally friendly, safe and reliable products, while reducing resource use and environmental burdens by developing new products and upgrading existing products to lower packaging weight. Amid the expected trend toward deteriorating operational efficiency due to the Japanese government's request to save electricity, we will strive to further conserve energy by carrying out an appropriate production plan and efficient production activities. In cooperation with the Koto-ku recycling business, we will develop new applications (pointof-purchase panels and other building materials) and prepare for facility improvement, including of equipment for cleaning collected trays.



In terms of social contribution, we participated in the Niitsu Labor Standards Association as a member of the board, and strived to disseminate and promote health and welfare activities among local participating companies. We also continue to participate in the Gosen Gender Equality Council, an organization that investigates and deliberates on the establishment of ordinances of Gosen City,

#### Site Reports 2011 Major Affiliates

## **CRK Corporation**

#### Profile

Address: 306-banchi, Koyagi-cho, Takasaki, Gunma Telephone: +81-27-362-7510 Employees: 65 (as of April 1, 2011)

Major Products: Rubber compounds, industrial rubber products, thermal expansion fire-resistant rubber products, butyl adhesive tape, water swelling leakage stop rubber tape and quakeproof manhole joints

#### Fiscal 2010 Achievements and Fiscal 2011 Initiatives

- · Continued to reduce waste generation and landfill waste
- Reinforced the separation of waste rubber, while promoting thermal recycling in fiscal 2010. Accordingly, the amount of landfill waste dropped 70% from the previous fiscal year.
- · Continued to improve the safety level at work, we reviewed the basics of our safety operations and raised the awareness of all employees

Haruo Kimura President



http://www.crk.co.jp

#### Fiscal 2011 Initiatives

- We will promote safe operations based on risk assessments
- We will hold skills improvement training seminars for site supervisors
- We will reduce CO<sub>2</sub> emissions by shifting to LPG for fuel upon the renewal of boilers
- We will lower the amount of electric power we draw from the grid from 3,000V to 400V and thus improve safety
- We will conserve energy during summer and pursue a more comfortable work environment

## Hinode Kagaku Kogyo

#### **Profile**

Address: 660 Aza Kuratani, Maizuru, Kyoto Telephone: +81-773-75-5760 Employees: 44 (as of April 1, 2011)

Major Products: YORIN (fused magnesium phosphate), TORETARO (fused silicate phosphate fertilizer), mixed fertilizer, chemical fertilizer

## Fiscal 2010 Achievements and Fiscal 2011 Initiatives

Aiming to contribute to society and facilitate employees' self-fulfillment through fertilizer production



Presentation about risk assessment results Setting up a smoking room

DENKA Azumin Co., Ltd.







President

- Trial practice of risk assessment
- · Commenced the establishment of separate smoking areas as a means to improve the work environment
- Upgrading the quality management system by adopting the ISO concept
- Promoting the 5Ss in our Good Company Program Initiatives
- Proactively participating in in-house and local cleaning activities

#### Fiscal 2011 Initiatives

tilizer production

- Reviewing checkup procedure of laws and regulations

#### http://www.denka-azumin.co.jp

#### Profile

Address: 118, 5 Chiwari, Nimaibashi, Hanamaki, Iwate Telephone: +81-198-26-2131 Employees: 26 (as of April 1, 2011) Major Products: Azumin (magnesium humate fertilizer)

## **CSR** Initiatives

Major Activities

- We maintained our zero-accident record
- We worked to safeguard the environment · We built relationships of trust with local residents

# Fiscal 2010 Achievements and Fiscal 2011 Initiatives

#### Maintained a zero-accident record

- Due to the occurrence of a no-shutdown disaster, our record of accident-free days stands at 1,943. Under the leadership of the Risk Prediction and Near-Accident Committee as well as the Safety Patrol Committee, we took safety measures. Currently, we are aiming to achieve 1,000 consecutive accident-free days.
- One of our employees received an award from the Hanamaki City Association for the Safety of Hazardous Materials for the excellent handling of hazardous materials.
- Environmental activities
- We conducted energy conservation activities that included turning off all lights during work breaks, ensuring that no one could forget to turn the lights off and maintaining room temperature at an appropriate level when using air conditioners or heaters.
- We were able to gain a full understanding of the Plant's energy consumption by using an energy monitoring system. Based on the acquired data, we will reduce the energy use.





## Building relationships of trust with local communities

President

- We conducted a plant visit and information exchange with the Nimaibashi Committee for Pollution Prevention Measures
- On the assumption of nitric acid leakage, we carried out a fire drill with a local fire station. Inviting neighboring companies and local residents to come to view the drill, we were able to deepen their understanding of our safety activities.
- Environmental preservation activities based on the Hanamaki City Pollution Control Agreement
- . We reported that all air, water and noise pollution as well as vibration from our facility were within the limits of an accord with Hanamaki City.

#### Fiscal 2011 Initiatives

- · Maintaining a zero-accident record: We will make across-the-board efforts to conduct safe operations
- Passing on production techniques to younger generations: We will strive to eliminate operational troubles by enhancing on-the-job trainings
- Streamlining in-plant logistics: In tandem with subcontractors, we will promote appropriate cargo control and legal compliance

Aiming to contribute to society and facilitate employees' self-fulfillment through fer-

- Dissemination of risk assessment
- · Preparing for the acquisition of the KES environmental management system certificate