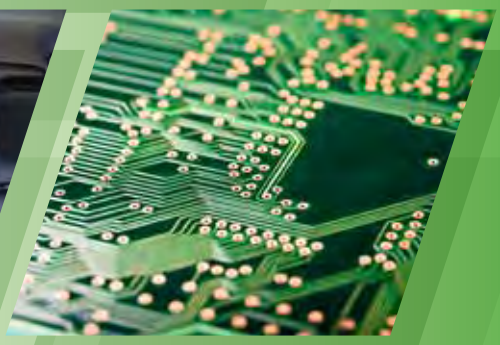
Separate volume

NHK SPRING REPORT 2021 Environmental Data

Manufacturing Derived from Springs.



NHK

NHK SPRING CO.,LTD.

Progress in environmental activities

	Progress by NHK Spring	Progress by domestic Group companies	Trends in society
2001	Feb.: 5th Revised Environmental Voluntary Action Plan Apr.: Isehara Plant gained ISO 14001 certification (all plants now certified) Jun.: 7th Global Environment Forum held	May: Horikiri gained ISO 14001 certification Jun.: NHK Seating Mizushima gained ISO 14001 certification Aug.: Yokohama Kiko (now NHK Spring Production Company) gained ISO 14001 certification Nov.: Topura gained ISO 14001 certification	Ministry of the Environment established Electric Appliance Recycling Law enacted
2002	Jan.: Recycling Center completed at Yokohama Office Feb.: 6th Revised Environmental Voluntary Action Plan May: 8th Global Environment Forum held Jun.: Received 10th Yokohama Environmental Conservation Work Award Dec.: Yokohama Office received Fiscal 2002 Kanagawa Global Environment Award	Mar.: NHK Teleflex Corporation (now NHK MEC Corporation) gained ISO 14001 certification Apr.: Tokuhatsu gained ISO 14001 certification Oct.: NHK Sales Company gained ISO 14001 certification Oct.: NHK Spring Mutsumi-kai Technical Committee Global Environmental Issues Subcommittee launched	Soil Contamination Countermeasures Law announced Automobile Recycling Law announced Japan ratified the Kyoto Protocol
2003	Feb.: 7th Revised Environmental Voluntary Action Plan Mar.: Zero emissions achieved at Yokohama Office Jun.: 9th Global Environment Forum held	May: NHK Spring Mutsumi-kai Technical Committee Global Environmental Issues Subcommittee meeting Jul.: NHK Transport gained ISO 14001 certification Oct.: Sumihatsu gained ISO 14001 certification Oct.: Uniflex (now NHK FLEX Company) gained ISO 14001 certification Nov.: Nippon Shaft gained ISO 14001 certification	Automobile Recycling Law enacted Soil Contamination Countermeasures Law enacted Amended Law Concerning the Rational Use of Energy enacted
2004	Feb.: 8th Revised Environmental Voluntary Action Plan Jun.: 10th Global Environment Forum held Dec.: Atsugi Plant received Fiscal 2004 Kanagawa Global Environment Award	Jul.: NHK Spring Mutsumi-kai Technical Committee Global Environmental Issues Subcommittee meeting Sep.: Tohoku Nippatsu gained ISO 14001 certification	Amended Air Pollution Control Law announced
2005	Jan.: Yokohama Office received Commendation at PRTR Awards Feb.: 9th Revised Environmental Voluntary Action Plan May: 11th Global Environment Forum held	Mar.: SNIC gained ISO 14001 certification Mar.: Faurecia-NHK Kyushu gained ISO 14001 certification	Amended Automobile Recycling Law enacted Kyoto Protocol came into force
2006	Feb.: 10th Revised Environmental Voluntary Action Plan Jun.: 12th Global Environment Forum held Dec.: Isehara Plant received Fiscal 2006 Kanagawa Global Environment Award	Feb.: NHK Precision gained ISO 14001 certification Mar.: Ayase Seimitsu gained ISO 14001 certification	Amended Law Concerning the Rational Use of Energy enacted Amended Law Concerning the Promotion of Measures to Cope with Global Warming enacted
2007	Jun.: 13th Global Environment Forum held	May: Ites gained ISO 14001 certification May: Sindai gained ISO 14001 certification	Amended Law Concerning the Recovery and Destruction of Fluorocarbons enacted
2008	Jun.: 11th Revised Environmental Voluntary Action Plan Jun.: 14th Global Environment Forum held	Jun.: Group Company Environmental Liaison Committee announced	G8 Toyako Summit (Hokkaido)
2009	Feb.: Installed a solar electric generator panel at Yokohama Office Jun.: 15th Global Environment Forum held		G8 L'Aquila Summit (Italy)
2010	Jun.: 16th Global Environment Forum held	Feb.: NHK Transport gained Green Management certification Mar.: Domestic Group companies achieved zero emissions	Tenth Conference of the Parties to the Convention on Biological Diversity (COP10) Implementation of Amended Soil Contamination Countermeasures Act
2011	Jun.: 17th Global Environment Forum held		Implementation of Amended Water Pollution Control Act (Storage Facilities)
2012	Jun.: 18th Global Environment Forum held Nov.: Yokohama Office recognized as an Excellent office in 3R (Let's Reduce, Reuse and Recycle!) by Yokohama City		Implementation of Amended Water Pollution Control Act (Facilities using Hazardous Substances) First commitment period under Kyoto Agreement ended
2013	Feb.: Yokohama Office won the Energy Saving Award of Kanagawa Global Environment Prize Nov.: 24th NHK Spring Forum held (merged with the 19th Global Environmental Forum) Nov.: Yokohama Office received Yokohama City recognition for excellence in the 3Rs (Let's Reduce, Reuse and Recycle!) (two years in a row)	Dec.: Tokuhatsu Sanda Plant completed and solar generation panels installed on plant roof	Start of the Kyoto Protocol second commitment period (2013 - 2020)
2014	Apr.: Starting Clean-up Activity of NHK Spring Mitsuzawa Football Stadium by Volunteers Oct.: Yokohama Office received energy efficiency field visit from the Ministry of Economy, Trade and Industry Nov.: 25th Global Environment Forum Nov.: Yokohama Office received Yokohama City recognition for excellence in the 3Rs (Let's Reduce, Reuse and Recycle!) (three years in a row)	Nov.: NHK Spring Production Company received climate change field survey based on the Kanagawa Prefecture ordinance Dec.: Tokuhatsu Sanda Plant received ISO 14001 certification (expanded authentication)	United Nations Climate Change Summit held Publication of the IPCC Fifth Assessment Report Act on Rational Use and Proper Management of Fluorocarbons enacted
2015	Oct.: 26th Global Environment Forum held Nov.: Komagane Plant (Industrial Machinery & Equipment) receiving on-site GHG countermeasure survey based on regulations of Nagano Prefecture Nov.: Yokohama Office received Yokohama City recognition for excellence in the 3Rs (Let's Reduce, Reuse and Recycle!) (four years in a row)	Jun.: Tohoku Nippatsu, Nippon Shaft and Sumihatsu recognized as S-Class energy conservation method service providers	United Nations Framework Convention on Climate Change (COP21) Adoption of Paris Agreement
2016	Nov.: 27th Global Environment Forum held Nov.: Yokohama Office received Yokohama City recognition for excellence in the 3Rs (Let's Reduce, Reuse and Recycle!) (five years in a row)	Jun.: Tohoku Nippatsu, Nippon Shaft and NHK Precision recognized as S-Class energy conservation method service providers	Minamata Convention on Mercury enacted The enactment of law to prevent mercury pollution Amendments to the Stockholm Convention on Persistent Organic Pollutants (POPs Convention)
2017	Aug.: NHK Spring Group started energy conservation diagnostics Nov.: 28th Global Environment Forum held Dec.: Yokohama Office received Yokohama City recognition for excellence in the 3Rs (Let's Reduce, Reuse and Recycle!) (six years in a row)	Jun.: Tohoku Nippatsu, Nippon Shaft, NHK Precision, and Topura recognized as S-Class energy conservation method service providers Sep.: NHK Spring Group started energy conservation diagnostics	Issuance of the Chemical Substances Control Law Chinese Waste Import Controls: Restricts imports of some solid wastes
2018	NHK Spring recognized as an S-Class energy conservation method service provider Nov.: 29th Global Environment Forum held Dec.: Yokohama Office received Yokohama City recognition for excellence in the 3R (Let's Reduce, Reuse and Recycle!) (seven years in a row)	Jun.: Tohoku Nippatsu, Nippon Shaft and NHK Precision recognized as S-Class energy conservation method service providers Oct.: Each NHK Spring plant that had acquired ISO 14001 certification has completed its update to the 2015 version of the standard	The 24th United Nations Framework Convention on Climate Change (COP24) was held The particulars (implementation policy) of the Paris Agreement were determined
2019	Jun.: The Yokohama Office received the Yokohama Global Warming Countermeasures Prize Sep.: NHK Spring Group implemented energy conservation diagnostics Nov.: 30th Global Environment Forum held Dec.: Yokohama Office received Yokohama City recognition for excellence in the 3Rs (Let's Reduce, Reuse and Recycle!) (eight years in a row)	Jun.: Tohoku Nippatsu, Nippon Shaft, NHK Precision, and Topura recognized as S-Class energy conservation method service providers	The 25th United Nations Framework Convention on Climate Change (COP25) was held Decision on market mechanisms for the Paris Agreement The United States officially notifies the United Nations of its withdrawal from the Paris Agreement The Japanese government formulates an action plan on countermeasures for ocean plastic waste
2020	Apr.: NHK Spring recognized as an S-Class energy conservation method service provider Dec.: Yokohama Office received Yokohama City recognition for excellence in the 3Rs (Let's Reduce, Reuse and Recycle!) (nine years in a row)	Jun.: Nippon Shaft recognized as S-Class energy conservation method service provider	Initial year of the Paris Agreement Fee charged for store shopping bags

Environmental education

We conduct a variety of environmental education and consciousness-raising activities to ensure that all our employees carry out their regular jobs with knowledge of the environment and a high level of awareness of the issues.

Environmental education

Raising the environmental consciousness of individual employees is important to carrying environmental work forward. Our Group has an excellent in-house training system to extend awareness of environmental issues, including a range of environmental education programs, training for internal environmental auditors, and encouragement to acquire external qualifications.

At NHK Spring, we offer different levels of education for all employees, as well as specialist training for staff with particular environmental responsibilities. General environmental education at different levels is included in our staff training program and is repeated with promotion. Specialist education is provided when staff begin new positions, and regular skill upgrading is also provided.

Furthermore, abstracts of relevant domestic environmental laws have been periodically distributed to Group companies since fiscal 2014 to share information.

● Contents of environmental education (FY2020 results)

Education at different levels		
Recipients	Content of training	
Training for new employees	Description of efforts by NHK Spring Group regarding global environmental issues, environmental management systems, and environmental laws, regulations and other requirements by stakeholders	
Training for new assistant managers		
Training for new senior staff		
Training for new executives		
Specialist education		
Recipients	Content of training	
Internal environmental auditors (based on ISO revision)	Training and education	Internal environmental auditor training and refresher courses
	Skills upgrading training	Environmental auditor workshops for lead auditors
Overseas secondees (expatriates)	Environmental management system, overseas environmental laws and regulations, NHK Spring Group environmental requirements, etc.	

Environment-related qualified persons

250 people
(including multiple qualifiers)

Internal environmental auditor training and refresher courses (environmental education, FY2019)
(Courses canceled during FY2020 due to the COVID-19 pandemic)

● Number of staff with environmental qualifications (as of May 2021)

Qualification	Classification		Numbers holding qualifications
Pollution prevention management	Atmosphere	Type 1	6
		Other	28
	Water quality	Type 1	7
		Other	30
	Noise		36
	Vibration		35
	Dioxins		1
Environmental management system auditor	Assistant auditor		1
Working environment measurement experts	Type 1	Dust	4
		Special chemicals	2
		Metals	1
		Organic solvents	3
	Type 2		5
Certified environmental measurers	Level-related		2
Specially controlled industrial waste managers			44
Qualified persons for energy management			32
Energy managers for Type 2 Designated Energy Management Factories			13
Total (including multiple qualifiers)			250

ISO 14001

As an organization, we are involved in protecting the environment, and we have gained ISO 14001 international certification for our environmental management systems.

NHK Spring certification status

We began preparations to acquire the ISO 14001 certification in 1996 and acquired the certification at our Yokohama spring plant in January 1997 before our competitors in the same industry. This was the beginning of acquiring the ISO 14001 at three plants every year until the final plant was certified in April 2001 to succeed in acquiring the certification at all of our 11 plants in Japan. Each NHK Spring plant that had acquired ISO 14001 certification has, as of October 2018, completed its update to ISO 14001 (2015). There are now 12 plants that have acquired certification including the Miyada Plant, which acquired certification in September 2021. We will continue our efforts to maintain this status in the future.

ISO 14001 certification
12 Plants (Japan)

Certification status of Group companies

●Domestic Group companies

All 18 of our Group companies that are members of the joint Safety and Environment Subcommittee of the Engineering Department of the NHK Spring Mutsumi-kai have acquired the ISO 14001. Each of our domestic Group companies that had acquired ISO 14001 certification has, as of October 2018, completed its update to ISO 14001 (2015). We will continue our efforts to maintain this status in the future.

●Overseas Group companies

We will also further the acquisition of the ISO 14001 certification at our overseas Group companies. As of fiscal 2020, we have succeeded in acquiring the certification at 16 overseas Group companies and will work to gradually acquire the certification for the rest of the overseas Group companies in the future.

ISO 14001 certified Group companies

18 companies (Japan),
16 companies (Overseas)

Dates NHK Spring acquired ISO 14001 certification

Divisions	Plants	Dates acquired
Suspension Spring Division	Yokohama Plant (Suspension Springs)	January 1997
	Shiga Plant	March 1998
Seating Division	Gunma Plant	March 1998
	Yokohama Plant (Seating)	May 1999
	Toyota Plant	March 1999
Precision Spring & Components Division	Ina Plant	June 1999
	Atsugi Plant	November 2000
DDS (Disk Drive Suspension) Division	Komagane Plant (DDS)	June 2000
Industrial Machinery & Equipment Division	Isehara Plant	April 2001
	Miyada Plant	September 2021
	Komagane Plant (Industrial Machinery & Equipment)	November 1998
	Yasu Plant	August 2000

Dates Group companies acquired certification

Region	Company name	Dates acquired
Domestic	NHK Sales Co., Ltd.	October 2002
	NHK Spring Production Company	August 2001
	Sumihatsu Co., Ltd.	October 2003
	Horikiri, Inc.	May 2001
	Tohoku Nippatsu Co., Ltd.	September 2004
	Ites Co., Ltd.	May 2007
	Faurecia-NHK Kyushu Co., Ltd.	March 2005
	Sindai Co., Ltd.	May 2007
	SNIC Co., Ltd.	March 2005
	NHK FLEX Co., Ltd.	October 2003
	Ayase Seimitsu Co., Ltd.	March 2006
	Tokuhatsu Co., Ltd.	April 2002
	NHK Precision Co., Ltd.	February 2006
	NHK MEC Corporation	March 2002
	Nippon Shaft Co., Ltd.	November 2003
	Topura Co., Ltd.	November 2001
	Yokohama Kiko Co., Ltd.	August 2001
	NHK Seating Mizushima Co., Ltd.	June 2001
North and South America	New Mather Metals, Inc.	July 2003
	NHK of America Suspension Components Inc.	January 2003
	NHK Seating of America Inc.	September 2004
	Rassini-NHK Autopeças Ltda.	May 2002
Asia	NHK Spring (Thailand) Co., Ltd.	June 2000
	NHK Precision (Thailand)	January 2005
	Autrans (Thailand) Co., Ltd.	May 2004
	NHK Manufacturing (Malaysia) SDN. BHD.	August 2001
	NHK-Uni Spring (Guangzhou) Co., Ltd.	March 2005
	NHK Spring Precision (Guangzhou) Co., Ltd.	January 2006
	NAT Peripheral Co., Ltd.	October 2005
	Uni Auto Parts Manufacture Co., Ltd.	March 2006
	NHK Spring India Ltd.	October 2003
	NSP	October 2014
	NACI	January 2010
Europe	Ibérica de Suspensiones, S.L.	December 2003

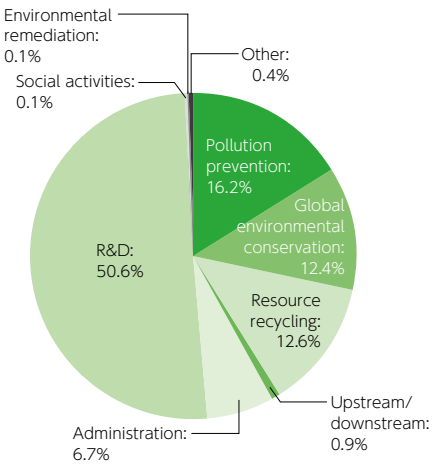
Environmental accounting

We identify the costs and effects of our environmental conservation activities in environmental accounting, and we use this in running the company.

Fiscal 2020 environmental accounts - classifications and results

We introduced environmental accounting in fiscal 2000 in accordance with the Environmental Accounting Guidelines (2005 edition) issued by the Ministry of the Environment while collecting data for the 9 categories listed in the table on the right.

Using the fixed standard we have set, we calculate our fiscal 2020 environmental expenditure at a total of JPY1,631.5 million. A breakdown can be seen below showing an increase in research and development costs due to electric vehicle parts development, together with an increase in resource recycling costs associated with proper treatment of waste containing PCB. Other costs were more or less in line with the previous year.



Fiscal 2020 - Cost of environmental conservation

(Units: JPY million/year)

Classification of costs	Main elements	Value* in FY2019	Value* in FY2020
①Pollution prevention	Maintenance of effluent treatment facilities and dust collectors, measurement and monitoring of air and water quality and noise, and other preventive measures	115.3	263.8
② Global environmental conservation	Proper management of fluorocarbons and other gas emissions, energy conservation measures, global warming prevention, etc.	220.9	202.8
③Resource recycling	Waste treatment, zero emissions measures, office recycling, PCB waste treatment, etc.	250.9	206.3
④ Upstream/ downstream	Limiting environmental burdens from our suppliers and customers associated with our own production activities (green purchasing, product recycling, reduced packaging, and so on)	11.1	14.0
⑤Administration	Waste manifest management, ISO 14001 maintenance and renewal inspections and ISO 14001 office personnel costs, reporting to the government, etc.	123.3	109.0
⑥R&D	Research to reduce environmental loads and development of products to contribute to reducing environmental loads	266.2	826.0
⑦Social activities	Social service activities (cleaning waterways and surroundings of plants), etc.	4.4	1.0
⑧ Environmental remediation	Remediating environmental damage to surroundings	0.0	2.0
⑨Other	Costs for environmental conservation other than the above (including costs for PCB waste management)	7.5	6.6
Total		999.6	1631.5

*Value: Totals of Environmental Investments and Environmental Conservation

Fiscal 2020 - Cost of environmental conservation
1,631.5 million yen

Classification and performance of fiscal 2020 investments

Fiscal 2020 results are shown in the table below.

Energy use and CO_2 emissions per unit both increased slightly from the previous year. By promoting the recycling and recovering resources from waste into usable resources, we have maintained waste landfill volumes at minimum levels since fiscal 2010.

However, in fiscal 2020, waste emissions increased around 0.6 tons from the previous year due to an increase in emissions by the Research and Development Department. Energy and water costs per unit increased as unit costs rose. We will continue to make improvements for cost-effective investments in the future.

Performance of fiscal 2020 investment effects

	Material effects*1			Economic effects*2			Assessment
	FY2019 actual	FY2020 actual	Effects	FY2019 actual	FY2020 actual	Effects	
Energy use per unit (GJ/¥ million)*3	10.23	10.25	0.02	–	–	–	△
CO_2 emissions per unit (ton CO_2/¥ million)*3	42.20	42.90	0.70	–	–	–	×
Wastes to landfill (tons/year)	2.60	3.20	0.60	–	–	–	×
Wastes recycled (tons/year)	22,445	22,536	91.0	–	–	–	○
Energy costs per unit (¥/¥ thousand)*3	–	–	–	15.3	14.7	△ 0.6	○
Gain on sales from recycling (¥ million)	–	–	–	393.0	520.0	127.0	○

*1 Material effects: Reduction in environmental pollutants, etc. *2 Economic effects: Energy savings and cost reduction on waste, etc. *3 Per unit output: Values to Sales

Managing and reducing pollutants

We strive to properly manage and reduce pollutants according to our own standards, and the law and rules of the organizations we belong to.

Pollutant Release and Transfer Register (PRTR) surveys

Since fiscal 1997, we have taken part in voluntary PRTR surveys organized by Nippon Keidanren (Japan Business Federation), in an effort to establish the amounts of pollutants that we handle, release and transfer.

We have been reporting data to the Ministry of Economy, Trade and Industry under the PRTR Law since June 2001. However, we have set up our own survey standards to quantify the use of chemical substances across all departments of the company.

Since fiscal 2005, our domestic Group companies have conducted the same voluntary PRTR surveys in an effort to reduce the release of pollutants.

The table below lists each of the substances of which we handle a total of at least 0.1 tons per year.

From fiscal 2011, we continued to manage chemical substances so that we did not use substances of very high concern under European REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) regulations, and also those that we expected to be regulated in future.

Results of fiscal 2020 survey of pollutant releases and transfers (April 1, 2020 - March 31, 2021)

▪ NHK Spring

(Unit: tons /year)

PRTR Law Cabinet Order No.	Name	Types of designated chemical compounds	Amount used yearly	Amount emitted						Amount moved	
				Atmosphere	Water quality	Soil	Buried on-site			Sewag system	Waste (subcont.)
							Stable	Managed	Isolated		
1	Zinc compounds (water-soluble)	Class I	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
20	2-aminoethanol	Class I	2.7	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	Linear alkylbenzenesulfonate	Class I	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
53	Ethyl benzene	Class I	4.8	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3
71	Ferric chloride	Class I	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
80	Xylene	Class I	18.6	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
82	Silver and its water-soluble compounds	Class I	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
296	1,2,4-trimethylbenzene	Class I	1.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
297	1,3,5-trimethylbenzene	Class I	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
298	Toluene diisocyanate (TDI)	Class I	639.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	Toluene	Class I	74.4	43.6	0.0	0.0	0.0	0.0	0.0	0.0	5.4
302	Naphthalene	Class I	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
309	Nickel compounds	Special Class I	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
384	1-Bromopropane	Class I	10.6	5.3	0.0	0.0	0.0	0.0	0.0	0.0	4.9
400	Benzene	Class I	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
410	Polyoxyethylene nonylphenyl ether	Class I	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0
411	Formaldehyde	Class I	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
412	Manganese and its compounds	Class I	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
448	Methylenebis (4.1-phenylene) = Diisocyanate (MDI)	Class I	111.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
455	Morpholine	Class I	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total volume of PRTR substances			876.6	74.9	0.0	0.0	0.0	0.0	0.0	0.4	12.9

▪ Domestic Group companies

(Unit: tons /year)

PRTR Law Cabinet Order No.	Name	Types of designated chemical compounds	Amount used yearly	Amount emitted						Amount moved	
				Atmosphere	Water quality	Soil	Buried on-site			Sewag system	Waste (subcont.)
							Stable	Managed	Isolated		
1	Zinc compounds (water-soluble)	Class I	10.7	0.0	0.0	0.0	0.0	0.0	0.0	0.1	6.3
20	2-aminoethanol	Class I	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
53	Ethyl benzene	Class I	26.4	25.3	0.0	0.0	0.0	0.0	0.0	0.8	0.4
66	1,2-Epoxybutane	Class I	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
69	2,3-Epoxypropyl phenyl ether	Class I	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80	Xylene	Class I	57.5	50.7	0.0	0.0	0.0	0.0	0.0	1.7	0.8
87	Chromium and trivalent chromium compounds	Class I	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132	Cobalt and cobalt compounds	Class I	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185	Dichloropentafluoropropane (HCFC225)	Class I	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
232	N,N-dimethylformamide	Class I	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
296	1,2,4-trimethylbenzene	Class I	3.5	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
297	1,3,5-trimethylbenzene	Class I	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	Toluene	Class I	97.3	96.4	0.0	0.0	0.0	0.0	0.0	0.3	0.6
302	Naphthalene	Class I	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
304	Lead and lead compounds	Class I	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
309	Nickel compounds	Special Class I	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
321	Vanadium compounds	Class I	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
354	Bis (n-butyl) phthalate	Class I	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
384	1-Bromopropane	Class I	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
392	n-hexane	Class I	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
412	Manganese and its compounds	Class I	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
448	Methylenebis (4.1-phenylene) = Diisocyanate (MDI)	Class I	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total volume of PRTR substances			201.8	177.6	0.0	0.0	0.0	0.0	0.0	2.9	9.9

*Industrial wastes include waste materials that have value or no value and that can be recycled. Excludes materials sold. *Volume moved when discharged into public sewage system.

Head office

Research & Development Division, Engineering Division

Location: Kanazawa-ku, Yokohama
Business areas and products: Planning, management, R&D
Commenced operations: February 1991

Overview of our activities
The Head Office is located in the Yokohama Office with the Suspension Spring and Seating Divisions.
We engage in business activities that take into consideration the communities around each production division, the head office, and each of our plants. We take care to respond dutifully in cooperation with each municipal, especially in terms of waste water, air, noise, and waste.

Environmental outlook and policies

We will develop new products and new equipment, and conduct various environmental educations that save energy and use renewable energy as a function of the head office. In addition, we are leading the environmental activities of the entire Group, including coordinating good practices within the company.

Fiscal 2020 and 2021 initiatives

■ Various risk-management efforts

In line with providing support to respond to various types of risks, a new requirement of ISO 14001 (2015), we will conduct voluntary audits to check compliance with environmental laws and regulations and operations at environmental facilities using check sheets. We will continue to improve items identified as inadequate and strive to address a wider range of risks.

■ Managing chemicals

Chemical substances used at plants in Japan (including those of Group companies) are tabulated every year according to our own standards and disclosed in the NHK Spring Report. We are also promoting risk assessment of chemical substances and 5S activities so that our operators engage in safe operations within our plants. We manage the chemical substances used in our products appropriately in accordance with the Green Procurement Guidelines.

■ Reducing industrial waste

In fiscal 2020, we promoted waste separation and recycling and achieved the recycling target set by the Head Office. In fiscal 2021, we will strive to maintain these results (resource recycling rate of 100%) and will move forward with a higher quality of recycling in order to reduce waste volume.

● Atmosphere (Regulated values: Air Pollution Control Law, Yokohama Guidelines)

Divisions	Plants		Regulated value	Results
NOx	Hot water boiler	A	0.041	0.004
		B	0.025	0.014
		C	0.025	0.010
	Cooling water generator	A	0.029	0.006
		B	0.018	0.005
		C	0.024	0.002
Dust	Hot water boiler	A	0.050	<0.002
		B	0.050	<0.002
		C	0.050	<0.003
	Cooling water generator	A	0.050	<0.004
		B	0.050	<0.003
		C	0.050	<0.003

NOx units: m^3N/h Dust units: g/m^3N

● Water quality: Main Building (Regulated values: Yokohama sewage regulations)

Item	Regulated value	Results		
		Maximum	Minimum	Average
Oil	5～9	7.6	6.9	–
Fe	5	1.7	<0.5	0.9
Zn	3	<0.3	<0.3	<0.3
Ni	1	<0.1	<0.1	<0.1
T-Cr	1	<0.1	<0.1	<0.1
Fluorine	2	<0.2	<0.1	<0.2
Phenols	8	<0.8	<0.8	<0.8
NH_4	0.5	0.07	<0.05	<0.05
NH_4	380	2.3	<0.3	0.80

Units: mg/ℓ

● Water quality: R&D Building (Regulated values: Yokohama sewage regulations

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5～9	7.6	6.6	–
Oil	5	1.4	<0.5	0.8
Fe	3	1.6	<0.3	<0.3
Zn	1	0.4	<0.1	<0.1
Ni	1	<0.1	<0.1	<0.1
T-Cr	2	<0.2	<0.2	<0.2
Cu	1	<0.1	<0.1	<0.1
NH_4	380	27	<0.3	7.6

Units: mg/ℓ

Suspension Spring Division

Yokohama Plant (Suspension Springs)

Location: Kanazawa-ku, Yokohama
Products: Coil springs, Leaf springs, and metal bellows
Commenced operations: November 1987

Hiroto Tsuji
Plant Manager

Environmental outlook and policies

At this plant, our slogan is "global environment-friendly spring manufacturing." The improvements we work toward include reducing CO_2 emissions and industrial waste.

As all of our personnel participate in work on continual improvement of our environmental management systems, we will work to help conserve the global environment and prevent global warming while building the environment that we hand down to the next generation.

Fiscal 2020 and 2021 initiatives

■ Reduction in CO_2 emissions (absolute value)

We are taking environmental management action as part of TPM activities so that the employees at our spring Yokohama Plant can all pull together, aiming high in environmental management through daily activities.

■ Recycling and reducing waste

We prevent generating industrial waste or convert it into valuable commodities through changes in business partners.

We are repeatedly educating our employees on waste separation, etc. through our environmental promotion staff.

■ Environmental conservation activities

During fiscal 2020, we worked to conserve water resources through effective reuse of rainwater, while also working to reduce industrial waste volume in our efforts to achieve environmentally friendly spring manufacturing.

■ Other

Since we are expecting a heat wave during the summer of fiscal 2021, we will promote measures to prevent heat exhaustion to improve working conditions, including the start of full-scale operation of a new line.

● Atmosphere (Regulated values: Air Pollution Control Law, Yokohama Guidelines)

Substance	Equipment		Regulated value	Results
NOx	Metal reheating furnace	A	0.128	0.039
		B	0.110	0.023
		C	0.212	0.066
		D	0.169	0.094
		E	0.119	0.030
	Metal tempering furnace	A	0.202	0.013
		B	0.123	0.004
		C	0.104	0.033
		D	0.085	0.020
		E	0.059	0.005
Dust	Metal reheating furnace	A	0.1	<0.002
		B	0.1	0.005
		C	0.1	<0.003
		D	0.1	<0.003
		E	0.1	<0.003
	Metal tempering furnace	A	0.1	<0.004
		B	0.1	0.005
		C	0.1	0.007
		D	0.1	0.004
		E	0.1	<0.003

NOx units: m^3N/h Dust units: g/m^3N

● Water quality (Regulated values: Yokohama sewage regulations)

Item		Regulated value	Results		
			Maximum	Minimum	Average
pH		5～9	7.7	6.8	–
Oil	Animal and vegetable	30	1.8	<0.5	1.1
	Mineral	5	0.5	<0.5	0.5
Fe		3	<0.3	<0.3	<0.3
Zn		1	0.1	<0.1	<0.1
Ni		1	0.4	<0.1	0.2
Mn		1	0.1	<0.1	<0.1
Fluorine		8	1.7	<0.8	<0.8
Boron		10	<1.0	<1.0	<1.0
Total nitrogen		240	47	25	34
Total phosphorus		32	2.7	1.5	2.0
NH_4		380	37	17	24

Units: mg/ℓ

Suspension Spring Division

Shiga Plant

Location: Koka, Shiga
Products: Coil springs, stabilizer bars, and torsion bars
Commenced operations: November 1973

Akitoshi Hamamoto
Plant Manager

Environmental outlook and policies

Environmental conservation is one of the six core elements of STPM (Strategy for Total Power Management) conducted at our plants, and we take practical measures to allow all our people to engage in it. We are working hard towards making environmentally-friendly springs.

Fiscal 2020 and 2021 initiatives

■ Reduction in CO_2 emissions (absolute value)

In fiscal 2020, we continued to conduct activities, including air leak inspections and shutting down control panel power breakers, as well as activities to reduce electricity consumption, such as the introduction of calendar-based timers to prevent forgetting to shut down compressors. In fiscal 2021, we will continue to implement energy-saving activities and further reduce CO_2 emissions by optimizing our control system through compressor replacement.

■ Recycling and reducing waste

As for waste reduction and recycling activities, we are enforcing waste separation through sorting patrols and reducing water-containing sludge by changing the transfer route of water tank sediment.

In fiscal 2021, we are washing and cutting old work clothes in order to make cloths using recycled materials.

■ Environmental conservation activities

Moreover, given the vital importance of waste management to maintain the quality of waste water at our plant that relies on Lake Biwa, we have been working to strengthen management of wastewater treatment facilities and continually improving them as we strive toward global environmental conservation.

In fiscal 2021, managers and supervisors are carrying out cleanup activities around the perimeter of the plant to keep both the inside and outside of the plant clean.

●Atmosphere (Regulated values: Air Pollution Control Law)

Substance	Equipment		Regulated value	Results
NOx	Metal reheating furnace	A	180	74
		B	180	32
		C	180	36
		D	180	52
		E	180	57
Dust	Metal reheating furnace	A	0.25	<0.008
		B	0.20	<0.004
		C	0.20	<0.003
		D	0.20	<0.005
		E	0.20	<0.032

NOx units: ppm Dust units: g/m³N

●Water quality (Regulated values: Minakuchicho Agreement)

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	6～8.5	7.7	7.0	—
BOD	30	3.0	<1.0	1.8
COD	30	4.0	<1.0	2.1
SS	70	9.0	<1.0	2.9
Oil	5	1.6	<0.5	0.8
Total nitrogen	12*	11.5	1.2	5.8
Total phosphorus	1.2*	0.6	<0.1	0.2
Fluorine	8*	<0.8	<0.8	<0.8
Boron	10*	<1.0	<1.0	<1.0
Zn	1*	0.3	<0.1	0.1

Units: mg/ℓ *Shiga prefectural regulations

Seating Division

Gunma Plant

(Ojima area)
Location: Ota, Gunma
Products: Automotive seats
Commenced operations: December 1986

(Ota area)
Ota, Gunma
Automotive interior products
July 1969

Junichi Oka
Plant Manager

Environmental outlook and policies

At this plant, we engage in production activities that unify the entire process of making automotive seats and automotive interior parts that are friendly to people and the environment, from development and design to manufacturing and shipment. In this way, we help the development of automotive society. We are aware of having been given the mission of handing down to the next generation "an abundant, beautiful Earth." In implementing safe, people-friendly production with consideration for environmental conservation, we promote volunteer and clean-up activities that are rooted in the local community.

Fiscal 2020 and 2021 initiatives

■ Reduction in CO_2 emissions (absolute value)

In fiscal 2020, we reduced annual CO_2 emissions by approximately 44.6 t-CO_2 (101,000 kwh) by replacing one high-efficiency compressor and switching over to LED lighting in our offices and development building.

■ Recycling and reducing waste

The plant has maintained a 100% recycling rate by converting waste into valuable resources. We will continue to focus on activities to reduce the amount of waste in fiscal 2021.

■ Environmental conservation activities

We will continue our community-based activities by participating in cleanups around the plant and community cleanup events.

■ Other

In fiscal 2021, we are planning to replace air conditioners and constant temperature/humidity test chambers with highly-efficient equipment. In addition, we will continue energy-saving activities such as reducing boiler steam volumes.

●Atmosphere: Ojima area (Voluntary values for unregulated equipment)

Substance	Equipment	Regulated value	Results
NOx	Generator	950	180
Dust	Generator	0.1	0.03

NOx units: ppm Dust units: g/m³N

●Water quality: Ojima area (Regulated values: Agreement with Ojima)

Item		Regulated value	Results		
			Maximum	Minimum	Average
pH		6～8	7.3	6.4	—
BOD		10	9.0	<1.0	2.6
SS		10	3.0	<1.0	1.0
Oil	Animal and vegetable	3	1.8	<0.3	0.6
	Mineral	3	0.7	<0.3	0.4

Units: mg/ℓ

●Water quality: Ota area (Voluntary regulatory values)

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5.8～8.6	8.0	6.6	—
BOD	40	4.0	1.0	2.0
COD	40	8.0	<1.0	4.0
SS	50	3.0	<1.0	1.5
Oil	5	3.4	<0.5	0.9

Units: mg/ℓ

Seating Division

Yokohama Plant (Seating)

Location: Kanazawa-ku, Yokohama
Products: Automotive seats and interior products
Commenced operations: April 1990

Yoshitaka Sasaki
Plant Manager

Environmental outlook and policies

We will obtain an accurate understanding of the effects this factory's operational activities exert on the global environment, specify environmental goals, and manage progress as we make continual improvements in environmental performance. We will pursue the potential of resource conservation, recycling and environmental impact reduction by comprehensively promoting activities based on NHK's own concept of elimination, reduction and change while helping to prevent global warming. In this endeavor, we will work to reduce CO_2 emissions volume, help stop environmental pollution and environmental conservation.

Fiscal 2020 and 2021 initiatives

■ Reduction in CO_2 emissions (absolute value)

Steam supply generation using cogeneration gas engines has been discontinued since February 2016. Also, air conditioning systems have been converted from fan coil-based systems to electric air conditioners in stages. In fiscal 2020, we succeeded in reducing the use of municipal gas for air conditioning by 99.5% compared to the amount used in fiscal 2016. We were also able to completely stop using refrigeration equipment and pumps for supplying cold and hot water. From fiscal 2021 onward, we are planning to increase the number of multi-circuit power meters and reduce the main pressure of compressors in order to more accurately grasp the distribution of electricity use.

■ Recycling and reducing waste

Due to the enormous amount of waste from packaging materials used for products procured overseas, we are considering switching from wooden pallets to corrugated cardboard pallets in order to reduce the volume of Miramat and convert it into valuable resources.

■ Environmental conservation activities

We have been replacing equipment that uses CFC R22 and will continue to replace remaining equipment that uses that refrigerant as needed.

■ Other

We are considering adopting solar power generation facilities at the plant.

●Atmosphere (Regulated values: Air Pollution Control Law, Yokohama Guidelines)

Substance	Equipment	Regulated value	Results
NOx	Boiler	0.064	0.017
Dust	Boiler	0.05	<0.003

NOx units: m^3N/h Dust units: g/m^3N

●Water quality (Regulated values: Yokohama sewage regulations)

Item		Regulated value	Results		
			Maximum	Minimum	Average
pH		5～9	7.5	6.5	—
Oil	Animal and vegetable	30	26.9	<0.5	3.9
	Mineral	5	0.5	<0.5	<0.5

Units: mg/ℓ

Toyota Plant

Location: Toyota, Aichi
Products: Automotive seats and interior products
Commenced operations: June 1961

Tsuyoshi Furukawa
Plant Manager

Environmental outlook and policies

Our plant performs unified design, manufacturing and shipment of finished automotive seating products, frames and component parts. In consideration of our ideal for environmental impact, we are working to achieve lower energy consumption and to reduce CO_2 emissions in addition to considering a form of plant management which focuses on carbon neutrality. While responding flexibly to changes in the external environment and performing manufacturing with state-of-the-art technologies and automation, we will contribute to society through continued promotion of our Environmental Voluntary Action Plan.

Fiscal 2020 and 2021 initiatives

■ Reduction in CO_2 emissions (absolute value)

In fiscal 2020, we replaced aging air conditioners, reviewed controlling the number of compressors used, and repaired air leaks, reducing compressor power consumption by 11% compared to fiscal 2019.
In fiscal 2021, we will replace aging equipment, create a medium-term plan to achieve carbon neutrality by 2050, and investigate and verify the effects of renewable energy and other measures.

■ Recycling and reducing waste

In consideration of a review of our waste disposal contractor with the idea of converting waste to valuable resources, we are thoroughly separating waste materials and maintaining a 100% recycling rate.

■ Environmental conservation activities

We are making further efforts to preserve and protect the local environment through our daily energy-saving activities, cleanups around the plant, and flower planting campaigns.

■ Other

By switching to water-based paints, we were able to reduce the amount of chemical substances used by 59% compared to fiscal 2019.

●Water quality (Regulated values: Sewage Law)

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5～9	7.8	6.8	—
BOD	600	19.0	4.0	9.2
COD	600	54	9.0	26.4
SS	600	16	4.0	7.0
Oil	5	2.7	<0.5	1.6
Zn	2	0.4	<0.2	<0.2
Cu	3	<0.3	<0.3	<0.3

Units: mg/ℓ

Precision Spring & Components Division

Atsugi Plant

Location: Aikawa-machi, Aiko-gun, Kanagawa
Products: Thin leaf springs and precision stamped products
Commenced operations: November 1970

Yasuhiro Shinkai
Plant Manager

Environmental outlook and policies

At this plant, we produce highly efficient drive train parts for electric vehicles that are friendly to the earth. Furthermore, we engage actively in information exchange with external organizations such as the Council for Waste Countermeasures in the Atsugi Region as we respond to rapid changes in the environment protection activities and comply with laws and ordinances.

Fiscal 2020 and 2021 initiatives

■ Reduction in CO_2 emissions (absolute value)

The plant has introduced an electricity monitoring system for demand management. The information obtained from the power monitoring system is transmitted to the plant in a timely manner to reduce power consumption.

In addition, through small group-based activities, the entire plant is working toward production and air-conditioning equipment based energy savings from a familiar perspective. We will continue to strive to be an environmentally-friendly plant.

■ Recycling and reducing waste

Since fiscal 2017, we have been actively advancing the conversion of waste into valuable commodities. In addition to continuing to convert waste to valuable resources, we are also looking at waste disposal methods and selecting industrial waste vendors with an eye on reducing waste disposal energy consumption.

We will also continue to collect environmental information through external environmental organizations to ensure proper waste disposal and maintain our company-wide recycling rate target of 99.9%.

■ Environmental conservation activities

The plant has been actively participating in environmental activities such as clean campaigns in cooperation with local organizations. We will continue to promote active participation in these activities.

●Water quality (Regulated values: Sewage Law)

Item		Regulated value	Results		
			Maximum	Minimum	Average
pH		5～9	7.7	7.1	—
BOD		600	64	3	23
COD		—	50	8	23
SS		600	202	2	23
Oil	Animal and vegetable	30	10.8	0.9	2.9
	Mineral	5	0.8	<0.5	<0.5
Fe		10	1.1	<1	<1
Total nitrogen		380	19	4	10
Fluorine		8	<0.8	<0.8	<0.8
Boron		10	<1.0	<1.0	<1.0

Units: mg/ℓ

Ina Plant

Location: Miyada-mura, Kami Ina-gun, Nagano
Products: Wire springs and precision machined components
Commenced operations: December 1943

Atsushi Shitama
Plant Manager

Environmental outlook and policies

Situated in a green, abundant nature between the Southern and Central Alps, our plant aims to practice both conservation of the natural environment and business activities as we engage in our day-to-day production and improvement work. Under the slogan "Today is better than yesterday, tomorrow is better than today, and the day after tomorrow is better than tomorrow," we are working to maintain and improve the environment so that the region can be proud of its beautiful landscape in the future.

Fiscal 2020 and 2021 initiatives

■ Reduction in CO_2 emissions (absolute value)

We are promoting the replacement of kerosene engine-based air conditioners, which emit a large amount of CO_2, with electric air conditioners, the introduction of large fans to promote air circulation to reduce the load on air conditioners, and the replacement of traditional lighting with LED lighting.

In addition, we are also working to reduce the number of company-owned vehicles and forklifts.

■ Recycling and reducing waste

Although we have already achieved a recycling rate of more than 99%, we are working to reduce waste by using LED lighting and further dismantling and sorting complex materials.

■ Environmental conservation activities

We participate in local cleanup activities and beautification activities in and around the plant.

■ Other

Through 5S activities at the plant, we promote activities to beautify the exterior of the plant to avoid negatively impacting the beautiful local scenery.

●Atmosphere (Regulated values: Air Pollution Control Law)

Substance	Equipment		Regulated value	Results
NOx	Heating boiler	A	250	68
		B	250	42
		C	250	59
Dust	Heating boiler	A	0.3	<0.005
		B	0.3	0.019
		C	0.3	<0.005
SOx	Heating boiler	A	—	<0.001
		B	—	<0.001
		C	—	<0.001

NOx units: ppm Dust units: g/m³N SOx units: m³N/h

●Water quality (Regulated values: Sewage Law and Nagano prefectural regulations)

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5. 7～8.7	7.3	6.7	—
BOD	600	77	3	19
COD	—	58	4	22
SS	600	21	3.00	11
Oil	5	2.4	0.60	1.3
Fe	10	1.9	<1.0	<1.0
Cu	3	<0.3	<0.3	<0.3
Total nitrogen	380	22	2	7

Units: mg/ℓ

DDS (Disk Drive Suspension) Division

Komagane Plant

Location: Komagane, Nagano
Products: HDD suspensions
Commenced operations: November 1983

Yoichi Ikeji
Plant Manager

Environmental outlook and policies

We aim to continue to protect the environment and have an environmentally friendly plant efficiently producing the best quality HDD suspensions and microcontactors in the world, so that future generations can inherit our beautiful environment in good shape.

Fiscal 2020 and 2021 initiatives

■ Reduction in CO_2 emissions (absolute value)

In FY2020, we were able to achieve the CO_2 reduction target set at the beginning of the fiscal year by replacing oil-less inverter compressors, air conditioners, and chillers. In addition, we were able to limit CO_2 emissions to an increase of 3.7% despite the 35% increase in production volume due to an increase in orders compared to the production volume of the previous year.

■ Recycling and reducing waste

By continuing to sort waste, we have maintained a 100% recycling rate. We will continue our efforts to maintain a 100% recycling rate in fiscal 2021.

■ Environmental conservation activities

Due to the impact of COVID-19, a trash pickup activity that we normally conduct together with neighboring companies was canceled for the second year in a row. Instead, however, a trash pickup was held in May 2021 as part of the beautification activities around the plant.

●Water quality (Regulated values: Nagano prefectural regulations)

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5.8 ~ 8.6	7.7	7.2	7.5
BOD	20	8.0	1.0	3.8
COD	20	8.0	3.0	4.7
SS	30	5.0	<1.0	1.9
Oil	5	2.8	<0.5	0.8
Total phosphorus	16	2.6	1.2	1.7
NH_4^+	100	3.1	1.5	2.5

Units: mg/ℓ

Industrial Machinery & Equipment Division

Isehara Plant No. 1 and No. 2

Location: Isehara, Kanagawa
Products: Semiconductor process components, pipe support systems, specialized springs, security products
Commenced operations: March 1993

Naoya Kida
Isehara Plant No. 1 Plant Manager

Kenichi Akao
Isehara Plant No. 2 Plant Manager

Environmental outlook and policies

At our plant, we will continue to develop and manufacture environmentally friendly sophisticated joint technology products, TERA high-stress disc springs used in machine tools, and anti-counterfeiting products. We will work to improve environmental performance by having all of our personnel participate in 3R efforts including conservation of resources, energy saving for CO_2 emissions reduction, and reduction of waste and substances with environmental impact.

Fiscal 2020 and 2021 initiatives

■ Reduction in CO_2 emissions (absolute value)

CO_2 emissions totaled 2,979 tons in fiscal 2019. In fiscal 2020, CO_2 emissions totaled 3,015 tons, a year-on-year increase of 36 tons (1.2%) despite a 4.4% increase in internal sales. We believe that this is the result of our efforts to reduce standby power by turning off the power when equipment is not in use at Plant No. 1 and by turning off single-unit air con-ditioners at Plant No. 2.

■ Recycling and reducing waste

Plant No. 1 reuses a large amount of liquid cleanser while Plant No. 2 reuses paint solvent. We are continuing to reduce the volume of machining chips and waste plastics to improve the transportation efficiency of waste. Continuing to sort industrial waste for recycling, we have achieved a 100% recycling rate for 14 consecutive years.

■ Environmental conservation activities

The Isehara Plant works to improve environmental performance with all employees and stakeholders through efforts including conservation of resources, energy savings, reduction of waste and substances with environmental impact, and recycling promotion.

●Water quality (Regulated values: Isehara sewage regulations)

Item		Regulated value	Results		
			Maximum	Minimum	Average
pH		5.0 ~ 9.0	8.8	7.6	8.5
BOD		600	230	110	161
Oil	Animal and vegetable	30	16	1	8.1
	Mineral	5	1	1	1
Fe		3	0.1	0.01	0.1
Zn		1	0.1	0.02	0.03
Mn		1	0.1	0.02	0.02
Pb		0.1	0.01	0.01	0.01

Units: mg/ℓ

Miyada Plant

Location: Komagane, Nagano
Products: Semiconductor process components
Commenced operations: September 2019

Toshihiko Hanamachi
Plant Manager

Environmental outlook and policies

Ours is a new plant that was completed in March 2019 on the same property as the Industrial Machinery & Equipment Komagane Plant No. 2. We produce environmentally-friendly high-precision bonding products as a mass-production plant for the Isehara Plant No. 1. Having adopted the environmental management system of the Industrial Machinery & Equipment Komagane Plant, all of our employees work to advance efforts toward a recycling-oriented society rooted in the local community by contributing to reduction in environmental impact while utilizing IoT based on the NHK Spring Employees Code of Conduct and Global Environmental Activities Plan.

Fiscal 2020 and 2021 initiatives

■Reduction in CO_2 emissions (absolute value)

A breakdown of our plant's energy use shows that it comprises 99.5% electric power and 0.5% water, making us an all-electric powered plant.

We actively address reduction in CO_2 emissions by introducing electric energy saving measures, including solar power generation, energy savings of compressors (use of water circulation inverter devices and controlling the number of compressors in use), top lighting, LED plant lighting, electric power monitoring, and demand control (vacuum furnace).

■Recycling and reducing waste

We have maintained a 100% recycling rate in fiscal 2020. All plant personnel are also working to reduce waste volume and processing costs by recycling and converting waste into valuable commodities.

■Environmental conservation activities

This was added to the Industrial Machinery & Equipment Komagane Plant Environmental Manual in 2020, and environmental conservation activities have begun. We have established an environmental management system with the aim of obtaining certification in fiscal 2021 under the fiscal 2015 version of the ISO standard.

Komagane Plant

Location: Komagane, Nagano
Products: Specialized polyurethane foam products, Integrated metal products:
Commenced operations: December 1981

Tatsuya Saito
Plant Manager

Environmental outlook and policies

Situated amid verdant scenery with a view of both Alps ranges, this plant develops and produces functional urethane products and metal substrates. All of our employees work to advance efforts toward a recycling-oriented society rooted in the local community and based on the NHK Spring Employees Code of Conduct and Global Environmental Activities Plan.

Fiscal 2020 and 2021 initiatives

■Reduction in CO_2 emissions (absolute value)

In the first half of fiscal 2020, we were unable to meet our goal for CO_2 emissions per unit output target due to the impact of COVID-19. In the second half of the period, however, sales recovered and we were able to meet the target. (Target value: 0.793, First-half result: 1.007, Second-half result: 0.784).

We are moving forward with CO_2 emissions reduction efforts in fiscal 2021 toward the goal of a 1% cut from the previous year.

■Recycling and reducing waste

In fiscal 2020, we maintained a 100% recycling rate. However, waste volume increased by 7.7% from the previous fiscal year, while processing costs increased by 12.5%. We have been giving priority to reducing waste through recovering iron (II) chloride waste, which has been an issue since fiscal 2019.

■Environmental conservation activities

As part of our environmental activities, we used to hold a trash pickup activity around the plant every year as a popular plant event. However, it has been difficult to hold events where people gather together due to COVID-19. We will continue to hold this events, taking into account social conditions and reducing the scale if necessary, so that we can keep the spirit of environmental conservation activities alive as a plant.

●Atmosphere (Regulated values: Air Pollution Control Law)

Substance	Equipment		Regulated value	Results
NOx	Hot water boiler	A	180	30
		B	180	50
Dust	Hot water boiler	A	0.3	<0.006
		B	0.3	<0.005
SOx	Hot water boiler	A	—	<0.001
		B	—	<0.001

NOx units: ppm Dust units: g/m^{3}N SOx units: m^{3}N/h

●Water quality (Regulated values: Nagano prefectural regulations) Production Building 1

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5.8 ~ 8.6	8.1	7.8	—
BOD	20	1.0	<1.0	<1.0
COD	20	1.0	<1.0	<1.0
SS	30	1.0	<1.0	<1.0
Oil	5	1.9	<0.5	<0.5

Units: mg/ℓ

●Water quality (Regulated values: Nagano prefectural regulations) Production Building 2

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5.8 ~ 8.6	7.6	6.5	—
BOD	20	28	5	18
COD	20	16	5	10
SS	30	4	<1	1
Oil	5	1.2	<0.5	0.5
Fe	10	<1	<1	<1
Cu	3	0.9	<0.3	0.4
NH_4	100	2.7	1.3	1.9

Units: mg/ℓ

Yasu Plant

Location: Yasu, Shiga
Products: Mechanical multilevel parking systems
Commenced operations: October 1996

Hiroshi Kaneko
Plant Manager

Environmental outlook and policies

Our plant develops and manufactures mechanical multilevel parking systems as well as other mechanical components under a slogan to reduce the impact on the environment. We aim to further protect the global environment and continue improving our care for the environment to ensure that we pass on the green mountains and clear air and rivers of these superb natural surroundings to later generations.

Fiscal 2020 and 2021 initiatives

■ Reduction in CO_2 emissions (absolute value)

Since fiscal 2020, the only CO_2 emissions from production activities have been electricity related.
Our energy savings activities in FY2021 will include efficient operation of ceiling fans and hydraulic motors to reduce wasted electricity.
We will also replace electric heaters with heated vests in winter to make improvements that not only save energy but also give kind consideration to workers.

■ Recycling and reducing waste

We will carry out improved and thorough separation to maintain our 100% recycling rate.
We will continue to promote recycling of waste into useful resources and reduce waste treatment costs by looking for a new waste treatment contractor, taking into account the termination of powder coating equipment operation and responding to changes in waste.

■ Environmental conservation activities

We will continue to actively participate in social contribution activities organized by local communities and municipalities, taking into consideration the status of the COVID-19 pandemic at the time. In addition, we will continue to conduct environmental patrols by patrolling around our plants.