Separate volume Environmental Data

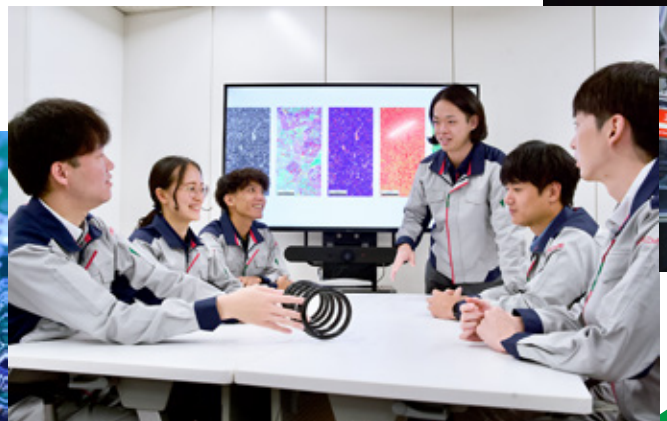
NHK SPRING REPORT 2024

NHK SPRING CO.,LTD.

Manufacturing Derived from Springs.

-Technology to Change & Unchanged Reliance








Progress in Environmental Activities

	Progress by NHK Spring	Progress by domestic Group companies	Trends in society
FY2003	Mar.: Zero emissions achieved at Yokohama site 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	Soil Contamination Countermeasures Law announced Automobile Recycling Law announced Japan ratified the Kyoto Protocol
FY2004	Mar.: Zero emissions achieved at Yokohama site Jun.: 9th Global Environment Forum held	Jul.: NHK Spring Mutsumi-kai Technical Committee Global Environmental Issues Subcommittee meeting Sep.: Tohoku Nippatsu gained ISO 14001 certification	Automobile Recycling Law enacted Soil Contamination Countermeasures Law enacted Amended Law Concerning the Rational Use of Energy enacted
FY2005	Jan.: Yokohama Site received Commendation at PRTR Awards 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
FY2006	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
FY2007	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
FY2008	Jan.: Installed a solar electric generator panel at DDS Komagane plant Jun.: 14th Global Environment Forum held	Jun.: Group Company Environmental Liaison Committee announced	G8 Toyako Summit (Hokkaido)
FY2009	Feb.: Installed a solar electric generator panel at Yokohama site Jun.: 15th Global Environment Forum held		G8 L'Aquila Summit (Italy)
FY2010	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
FY2011	Feb.: Installed a solar electric generator panel at Gunma plant Jun.: 18th Global Environment Forum held Nov.: Yokohama Site recognized as an Excellent Sitein 3R (Let's Reduce, Reuse and Recycle!) by Yokohama City		Implementation of Amended Water Pollution Control Act (Storage Facilities)
FY2012	Jun.: 18th Global Environment Forum held Nov.: Yokohama Site recognized as an Excellent Sitein 3R (Let's Reduce, Reuse and Recycle!) by Yokohama City	Aug.: Installed a solar electric generator panel at Topura Hadano plant	Implementation of Amended Water Pollution Control Act (Facilities using Hazardous Substances) First commitment period under Kyoto Agreement ended
FY2013	Feb.: Yokohama Site 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 Site 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)
FY2014	Apr.: Starting Clean-up Activity of NHK Spring Mitsuzawa Football Stadium by Volunteers Oct.: Yokohama Site received energy efficiency field visit from the Ministry of Economy, Trade and Industry 25th Global Environment Forum Nov.: Yokohama Site received Yokohama City recognition for excellence in the 3Rs (Let's Reduce, Nov.: 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
FY2015	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 Site 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
FY2016	Nov.: 27th Global Environment Forum held Nov.: Yokohama Site 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)
FY2017	Aug.: NHK Spring Group started energy conservation diagnostics Nov.: 28th Global Environment Forum held Dec.: Yokohama Site 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
FY2018	NHK Spring recognized as an S-Class energy conservation method service provider Nov.: 29th Global Environment Forum held Dec.: Yokohama Site received Yokohama City recognition for excellence in the 3R (Let's Reduce, Reuse and Recycle!) (seven years in a row) Mar.: Installed a solar electric generator panel at Miyada plant	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 Dec.: Installed a solar electric generator panel at NHK FLEX	The 24th United Nations Framework Convention on Climate Change (COP24) was held The particulars (implementation policy) of the Paris Agreement were determined
FY2019	Jun.: Yokohama Site received the Yokohama Global Warming Countermeasures Prize Sep.: NHK Spring Group implemented energy conservation diagnostics Nov.: 30th Global Environment Forum held Dec.: Yokohama Site received Yokohama City recognition for excellence in the 3Rs (Let's Reduce, Reuse and Recycle!) (eight years in a row)	Mar.: Installed a solar electric generator panel at Miyada plant 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
FY2020	Apr.: NHK Spring recognized as an S-Class energy conservation method service provider Dec.: Yokohama Site 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 in Japan Japanese Government Declares Goal of Achieving Carbon Neutrality by 2050
FY2021	Sep.: NHK Spring Group declared their Environmental Challenges(Carbon Neutrality on 2039, Zero Nov.: Industrial Waste) Dec.. 31st Global Environment Forum held Yokohama Site received Yokohama City recognition of rexcellence in the 3Rs (Let's Redue, Reuse and Recycle!) (Ten years in a row)	Jun.: Horikiri, Nippon Shaft and NHK Precision recognized asa S-Class conservation method service providers	Act on Promotion of Resource Recycling of Plastics, went into effect.
FY2022	Nov.: 32st Global Environment Forum held Dec.: Held a training course for Group environmental internal auditors Dec.: Carbon Neutral Contribution Award presented	Apr.: Sumihatsu , Nippon Shaft and NHK Precision recognized as S-class conservation method service providers. Apr.: Installed a solar electric generator panel at NHK MEC Komagane plant Nov.: Photovoltaic panels installed at the Nippon Shaft Komagane Plant	Mar.: Ministry of the Environment and Ministry of Economy, Trade and Industry publish carbon footprint guidelines Apr.: The Plastic Resource Recycling Promotion Act enacted May.: Law Concerning the Rational Use of Energy and Conversion to Non-Fossil Energy, etc. (Revised Energy Conservation Law) is enacted.
FY2023	Sep.: Held a training course for Group environmental internal auditors Oct.: Installed a solar electric generator panel at Atsugi plant Nov.: 33rd Global Environment Forum held Dec.: 2nd Carbon Neutral Contribution Award presented	Feb.: Installed a solar electric generator panel at NHK Spring Kyushu	Sep.: The global warming potential of greenhouse gases is revised by cabinet order (effective April 2024) Nov.: With amendment of the Chemical Substance Control Law, PFHxS compounds is designated as Class I Specified Chemical Substances

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 in 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 programs and is repeatedly implemented with every promotion. Specialist education is provided when staff begin new positions, and regular skill upgrading is also provided.

Contents of Environmental Education (FY2023 results)

Level-separate education	
Target trainees	Content of education
Training for new employees	Description of initiatives by NHK Spring Group regarding global environmental issues, environmental management systems, environmental laws and regulations, and other requirements by stakeholders.
Training for new assistant managers	
Training for new supervisors	
Training for new managers	

Education for specialized personnel		
Target trainees	Content of education	
Internal Environmental Auditors (ISO revision compliant)	Education to become an auditor	Internal Environmental Auditor training courses
	Skills upgrading training	Workshops for Chief Environmental Auditors
Overseas assignees (expatriates)	Environmental management system, Overseas environmental laws and regulations, NHK Spring Group environmental requirements, etc.	

Internal Environmental Auditor training courses (environmental education, when held in FY2019)
*Since 2022, we have been holding remote classes via Zoom and other platforms every year.

Number of Staff with Environmental Qualifications (as of May 2024)

Qualification	Classification		Number of qualification holders
Pollution Control Manager	Air		36
	Water		39
	Noise・Vibration		38
Environmental Management System Auditor	Assistant Auditor		1
Certified Environmental Measurer	First grade	Dust	1
		Special chemicals	1
		Organic solvents	1
Working Environment Measurement Expert	Concentration-related		1
Specially Controlled Industrial Waste Manager			29
Qualified Energy Manager			34
Energy Managers for Second grade Designated Energy Management Factories			17
Total (including persons with multiple qualifications)			198

Environment-related qualification holders

198 pepole

(including persons with multiple qualifications)

ISO14001 Initiatives

In order to systematically address environmental preservation, we have obtained ISO 14001 certification, the international standard for environmental management systems.

NHK Spring Certification Status

We began preparations to acquire ISO 14001 certification in 1996 and acquired the certification at our Yokohama Plant (Suspension Springs) in January 1997 before our competitors in the same industry. This was followed by the acquisition of ISO 14001 at three plants every year until the final plant was certified in April 2001, thereby resulting in the acquisition of certification at all our 11 plants in Japan. Each NHK Spring plant with 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 it in September 2021. We will continue our efforts to maintain this status in future.

Dates of ISO 14001 Certification Acquisition in NHK Spring

Division	Plant	Acquisition date
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

ISO14001certification

12plants (Japan)

Certification Status of Group Companies

Domestic Group companies

Among our domestic group companies, one administrative company and 16 manufacturing companies have obtained third-party certification for ISO 14001.

As of October 2018, all domestic Group companies with ISO 14001 certification have completed updating to ISO 14001:2015. We will strive to keep this status.

Dates of ISO14001 Certification Acquisition by Group Companies

Region	Company name	Acquisition date
Japan	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
	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

Overseas Group companies

We are also progressing with the acquisition of ISO14001 certification at our overseas Group companies. As of FY2022, 16 companies have acquired certification, and more companies will be certified in the future.

Group companies with ISO 14001 certification

17companies (Japan),16companies (Overseas)

Region	Company name	Acquisition date
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 Autopecas Ltda.	May 2002
Asia	NHK Spring (Thailand) Co., Ltd.	June 2000
	NHK Precision (Thailand) Co., Ltd.	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 (Dong Guan) Co., Ltd.	October 2005
	Uni Auto Parts Manufacture Co., Ltd.	March 2006
	NHK Spring India Ltd.	October 2003
	NHK Spring Philippines, Inc.	October 2014
	NHK Automotive Components India Private Limited	January 2010
Europe	Iberica de Suspensiones, S.L.	December 2003

Environmental Accounting

We identify the costs and effects of our environmental conservation activities in environmental accounting and utilize this information in running the company.

FY2023 Environmental Accounts - Classifications and Results

We introduced environmental accounting in FY2000 in accordance with the Environmental Accounting Guidelines (2005 edition) issued by the Ministry of the Environment while collecting data for the nine categories listed in the table on the right.

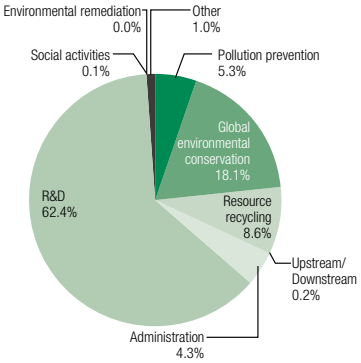
Using fixed criteria set by us, total environmental expenditures in FY2023 amounted to JPY 2,365.5 million. The breakdown is shown in the table below. As in the previous year, R&D costs increased due to investment in development of electric vehicle components, while global environmental conservation costs increased due to investments related to carbon neutral.

Other costs were more or less in line with the previous year.

FY2023 - Environmental Conservation Costs **(Unit: JPY million/year)**

Cost classificationion	Main elements	Value in FY2021*	Value in FY2022*
① Pollution prevention	Maintenance costs for wastewater treatment facilities and dust collectors Costs for measuring and monitoring air, water, noise, etc. Other costs required for pollution prevention	135.1	125.7
② Global environmental conservation	Costs for control of fluorocarbons and other gas emissions, energy saving measures, global warming prevention, etc.	314.9	427.3
③ Resource recycling	Waste treatment, zero emissions measures, in-house recycling, PCB waste treatment, etc.	191.6	203.5
④ Upstream/Downstream	Expenses to reduce the environmental impact generated by our production activities at suppliers, customers, etc. (green purchasing, product recycling, packaging material reduction costs, etc.)	12.0	4.1
⑤ Administration	Waste manifest management, ISO 14001 maintenance and renewal inspections and ISO 14001 office personnel costs, reporting to administrative authorities, etc.	105.0	101.3
⑥ R&D	Research to reduce environmental loads, and development of products that will contribute to reducing environmental loads	1,060.0	1,475.4
⑦ Social activities	Implementation of social contribution activities (cleaning of local areas and rivers)	2.0	3.0
⑧ Environmental remediation	Remediating environmental damage in local areas	3.0	0.8
⑨ Other	Costs incurred in environmental remediation activities other than the above (including costs for PCB waste management)	24.0	24.4
Total		1,847.5	2,365.5

*Value: Totals of “Environmental Investments” and “Environmental Conservation”



FY2023 Environmental conservation cost JPY 2,365.5

Classifications and Performance of Investment Effect in FY2023

Results for FY2023 are shown in the table below.

Unit energy consumption and unit CO_2 emissions decreased significantly from the previous year due to improved production efficiency and sales, new CO_2 reduction measures, and a decrease in unit electricity CO_2 emissions.

Through the promotion of recycling and recovery of valuable materials, the amount of landfilled waste decreased by 0.6 tons in FY2023 compared to the previous fiscal year. The amount of recycled waste increased by 4,200 tons over the previous year, partly due to Initiatives to improve plastic waste recycling.

Unit energy and water costs decreased by approximately 15% from FY2022 due to improvements in production efficiency and revisions to water quality management. We will continue to make improvements through more efficient use of energy and water.

FY2023 Investment Effects and Performance

	Material effects *1			Assessment
	FY2022 results	FY2023 results	Effects	
Unit energy use (GJ/JPY million) *3	8.87	7.98	△ 0.89	○
Unit CO_2 emissions (ton-CO_2/JPY 100 million) *3	33.5	27.1	△ 6.4	○
Landfilled wastes (tons/year)	5.72	5.10	△ 0.62	○
Recycled wastes (tons/year)	28,898	33,099	4,201	○

	Economic effects *2			評価
	FY2022 results	FY2023 results	効果	
Unit energy and water costs (JPY/JPY 1,000) *3	23.3	19.8	△ 3.5	△
Gain on sales from recycling (JPY million)	1,272.0	1,341.9	69.9	○

*1 Material effects: Reduction in environmentally hazardous substances, etc.
*2 Economic effects: Energy and waste-related cost reductions, etc.
*3 Unit: Value to sales

Management and Reduction of Environmentally Hazardous Substances

We strive to properly manage and reduce environmentally hazardous substances according to related legislation, the rules of organizations to which we are affiliated, our own in-house standards and so on.

Pollutant Release and Transfer Register (PRTR) Surveys

Since FY1997, we have taken part in voluntary PRTR surveys organized by Nippon Keidanren (Japan Business Federation), in an effort to establish the amount of environmentally hazardous substances handled, released, and transferred.

We have been reporting data to the Ministry of Economy, Trade and Industry under the PRTR Law since June 2001, and we have set up our own survey criteria to monitor the handling of chemical substances used in all of our divisions.

Furthermore, since FY2005, our domestic Group companies have conducted the same voluntary PRTR surveys in an effort to reduce the release of such substances.

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

Since FY2011, we have continuously managed not only substances of very high concern under the European REACH regulation, but also chemical substances that are expected to be regulated in the future so as not to use them during manufacturing.

Results of FY2023 Survey of Releases and Transfers of Environmentally Hazardous Substances (April 2023-March 2024)

NHK Spring **(Unit: tons/year)**

PRTR Substance No.	Target substance	Amount handled yearly	Amount emitted						Amount transferred	
			Air	Water quality	Soil	In-house landfill at plants			Industrial Waste (subcontracted)	Waste (subcontracted)
						Stable	Managed	Isolated		
1	Zinc compounds (water-soluble)	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
20	2-Aminoethanol	2.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1.4
53	Ethyl benzene	6.3	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.5
80	Xylene	11.8	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.7
82	Silver and its water-soluble compounds	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
232	N,N-dimethylformamide	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
298	Toluene diisocyanate (TDI)	696.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	Toluene	73.8	66.6	0.0	0.0	0.0	0.0	0.0	0.0	2.4
309	Nickel compounds (Special Class I)	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
384	1-Bromopropane	7.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0	6.3
410	Polyoxyethylene nonyl phenyl ether	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0
412	Manganese and its compounds	1.9	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
448	Methylenebis (4.1-Phenylene) = Diisocyanate (MDI)	99.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
594	Butylcellosolve	42.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1
598	Chloric acid and its potassium and sodium salts	0.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.3
629	Cyclohexane	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
691	Trimethylbenzene	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
727	Hexanedihydrazide	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
731	Heptane	26.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	16.9
737	Methyl isobutyl ketone	0.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	Total volume of PRTR substances	977.1	98.7	0.0	0.0	0.0	0.0	0.0	0.3	30.4

Domestic Group companies **(Unit: tons/year)**

PRTR Substance No.	Target substance	Amount handled yearly	Amount emitted						Amount transferred	
			Air	Water quality	Soil	In-house landfill at plants			Industrial Waste	Waste (subcontracted)
						Stable	Managed	Isolated		
1	Zinc compounds (water-soluble)	15.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	14.8
20	2-Aminoethanol	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
37	Isopropylidenediphenol	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
53	Ethyl benzene	47.7	45.1	0.0	0.0	0.0	0.0	0.0	0.0	1.2
80	Xylene	69.1	64.7	0.0	0.0	0.0	0.0	0.0	0.0	1.5
232	N,N-dimethylformamide	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	Toluene	101.4	98.2	0.0	0.0	0.0	0.0	0.0	0.0	2.0
309	Nickel compounds (Special Class I)	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
321	Vanadium compounds	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
354	Bis (n-butyl) phthalate	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
384	1-Bromopropane	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
392	Hexane	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
448	Methylenebis (4.1-Phenylene) = Diisocyanate (MDI)	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
594	Butylcellosolve	5.2	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
597	Chlorinated Linear Paraffins	5.2	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
629	Cyclohexane	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2
691	Trimethylbenzene	2.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1
727	Hexanedihydrazide	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
	Total volume of PRTR substances	256.5	217.3	0.0	0.0	0.0	0.0	0.0	0.2	27.8

* Industrial wastes include wastes that are recycled for a charge and those that are recycled for no charge. However, wastes that are sold are excluded.
* Discharges into the public sewage system are included in the category of Amounts Transferred.

Head Office

Research and Development Division, Engineering Division

Location : Kanazawa-ku, Yokohama
Business contents : Planning, Management, R&D
Commenced operations : February 1991

Outline of Initiatives

The Head Office is located in the Yokohama Site with the Suspension Spring and Seating Divisions. In cooperation with each production division, we engage in business activities while taking into consideration the local community. We take care to respond dutifully in cooperation with the local government, especially regarding wastewater, air, noise, and waste.

Environmental Outlook and Policies

As Head Office functions, we develop new products and new equipment related to energy saving and renewable energy use, and we conduct various environmental education and training courses. We also lead environmental activities in the entire Group by compiling internal examples of good practices.

FY2023 and FY2024 Initiatives

Environmental Challenge Initiatives

To achieve the Environmental Challenge, we check the plans and progress of the entire group, and for effective reduction measures, we present the Carbon Neutral Contribution Award to encourage horizontal development within the group. In addition to reducing CO_2 emissions, we have set waste reduction targets for fiscal 2024 and are committed to manufacturing with minimal environmental impact.

Various risk management initiatives

To support risk response for various issues as required by ISO 14001 (2015 edition), we check the operations of environmental laws and various environmental facilities using self-audit check sheets, and systematically improve any items that are found to be insufficient.

In addition, we quickly obtain information on revisions to environmental laws and regulations and disseminate it to relevant parties, thereby reducing the risk of violating legal compliance obligations.

Management of chemical substances

We tabulate the chemical substances used at domestic plants (including those of Group companies) every year according to our own standards and disclose a part of the tabulated the results in the NHK Spring Report. We also promote risk assessment of chemical substances and 5S activities to protect workers, and appropriately manage chemical substances used in products in accordance with the Green Procurement Guideline.

Atmosphere (Regulated values: Air Pollution Control Act, Yokohama City Ordinance)

Substance	Equipment		Regulated value	Results
NOx	Hot water boiler	A	0.041	0.003
		B	0.025	0.008
		C	0.025	0.006
	Chilled and hot water generator	A	0.029	0.003
		B	0.018	0.006
		C	0.024	0.002
Dust	Hot water boiler	A	0.050	<0.006
		B	0.050	<0.006
		C	0.050	<0.005
	Chilled and hot water generator	A	0.050	<0.006
		B	0.050	<0.006
		C	0.050	<0.006

NOx Unit: Nm^3/h Dust Unit: g/Nm^3

Water quality: Main Building (Regulated values: Yokohama City Ordinance)

Item	Regulated value	Results		
		Maximum	Minimum	Average
ph	5～9	8.0	7.1	—
Oil	5	2.5	<0.5	0.9
Fe	3	<0.3	<0.3	<0.3
Zn	1	<0.1	<0.1	<0.1
Ni	1	<0.1	<0.1	<0.1
Total-Cr	2	<0.2	<0.2	<0.2
Fluorine	8	<0.8	<0.8	<0.8
Phenols	0.5	<0.05	<0.05	<0.05
NH_4^+	380	<0.3	<0.3	<0.3

Unit: mg/L

Water quality: R&D Building (Regulated values: Yokohama City Ordinance)

Item	Regulated value	Results		
		Maximum	Minimum	Average
ph	5～9	7.4	6.6	—
Oil	5	2.1	<0.5	1.0
Fe	3	<0.3	<0.3	<0.3
Zn	1	0.5	<0.1	0.2
Ni	1	<0.1	<0.1	<0.1
Total-Cr	2	<0.2	<0.2	<0.2
Cu	1	<0.1	<0.1	<0.1
NH_4^+	380	1.6	1.0	1.4

Unit: mg/L

Suspension Spring Division

Yokohama Plant (Suspension Springs)

Location : Kanazawa-ku, Yokohama

Business contents : Coil springs, Leaf springs, Metal bellows

Commenced operations : November 1987

Plant Manager:
Yasuyuki Ueki

Environmental Outlook and Policies

Under the slogan of “manufacturing springs that are friendly to the global environment,” our plant engages in “reduction of CO2 emissions”to achieve carbon neutrality by 2039 and “reduction of industrial waste” with the goal of reducing the amount of thermal recycling by 2030. Also, we “promote continuous improvement of the environmental management system with the participation of all employees” to “preserve the global environment and prevent global warming” and contribute to the creation of the environment that we will hand down to the next generation.

FY2023 and FY2024 Initiatives

Reduction in CO_2 emissions (absolute value)

The manufacturing of automotive suspension springs mainly involves heat treatment processes. To achieve carbon neutrality, we will develop new spring manufacturing methods based on energy conversion, such as the electrification of gas furnaces.

In FY2023, we promoted ongoing activities such as reducing operating hours by improving productivity, electrifying forklifts, and converting fluorescent lights to LEDs as immediate energy conservation measures. We also consolidated production lines in line with changes in the order environment and optimized energy consumption.

In FY2024, we will continue to work on air conditioner on-demand operation and eliminating air leakage losses in production equipment, while collaborating with the Production Division to verify technologies for future energy conversion.

Waste reduction and recycling

In addition to reducing the absolute amount of waste, we will promote the development of routes for utilizing waste as valuable resources. We will shift from thermal recycling to recycling methods based on material recycling and chemical recycling, with the aim of reusing resources.

Environmental conservation activities

We continue to conduct cleanup activities around our offices as part of our contribution to the local community.

Atmosphere (Regulated values: Air Pollution Control Act, Yokohama Ordinance)

Substance	Equipment		Regulated value	Results
NOx	Metal heating furnace	A	0.128	0.049
		B	0.110	0.011
		C	0.212	0.027
		D	0.169	0.096
		E	0.119	0.031
	Metal tempering furnace	A	0.202	0.008
		B	0.123	0.002
		C	0.104	0.023
		D	0.085	0.007
		E	0.059	0.005
Dust	Metal heating furnace	A	0.1	<0.003
		B	0.1	<0.004
		C	0.1	<0.006
		D	0.1	<0.006
		E	0.1	<0.004
	Metal tempering furnace	A	0.1	<0.011
		B	0.1	0.006
		C	0.1	<0.009
		D	0.1	<0.006
		E	0.1	<0.006

NOx Unit: Nm^3/h Dust Unit: g/Nm^3

Water quality (Regulated values: Yokohama City Ordinance)

Item		Regulated value	Results		
			Maximum	Minimum	Average
ph		5 ~ 9	7.3	6.7	—
Oil	Animal and vegetable oils	30	6.7	0.8	2.8
	Mineral oils	5	1.1	<0.5	0.8
Fe		3	<0.3	<0.3	<0.3
Zn		1	<0.1	<0.1	<0.1
Ni		1	0.6	0.1	0.2
Mn		1	<0.1	<0.1	<0.1
Fluorine		8	<0.8	<0.8	<0.8
Boron		10	<1.0	<1.0	<1.0
Total nitrogen		120	69	14	37
Total phosphorous		16	<1.0	<1.0	<1.0
NH_4^+		380	61	12	31

Unit: mg/L

Suspension Spring Division

Shiga Plant

Location : Koka-shi, Shiga

Business contents : Coil springs, Stabilizer bars, Torsion bars

Commenced operations : November 1973

Plant Manager:
Satoshi Bnno

Environmental Outlook and Policies

We will continue all employees' participation in environmental preservation, which is one of our plant STPM activities, and actively promote “environmentally friendly spring manufacturing”. In addition, we will accelerate productivity improvement and facility renovation, and aim to achieve our environmental challenge target by reducing CO_2 emissions and converting waste into valuable resources and recycling.

FY2023 and FY2024 Initiatives

Reduction in CO_2 emissions (absolute value)

In FY2023, in addition to continuing energy conservation activities such as air leak inspections, we promoted the electrification of production equipment, restored power to the hollow stabilizer line, and converted hydraulic presses to servo presses.

In FY2024, we will accelerate activities aimed at further reducing CO_2 emissions, including energy conservation measures for air conditioners and compressors, the electrification of forklifts, and the elimination of gas-fired heat treatment furnaces.

Waste reduction and recycling

In FY2023, we succeeded in converting some waste plastic into valuable resources.

In FY2024, we will continue our efforts to achieve our environmental challenge goals by thoroughly separating valuable resources through waste sorting patrols in all workplaces and maintaining and improving recycling.

Environmental conservation activities

Since our plant is situated close to Lake Biwa, it is vital that we strive to maintain the quality of wastewater. Therefore, we will contribute to global environmental preservation by thoroughly maintaining and continuously improving wastewater treatment facilities and improving water quality when discharging wastewater.

In addition to the monthly cleanup of the plant's perimeter, we will continue to participate in local cleanup activities such as “Lake Biwa Day Cleanup” and “Sawarabi Workplace Cleanup at Welfare Facilities”.

Other

We will work to improve the way we transport items with a focus on safety and the environment, aiming to reduce the use of forklifts.

Atmosphere (Regulated values: Air Pollution Control Act)

Substance	Equipment		Regulated value	Results
NOx	Metal heating furnace	A	180	68
		B	180	32
		C	180	32
		D	180	65
	Metal tempering furnace	E	180	41
Dust	Metal heating furnace	A	0.20	<0.009
		B	0.20	<0.005
		C	0.20	<0.005
		D	0.20	<0.004
	Metal tempering furnace	E	0.20	<0.026

NOx Unit: ppm Dust Unit: g/Nm^3

Water quality (Regulated values: Minakuchicho Agreement)

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	6 ~ 8.5	7.5	6.9	—
BOD	30	>1	>1	>1
COD	30	2	>1	1.1
SS	70	4	>1	2.6
Oil	5	1.9	>0.5	1.2
Total nitrogen	12*	5.3	>1.0	2.4
Total phosphorous	1.2*	0.2	>0.1	0.1
Total phosphorous	8*	>0.8	>0.8	>0.8
Boron	10*	>1.0	>1.0	>1.0
Zn	1*	>0.1	>0.1	>0.1

Unit: mg/L *Shiga Prefecture Ordinance

Seating Division

Gunma Plant

	(Ojima Area)	(Ota Area)
Location	:Ota City, Gunma	Ota City, Gunma
Products	:Automotive seats	Automotive seats
Commenced operations	:December 1986	July 1969

Plant Manager:
Takayuki Hamada

Environmental Outlook and Policies

Our factory contributes to the development of the automotive society by conducting integrated production activities ranging from the development and design to the manufacture and shipment of safe and environmentally friendly automotive seats and interior parts.

We recognize that it's our mission to pass on a rich and beautiful Earth to the next generation. We're committed to safe and people-friendly production activities that consider environmental conservation, and we'll keep pushing volunteer and cleanup activities that are rooted in the community.

FY2023 and FY2024 Initiatives

Reduction in CO_2 emissions (absolute value)

In FY2023, we reduced CO_2 emissions by approximately 168 tons through the promotion of LED conversion, steam trap renovation, compressor replacement, and other measures.

Waste reduction and recycling

Our factory will maintain and continue to achieve a 100% recycling rate through measures such as converting waste into valuable resources. In fiscal 2024, we will continue to focus on activities to reduce waste.

Environmental conservation activities

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

Other

In FY2024, we will renew exhaust fans and convert control panel coolers to inverters, and continue to promote energy conservation activities.

Atmosphere: Ojima area (Voluntary values for unregulated equipment)

Substance	Equipment	Regulated value	Results
NOx	Generator	950	296
	Boiler	150	43
Dust	Generator	0.1	0.05
	Boiler	0.1	<0.001

NOx Unit: Nm^3/h Dust Unit: g/Nm^3

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

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5.8 ~ 8.6	7.5	7.0	—
BOD	25	8.0	4.0	5.3
COD	25	12.0	9.0	10.3
SS	50	4.0	2.0	2.7

Unit: mg/L

Water quality: Ota area (Voluntary regulatory values)

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5.8 ~ 8.6	8.1	7.6	—
BOD	60	1.0	1.0	1.0
COD	60	4.0	1.0	2.3
SS	70	10	2.0	2.6

Unit: mg/L

Seating Division

Yokohama Plant (Seating)

Location : Kanazawa-ku, Yokohama

Products : Automotive seats and interior products

Commenced operations : April 1990

Plant Manager:
Takehiro Watanabe

Environmental Outlook and Policies

Environmental Challenge: To achieve carbon neutrality and zero industrial waste by 2039, we will monitor, measure, and analyze the impact of our factory's business activities on the global environment to accurately understand its effects. We will also keep abreast of global trends, such as the development of energy-efficient equipment, and accelerate our environmental improvement efforts.

FY2023 and FY2024 Initiatives

Reduction in CO_2 emissions (absolute value)

In FY2023, we completed the installation of inverter compressors and an updated unit control system, as well as the introduction of 47 energy-efficient air conditioners. In FY2024, we plan to continue these efforts by completing the conversion to high-efficiency motors for exhaust fans and the adoption of compact chillers for cooling water.

Waste reduction and recycling

Until now, we have been disposing of urethane scraps that remained unresponsive due to problems by having them incinerated by a waste disposal company. However, we have successfully contracted a company that solidifies these scraps and converts them into valuable materials. Additionally, we are currently working to fully convert the massive amount of cushioning materials from overseas purchases into valuable materials.

Environmental conservation activities

As a remnant of the old days when the Yokohama Plant(seating) had a painting furnace, there is currently a pollution control facility on site. However, no heavy metals are currently being generated, and the only wastewater is oily water and boiler drain water. We are therefore preparing to render these harmless and shut down the pollution control facility.

Atmosphere (Regulated values: Air Pollution Control Act, Yokohama Ordinance)

Substance	Equipment	Regulated value	Results
NOx	Boiler	0.064	0.041
Dust	Boiler	0.05	＜0.005

NOxUnit: Nm^3/h Dust Unit: g/Nm^3

Water quality (Regulated values: Yokohama City Ordinance)

Item		Regulated value	Results		
			Maximum	Minimum	Average
pH		5～9	7.9	7.1	—
Oil	Animal and vegetable oils	30	2.9	<0.5	1.1
	Mineral oils	5	2.6	<0.5	1.1
NH_4^+		380	1.5	<0.3	0.9

単位：mg/L

Seating Division

Toyota Plant

Location : Toyota-shi, Aichi

Products : Automotive seats and interior products

Commenced operations: : June 1961

Plant Manager:

Satoshi Chiyonobu

Environmental Outlook and Policies

Our plant performs unified design, manufacture and shipment of finished automotive seating products, frames and component parts. In addition to examining a form of plant management that is geared to achieving carbon neutrality, we will actively pursue energy saving and CO_2 emissions reduction activities. Also, while flexibly responding to changes in the external environment and conducting manufacturing based on state-of-theart technologies and automation, we will take initiatives for contributing to realization of a sustainable society.

FY2023 and FY2024 Initiatives

Reduction in CO_2 emissions (absolute value)

In FY2023, we contributed to reducing CO_2 emissions by replacing aging air conditioners, implementing new energy-saving measures to reduce power consumption, converting spring and pipe processing equipment to servo motors, and switching the fuel for all tempering furnaces from LPG to city gas.

In FY2024, we will continue our energy-saving efforts and prepare for the installation of solar power generation systems, which are scheduled to be introduced in the next fiscal year.

Waste reduction and recycling

In FY2023, we succeeded in converting 29% of waste that had previously been thermally recycled into material recycling. In FY2024, we will work to further reduce waste volume by converting waste into valuable resources and improve the conversion rate to material recycling.

Environmental conservation activities

We will conduct regular monitoring of the environmental impact on the area surrounding the factory and manage it accordingly. We will also engage in cleaning activities and beautification activities such as planting flowers to contribute to the conservation and protection of the local environment.

Water quality (Regulated values: Sewerage Service Act)

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5～9	7.4	6.6	—
Oil	5	1.8	0.5	1.2

Unit: mg/L

Precision Spring & Components Division

Atsugi Plant

Location : Aikawa-machi, Aiko-gun, Kanagawa

Products : Thin leaf springs, Precision stamped products, Assemblies

Commenced operations : November 1970

Plant Manager:
Yoichi Ueda

Environmental Outlook and Policies

This plant produces motor cores, which are drive components for environmentally friendly electric and hybrid vehicles. We are committed to promoting the spread of electric and hybrid vehicles, which are essential for achieving clean energy, one of the SDGs, and aim to be an environmentally friendly factory that satisfies our customers.

FY2023 and FY2024 Initiatives

Reduction in CO_2 emissions (absolute value)

The plant has introduced a power monitoring system to provide timely information on power consumption throughout the plant and is working to reduce peak loads.

In addition, we are promoting our own environmental activities, such as the Challenge CN Committee, to raise awareness of energy conservation among all employees and reduce CO_2 emissions through the participation of everyone.

Waste reduction and recycling

Our factory has achieved a 100% recycling rate and zero landfill, and we will continue to do so in the future. We will also actively promote the conversion of waste into valuable resources and make every effort to reduce industrial waste.

Environmental conservation activities

The plant actively participates in local environmental activities such as clean-up campaigns organized by regional associations, and strives to protect nature.

Other

We aim to become a flexibly responsive plant being able to notice environmental changes by thoroughly promoting 2S activities and actively implementing cleaning activities in tandem with the promotion of 5S activities in the plant.

Water quality (Regulated values: Sewerage Service Act)

Item		Regulated value	Results		
			Maximum	Minimum	Average
pH		5 ~ 9	7.5	6.8	—
BOD		600	59	7	28
COD		—	43	15	26
SS		600	27	2	9
Oil	Animal and vegetable oils	30	6.5	>0.5	2.5
	Mineral oils	5	3.3	>0.5	1.6
Fe		10	1.3	>1.0	>1.0
Total nitrogen		380	19	5	11
Fluorine		8	>0.8	>0.8	>0.8
Boron		10	>1.0	>1.0	>1.0

Unit: mg/L

Precision Spring & Components Division

Ina Plant

Location : Miyada-mura, Kami Ina-gun, Nagano

Products : Wire springs, Precision machined components

Commenced operations : December 1943

Plant Manager:

Fumio Yamamoto

Environmental Outlook and Policies

Ever since this plant, situated in Southern Shinshu Valley between the Southern and Central Alps, commenced operations in 1943, we have retained a constant awareness of our beautiful, natural local environment in our production activities. Under the slogan, "Be a plant that continues to improve so that today is better than yesterday, tomorrow will be better than today, and the day after tomorrow will be better than tomorrow", we are committed to engaging in Kaizen (improvement) activities to ensure that we can attain an even higher level in terms of balancing business activities with conservation of the local and global environment.

FY2023 and FY2024 Initiatives

Reduction in CO_2 emissions (absolute value)

Continued replacement of high CO_2 emitting kerosene engine air conditioners and kerosene heaters with electric air conditioners, continued replacement of exhaust gas combustion equipment at production facilities from LPG to electrification, continued replacement with LED lighting, and other efforts.

Waste reduction and recycling

Although we have already achieved a recycling rate of more than 99%, we are working to reduce wastes by further promoting the dismantling and sorting of complex materials, including the aforementioned reduction of waste through the use of LED lighting and material recycling of plastic waste.

Environmental conservation activities

We patrol the perimeter of the plant to ensure that there is no environmental impact on the area surrounding the plant. Also, we are directing resources to promoting greening on the plant premises.

In addition, we participate in litter collection activities (Tenryu River System Environmental Picnic and Zero Waste Campaign) in cooperation with the local community.

Atmosphere (Regulated values: Air Pollution Control Act)

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5.7 ~ 8.7	7.4	6.5	—
BOD	600	30	>1	6
COD	—	37	>1	10
SS	600	36	>1	8
Oil	5	3.7	>0.5	1.8
Fe	10	>1.0	>1.0	>1.0
Cu	3	>0.3	>0.3	>0.3
Total nitrogen	380	42.2	5	9

Unit: mg/L

DDS (Disk Drive Suspension) Division

Komagane Plant

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

Plant Manager:
Masaru Inoue

Environmental Outlook and Policies

Led by the promotion members, DDS Komagane is promoting plant-wide efforts to reduce CO_2 emissions in order to achieve carbon neutrality. The plant will continue to aim to be an environmentally friendly manufacturing plant so that the future generations can inherit our beautiful natural environment in a healthy state.

FY2023 and FY2024 Initiatives

Reduction in CO_2 emissions (absolute value)

In order to eliminate the use of kerosene for washing tableware in the cafeteria, we installed and began operating a solar water heating system in April 2023. After operating the system for one year, we achieved results better than expected, reducing kerosene consumption by approximately 70% compared to the previous year. We plan to continue exploring options to reduce kerosene consumption by the remaining 30% starting in fiscal year 2024.

Waste reduction and recycling

By continuing to sort wastes, we have maintained a 100% recycling rate. In FY2024, we will continue our efforts to maintain 100% recycling, while also working to reduce the volume of waste.

Environmental conservation activities

Before the COVID-19 pandemic, neighboring companies would gather every May to hold a Tenryu River System Environmental Picnic (cleanup event).

In 2023, the event was held for the first time in about four years, with approximately 55 participants from the DDS Komagane Plant. In 2024, 44 participants took part, making it an opportunity to reflect on environmental conservation.

Other

Due to the cancellation of the above Tenryu River System Environmental Picnic affected by the COVID-19 pandemic, we held a new factory beautification activity.

We continue to hold this event every October and are committed to environmental beautification.

Water quality (Regulated values: Nagano Prefecture Ordinance)

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5.8 ～ 8.6	8.2	7.2	—
BOD	20	9	>1	5
COD	20	8	>1	4
SS	30	7	>1	3
Oil	5	1	>0.5	1
Total phosphorous	16	2	>1.0	2
Total nitrogen	100	4	1	2

Unit: mg/L

Industrial Machinery &Equipment Division

Isehara Plant No. 1 and Plant No. 2

Location : Isehara City, Kanagawa

Products : Semiconductor process components, Pipe support systems, Specialized springs, Security products

Commenced operations : March 1993

Isehara Plant No.1 Plant Manager:
Toshihiko Hanamachi

Isehara Plant No. 2 Plant Manager:
Kenichi Akao

Environmental Outlook and Policies

At our plant, we will continue to develop and manufacture environmentally friendly and 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 cutting CO_2 emissions, and reduction of waste and environmentally hazardous substances that impart environmental impact.

FY2023 and FY2024 Initiatives

Reduction in CO_2 emissions (absolute value)

In FY 2023, CO_2 emissions totaled 3,243 tons, a decrease of 1,045 tons (24%) compared to the previous year, achieving a reduction in emissions of over 21% of the decrease in internal sales. At the Plant No.1, measures included reducing standby power consumption of spray coating machines and upgrading to high-efficiency air conditioning systems. At the Plant No.2, initiatives such as improving production efficiency of TERA and reducing standby power consumption of air conditioning systems were implemented, resulting in tangible CO_2 reduction outcomes.

In FY2024, we will work to reduce CO_2 emissions by improving the yield of thermal spray products at Plant No. 1. At Plant No. 2, we will install a solar power generation system. We estimate that this will cover approximately 35% of the electricity consumption at Plant No. 2 in FY2023.

Waste reduction and recycling

The Plant No. 1 continues to reuse cleaning fluids used in large quantities, while the Plant No. 2 continues to reuse paint solvents. In addition, to improve the efficiency of waste transportation, we continue to reduce the volume of cutting chips and waste plastics.

We have achieved a 100% recycling rate for waste separation and recycling for 17 consecutive years. In addition, we are planning to separate water from water-soluble cutting oil in order to reduce waste oil.

Environmental conservation activities

At Isehara Plant, we are working to improve environmental performance through resource conservation, energy conservation, waste reduction, reduction of environmentally harmful substances, and promotion of recycling, with the cooperation of all employees and stakeholders.

Water quality (Regulated values: Isehara City Sewerage Ordinance)

Item		Regulated value	Results		
			Maximum	Minimum	Average
pH		5.0 ～ 9.0	8.5	7.7	8.1
BOD		600	470	70	216
Oil	Animal and vegetable oils	30	21	1	7
	Mineral oils	5	1	1	1
Fe		3	0.2	<0.1	<0.1
Zn		1	0.1	<0.1	0.1
Mn		1	<0.1	<0.1	<0.1
Pb		0.1	0.01	0.01	0.01

単位：mg/L

Industrial Machinery &Equipment Division

Miyada Plant

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

Plant Manager:
Naoya Kida

Environmental Outlook and Policies

This plant was newly constructed in March 2019 on the same site as the Komagane No. 2 Plant. It serves as a mass production plant for environmentally friendly high-precision joining products produced at Isehara Plant No. 1. From FY2022, the Miyata Plant established its own environmental management system, we will utilize IoT to reduce our environmental impact and promote a community-based recycling-oriented society with all employees, based on Global Environmental Activities Guidelines and Global Environmental Activities Plan.

FY2023 and FY2024 Initiatives

Reduction in CO_2 emissions (absolute value)

Energy use at the plant comprises 99.5% electric power and 0.5% water, thereby making us an all-electric powered plant. The building for the plant expansion was completed in February 2024, and we are currently installing equipment and preparing for start-up.

In addition, we have installed solar power generation systems on the roofs of the existing plant buildings and the expanded plant area. Furthermore, we have implemented energy-saving measures such as energy-efficient compressors (water-circulating inverter units and number control), skylights, LED lighting in the plant, power monitoring monitors, and demand control (vacuum furnace) to actively reduce CO_2 emissions.

Waste reduction and recycling

We have maintained a 100% recycling rate in FY2023.

Environmental conservation activities

In FY2023, we held the Tenryu River System Environmental Picnic for the first time in four years (May 20) and picked up trash around the factory. We also held the event on May 18, 2024.

Water quality (Regulated values: Nagano Prefecture Ordinance)

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5.8 ～ 8.6	7.7	6.2	—
BOD	20	8	>1	4
SS	30	16	>1	6
Oil	5	1.3	>0.5	0.8
Cu	3	>0.3	>0.3	>0.3
Total phosphorous	16	7.6	>1.0	4.0

単位：mg/L

Industrial Machinery &Equipment Division

Komagane Plant

Location : Komagane-shi, Nagano

Products : Specialized polyurethane foam products, Metal substrates

Commenced operations : December 1981

Plant Manager:
Kenji Obara

Environmental Outlook and Policies

Situated in a beautiful natural environment, our plant develops and produces functional urethane products and insulated metal substrates (IMS).

Due to the expansion of our metal substrate business, we will construct a new production building. We will construct an environmentally friendly building and proceed with preparations for business expansion. With the expansion of our business, energy consumption will continue to increase in the future, but we will work together to reduce energy consumption by pooling the wisdom of all our employees.

Recognizing global environmental conservation to be a common issue, all plant personnel are engaged in promoting initiatives for realizing a recycling-oriented society and carbon neutrality.

FY2023 and FY2024 Initiatives

Reduction in CO_2 emissions (absolute value)

We use kerosene boilers as a heat source for production ovens and for humidity control in clean rooms. As part of our efforts toward electrification, we have conducted a pilot operation of an electric boiler. Based on operational data, we will implement equipment replacement plans in a phased manner toward electrification. During equipment replacement, we will adopt high-efficiency equipment to reduce CO_2 emissions. In the new production building, we will install solar power generation systems and use high-insulation materials to reduce environmental impact. Construction is progressing as planned toward completion by March 2026.

Waste reduction and recycling

In FY2024, we will continue our efforts to maintain a 100% resource recycling rate. We will also work to reduce waste by reducing quality defects. We will thoroughly manage auxiliary materials used in the manufacturing process and implement reduction measures.

Environmental conservation activities

As one of our community contribution activities, we participated in the Tenryu River System Environmental Picnic on May 18. A total of 135 people, including employees and their families, participated in picking up trash around the plant. We plan to hold another event in October and will continue our environmental conservation activities to beautify the surrounding area.

Atmosphere (Regulated values: Air Pollution Control Act)

Substance	Equipment	Regulated value	Results
NOx	Hot water boiler	180	40
Dust	Hot water boiler	0.3	>0.007
SOx	Hot water boiler	—	>0.001

NOx Unit: ppm Dust Unit: g/Nm^3 SOx Unit: Nm^3/h

Water quality (Regulated values: Nagano Prefecture Ordinance) Factory Building 1

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5.8 ~ 8.6	8.1	7.2	—
BOD	20	1	>1	>1
COD	20	1	>1	>1
SS	30	2	>1	>1
Oil	5	1.4	>0.5	0.9

Unit: mg/L

Water quality (Regulated values: Nagano Prefecture Ordinance) Factory Building 2

Item	Regulated value	Results		
		Maximum	Minimum	Average
pH	5.8 ~ 8.6	7.7	6.5	—
BOD	20	20	4	12
COD	20	10	5	8
SS	30	5	> 1	2
Oil	5	3.4	>0.5	1.5
Fe	10	> 1	> 1	> 1
Cu	3	0.3	>0.3	>0.3
NH_4^+	100	1.9	1.1	1.5

Unit: mg/L

Industrial Machinery &Equipment Division

Yasu Plant

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

Plant Manager:
Hiroshi Kaneko

Environmental Outlook and Policies

Our plant develops and manufactures mechanical multilevel parking systems as well as other mechanical components under the slogan of reducing environmental loads. 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 around Lake Biwa to later generations.

FY2023 and FY2024 Initiatives

Reduction in CO_2 emissions (absolute value)

We installed a new compressor (7.5 kW inverter-controlled) and reduced CO_2 emissions by 2.2 tons per year. Through energy-saving activities, we reduced CO_2 emissions by 5.3 tons per year by leveling the operating hours of laser processing machines according to the schedule.

Waste reduction and recycling

By introducing oil-water separators, we have reduced the amount of waste water from compressors by 55%. In addition, through enhanced sorting and re-education, we have maintained a 100% recycling rate.

Environmental conservation activities

We have concluded an environmental agreement with the city and monitor odors, groundwater, vibrations, and noise around our plant.

In addition, as part of environmental accident prevention training organized by the prefecture, factory employees participate in classroom training on reporting accidents and practical training on preventing the spread of water pollution accidents as part of environmental conservation activities.