Environmental Management

In committing the entire group to the Nikon Basic Environmental Management Policy and engaging in effective environmental preservation through its environmental management system (EMS), the Nikon Group aims to become an environmentally harmonious enterprise that contributes to the development of a recycling-oriented society in all its business activities.

The Nikon Basic Environmental Management Policy

Nikon created the Nikon Basic Environmental Management Policy, which aims to prevent environmental pollution by using resources efficiently and helping to preserve the global environment so that it would be able to pass on a sustainable and healthy environment to further generations.

The Nikon Basic Environmental Management Policy — Revised in April 2010

1. Basic Philosophy
One of the priorities of Nikon (Nikon Corporation and the Nikon Group) is to foster coexistence and co-prosperity in all regions where its business operates across the world, everywhere on Earth, and even in space. This policy is based on the corporate philosophy of Nikon, "Trustworthiness and Creativity." In all our business activities we are committed to combating environmental pollution, making effective use of resources, and contributing to building a recycling-based society, thereby protecting and improving the global environment and passing it on to future generations for the sustainable development of society.

2. Basic Approach
As a responsible company, Nikon is committed to protecting the global environment and to monitoring its impact on the natural environment, including issues related to climate change and biodiversity. Our commitment is based on the recognition that if companies are to continue to develop, it is essential to solve environmental problems, because in the end this will contribute to the survival of humankind.
We will win the trust and support of society by providing high-quality products that are both people- and earth-friendly, and we will introduce activities across Nikon and at our business partners to achieve this.

3. Action Guidelines
(1) We will make every effort to promote reductions of CO_2 and waste emissions, reuse and recycling, while encouraging energy and resource conservation, waste reduction and conscientious waste processing with the goal of creating an environment-conscious recycling society.
(2) We will perform environmental and safety reviews, including those to conserve biodiversity, at every stage of planning, development and design, in order to provide products that fully comply with environmental protection aims.
(3) At every stage of production, distribution, use and disposal, we will actively introduce materials and equipment that are effective in protecting the environment, including conservation of biodiversity, strive to develop and improve technologies in this area, and work to minimize environmental burdens.
(4) We will meet targets for reduction of our environmental burdens and use of harmful substances, and continue to improve our environmental management system through environmental audits and other means.
(5) We will develop and follow a rigorous code of standards, in addition to observing all environmental conservation treaties, national and regional laws and regulations.
(6) We will conduct ongoing education programs to further employee knowledge of environmental issues and promote employee involvement in environmental activities.
(7) We will provide business partners with guidance and information to promote optimal environmental protection activities.
(8) In cooperation with our stakeholders, we will participate actively in the environmental protection programs of society at large, and actively disclose information.

Nikon Environment Symbol

For its environmental protection and improvement activities, the Nikon Group created the Nikon Environment Symbol in 1998.

Nikon Environmental Symbol

Nikon's approach to biodiversity

Corporate activities are closely related to biodiversity.

While we conduct our corporate activities using nature's blessings, including materials, water, and energy, we impact nature both directly and indirectly by generating waste, emitting CO_2, and releasing chemical substances and wastewater.

Nikon Corporation has become a promotion partner in the Declaration of Biodiversity by Nippon Keidanren and revised the Nikon Basic Environmental Management Policy to clearly show its basic approach to biodiversity. We are also engaged in a range of environmental conservation activities to reduce CO_2 emissions, curtail the use of hazardous chemical substances to comply with the RoHS Directive and others, and minimize the generation of waste to achieve zero emissions, including joining and giving support to the AKAYA Project (▶p.45) and the Mt. Fuji Reforestation Project.

We continue to identify what impact our business activities have on biodiversity and enhance our resource recycling-oriented management, cooperate with stakeholders, disseminate the relevant information, and educate employees to protect the natural environment.

Medium- to long-term vision to reduce CO_2 emissions

Among the range of environmental problems, there are increasing concerns about the impact of global warming, and at the Hokkaido Toyako Summit held in July 2008, world leaders declared that they would cut the world's greenhouse gas (GHG) emissions to half the current levels by 2050. In Japan, based on the 15th Conference of the Parties to the UN Framework Convention on Climate Change held in December 2009, the cabinet endorsed an anti-global warming bill in March 2010. In the bill, Japan's medium- to long-term target for CO_2 emissions reduction was clearly stated: to reduce the country's GHG emissions by 25% of the 1990 level* by 2020 and by 80% by 2050, based on establishing a fair framework for CO_2 emissions reductions by the major countries.

We have been implementing measures to reduce CO_2 emissions based on continuously growing our business while protecting the environment. Specifically, we launched a team for the Global Warming Prevention Project in 2007, and now as its successor, the CO_2 Emissions Reduction Subcommittee has been implementing these measures. We will continue to include CO_2 emissions reductions as one of our management priorities and to make better use of natural energy together with the higher energy efficiency of our products throughout their lifecycles as well as in all our business activities. We will do this in line with international consensus and Japan's medium- to long-term targets, thereby contributing to creating a low-carbon society.

We will decide the specific reduction targets to be achieved within and outside Japan in implementing our Environmental Action Plan 2010 (▶p.28 and p.34).

* To be reduced by 30% of the 2005 level

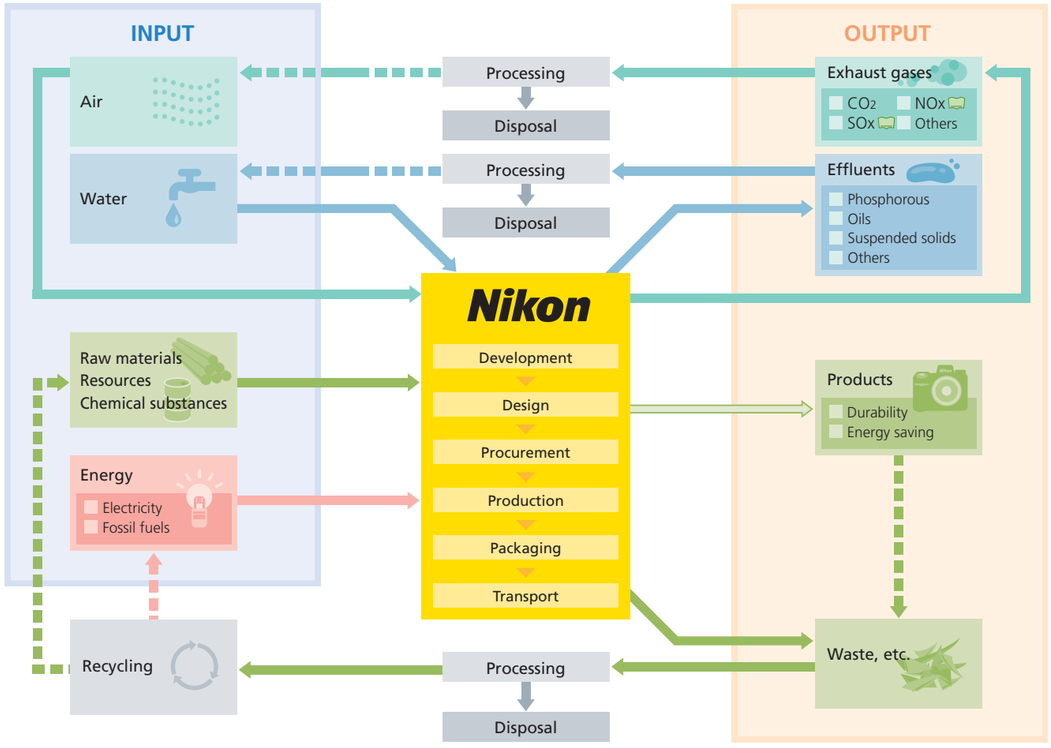
Business Activities and the Environment

Companies can be compared to a living organism in the natural environment: they provide society with products and services and continue to grow while consuming a range of resources and energy and generating a variety of waste.

It is necessary to conserve energy and resources if we want to create a resource recycling-oriented society with nearly zero waste, and to meet this need, companies must urgently identify their own environmental impact and move their environmental management to an even higher level.

The Nikon Group has been making steady efforts to reduce its generation of all kinds of waste and is actively conducting its own unique activities, represented by the development of Eco-glass that has an extremely low environmental impact. We are now focusing our efforts on reducing CO_2 emissions, reducing and managing the use of hazardous chemical substances, and tackling soil contamination. In the future, we will also enhance our biodiversity conservation measures, and we will use the experience and technologies that we have accumulated in our ongoing quest for "Trustworthiness and Creativity" to make the Nikon Group even more environmentally compatible.

Relationship with the Environment in the Nikon Group's Business Operations



Nikon Group's Principal Environmental Loading (for year ended March 31, 2010)

INPUT		Plants	Group manufacturing companies	Units
Energy	Electricity	161,244	99,769	MWh
	Gas	6,294	2,283	(thousand) m^3
	Heavy oil	0	933	kℓ
	Kerosene	0	55	kℓ
	Water	1,264	807	(thousand) m^3
PRTR substances	Hexavalent-chromium	0	2.659	t
	Dichloropentafluoropropane	0	1.233	t
	Toluene	0	2.573	t
	Barium and its water-soluble compounds	0	3.942	t
	Boron and its compounds	0	30.968	t

OUTPUT		Plants	Group manufacturing companies	Units
CO_2 emissions	Electricity	67,400	43,836	t- CO_2
	Gas	13,860	9,261	t- CO_2
	Heavy oil	0	2,529	t- CO_2
	Kerosene	0	137	t- CO_2
PRTR substances emissions	Hexavalent-chromium	0	0	t
	Dichloropentafluoropropane	0	0.826	t
	Toluene	0	2	t
	Barium and its water-soluble compounds	0	0.003	t
	Boron and its compounds	0	0.043	t
Disposal	Amount of waste generated	3,251	2,512	t
	Amount recycled	3,224	1,732	t
	Amount of landfill	8	684	t

Scope of Data
Plants: Nikon Corporation's Ohi, Yokohama, Sagamihara, Kumagaya, and Mito Plants
Group manufacturing companies: Tochigi Nikon, Tochigi Nikon Precision, former Mito Nikon Precision, Sendai Nikon, former Sendai Nikon Precision, Miyagi Nikon Precision, Kurobane Nikon, Hikari Glass (In this report, "major Group manufacturing companies in Japan" refers to these eight group companies.)
Note: For electricity, the "Plants" include Nikon Corporation's head office and for PRTR substances and disposal, the "Group manufacturing companies" include TNI Industry Nagai Factory.

Environmental Management System

Environmental management organization

The Nikon Group established an environmental management organization based on the Nikon Basic Environmental Management Policy, and is implementing group-wide environmental management measures under the leadership of the Environmental & Technical Administration Department. Through this organization, we constantly monitor the enactment and enforcement of the relevant regulations, treaties and standards both within and outside Japan, identify social needs, and respond as the situation requires.

Environmental Management Organization (as of June 30, 2010)

Utilization of ISO 14001 certification

Main achievements for the year ended March 31, 2010
- Expanded the number of sites covered by integrated the ISO 14001 certification at Nikon TEC
- Introduced the Nikon Environmental Management Simplified System to Nikon Systems

Major Targets for the year ending March 31, 2011
- Acquisition of ISO 14001 integrated certification by Nanjing Nikon
- Further introduction of the Nikon Environmental Management Simplified System

The Nikon Group is conducting environmental management activities based on ISO 14001. Currently, we are obtaining integrated certification with the goal of boosting the efficiency of our business operation and spreading our environmental action plan through the entire Group, which is our medium-term goal for environmental activities (see p.1 of the data collection). Moreover, we are promoting the introduction of the Nikon Environmental Management Simplified System consisting of important elements from ISO 14001 to Group companies with low environmental impact.

Through these activities, we are operating the environmental management system group-wide, and have introduced environmental preservation activities such as reducing GHG emissions through reduced energy consumption, effectively using resources (promotion of the 3Rs), and reducing the use of hazardous chemical substances.

Performing internal audits

We regularly conduct internal audits on the Environmental Committee, its subcommittees, and the relevant departments at least once a year to check whether they are complying with ISO 14001 and environmental manuals and how they have set and implemented their environmental targets. Internal auditors are designated from among the registered employees who are approved to have met the necessary conditions for a (chief) auditor by the heads of the Local Environmental Subcommittees.

If an area needing improvement is detected during an internal audit, the audited organization will put corrective measures in place, report the results to the chief auditor, who will then check the implementation.

Environmental Action Plan

The Nikon Group evaluates its efforts against its annual Environmental Targets. Issues are then detected, and revisions are made to overcome those issues. In addition, every year the Environmental Committee devises a new three-year plan called the Nikon Environmental Action Plan (consisting of environmental goals) and Environmental Targets, which are both implemented group-wide.

The table below details the Nikon Environmental Action Plan 2009 (three-year plan), listing the Environmental Targets for the year ended March 31, 2010 (first year of the plan). To the right of each target can be found the achievements for the year and Nikon's self-evaluation.

Year ended March 31, 2010 (results)

In the year ended March 31, 2010, we founded the CO_2 Emissions Reduction Subcommittee as a successor to the team for the Global Warming Prevention Project, thereby establishing a group-wide GHG emission reduction system.

For products, we further implemented measures for energy conservation, including improving their energy efficiency. In addition, we enhanced our chemical substance management system to ensure compliance with the chemical regulations implemented across the globe.

○: Achieved
△: Measures started but not yet achieved
×: Not started

Nikon Environmental Action Plan 2009

	Theme	Environmental targets for the year ended March 31, 2010	Results for the year ended March 31, 2010	Evaluation	See page
Product environment	Energy conservation (prevention of global warming)	(Energy efficiency) ● 30% or more improvement in overall energy efficiency of new products during use, compared with existing products	Improved by 39% (simple average of all the newly released models)	○	p.30
	Reduction in the use of hazardous chemical substances	(Eco-glass usage) ● Increase Eco-glass usage in new optical design to maintain: 100% for consumer products; 98% or more for industrial products; and 98% or more of materials shipped by optical glass division	Consumer products: 100% Industrial products: 98.2% Materials shipped: 99.6%	○	p.10 p.12 p.30
		(Hexavalent chromium, lead, cadmium, mercury, PBB, PBDE, PVC) ● Continue compliance with RoHS Directive Maintain and improve the management system	Improved the management system by revising the management rules	○	pp.12–13 p.30
		(Hexavalent chromium for surface treatment) ● Consumer products: Ensure the appropriate management of the process ● Industrial products: Discontinue use in new product designs	Consumer products: Ensured the appropriate management of the process Industrial products: Discontinued use	○	p.31
	Control of chemical substances	(Control of chemical substances in products) ● Enhance the management system	Built a control system and conducted more surveys on chemical substances	○	p.32
	Green procurement	(Reduction in the use of hazardous chemical substances) ● Consumer products: Maintain and update the system ● Industrial products: Expand green procurement (Application of the Nikon Green Procurement Standards) ● Continue to implement and update the Nikon Green Procurement Standards ● Continue to examine and audit the environmental conservation systems	Consumer products: continued to manage and update the system Industrial products: Expanded green procurement Continued to implement and update the Nikon Green Procurement Standards Continued to examine and audit the environmental conservation systems	○ ○ ○	p.47
	Distribution	(Reduction in CO_2 emissions from physical distribution in Japan) ● Reduce CO_2 emissions per net sales by 15% or more compared with the year ended March 31, 2007	Decreased emissions per net sales by 9.2% (compared with the year ended March 31, 2007)	△	p.33
Workplace environment	Energy conservation (prevention of global warming)	(Reduction in GHG emissions [CO_2 emissions from energy use]) ● Reduce total CO_2 emissions from Nikon Corporation and major Group manufacturing companies in Japan to 123,000 tons or less ● Reduce CO_2 emissions per net sales by two Group manufacturing companies in Asia by 10% (compared with the year ended March 31, 2006) (Total CO_2 emissions: 66,000 tons)	Decreased total CO_2 emissions to 119,000 tons CO_2 emissions per net sales increased by 7.7% compared with the year ended March 31, 2006 (Total CO_2 emissions: 75,000 tons)	○ △	p.34
	Waste reduction	(Zero emissions system) ● Prepare to establish a system at two Group manufacturing companies in Asia (Waste reduction) ● Reduce waste by 20% (compared with the year ended March 31, 2006) at Nikon Corporation and Group manufacturing companies in Japan	NTC: Now building the system; NIC: Completed building the system 21.4% reduction	○ ○	p.36
Others	Environmental Management System (EMS)	(ISO 14001 integrated certification) ● Encourage the acquisition of integrated certification	The number of sites that acquired integrated certification increased at Nikon TEC Nanjing Nikon started building an EMS	○	p.26
	Life Cycle Assessment (LCA)	(Gauge environmental impact using LCA) ● Collect data about site activities on a trial basis	Collecting some of the data and examined the problems	△	p.30

Year ending March 31, 2011 (targets)

In this fiscal year, we will implement group-wide measures to further reduce emissions of GHG under the leadership of the CO_2 Emissions Reduction Subcommittee.

As part of the measures, we have already revised the Nikon Basic Environmental Management Policy to clearly show our approach to biodiversity and also included biodiversity in the themes for the Environmental Action Plan to foster biodiversity conservation.

We have removed "Eco-glass usage," which was included under the theme "Reduction in the use of hazardous chemical substances," from the Environmental Action Plan 2010 because we have already achieved high Eco-glass usage rates both in our consumer and industrial products. We will continue to maintain the high rates.

Voice

Fulfilling Our CSR by Achieving the Environmental Action Plan

In the past, our main corporate responsibility was limited to implementing anti-pollution measures only in the areas where we operated, but now we are required by society to implement measures under the Nikon brand beyond national boundaries, including measures to establish a low-carbon society and manage the hazardous chemical substances used in our products. The Environmental Action Plan shows the specific measures we take to meet the requirements, and I believe we can fulfill our CSR by attaining the targets set in the Plan.

Hironori Nakano
Manager
Environmental Administration Section
Environmental & Technical Administration Department
Business Administration Center
Nikon Corporation

Nikon Environmental Action Plan 2010

	Theme	Medium-term environmental targets	Targets for the year ending March 31, 2011
Product environment	Energy conservation (prevention of global warming)	(Energy efficiency) ● Improve the energy efficiency of newly released products during use by 15% or more compared with existing products	Improve energy efficiency by 25% or more as a simple average of all new models released
	Reduction in the use of hazardous chemical substances	(Hexavalent chromium, lead, cadmium, mercury, PBB, PBDE, PVC) ● Continue compliance with the RoHS Directive and maintain and improve the management system	Continue compliance with the RoHS Directive and maintain and improve the management system
		(Hexavalent chromium for surface treatment) ● Consumer products: Ensure appropriate management of the process ● Industrial products: Discontinue use in new product designs	Consumer products: Ensure appropriate management of the process Industrial products: Discontinue use in new product designs
	Control of chemical substances	(Control of chemical substances in products) ● Maintain and improve the management system	Strengthen the management system
	Green procurement	(Reduction in the use of hazardous chemical substances) ● Maintain and update the system for consumer products and expand green procurement for industrial products (Application of the Nikon Green Procurement Standards) ● Maintain and update the standards ● Continue to examine and audit the environmental conservation systems	Consumer products: Maintain and update the system Industrial products: Expand green procurement Maintain and update the Nikon Green Procurement Standards Continue to examine and audit the environmental conservation systems
	Distribution	(Reduction in CO_2 emissions from physical distribution in Japan) ● Reduce CO_2 emissions per net sales by 22% or more compared with the year ended March 31, 2007	Reduce CO_2 emissions by 14% or more compared with the year ended March 31, 2007
		(Collection of data on CO_2 emissions from international distribution) ● Expand the collection targets (Asia, Europe, and the United States)	Conduct surveys on the current situation in Asia
Workplace environment	Energy conservation (prevention of global warming)	(Reduction in GHG emissions [CO_2 emissions from energy use]) ● Total CO_2 emissions from Nikon Corporation and Group manufacturing companies in Japan: Reduce to 126,000 tons or less ● CO_2 emissions per unit of real output from two Group manufacturing companies in Asia*: Reduce by 12% (compared with the year ended March 31, 2006) (Total CO_2 emissions: 110,000 tons)	Reduce total CO_2 emissions to 128,000 tons or less Reduce emissions per unit of real output by 5%* (compared with the year ended March 31, 2006) (Total CO_2 emissions: 93,000 tons)
	Waste reduction	(Zero emissions system) ● Nikon Corporation, Group manufacturing companies in Japan, and two Group manufacturing companies in Asia: Maintain the system (Waste reduction) ● Waste from Nikon Corporation and Group manufacturing companies in Japan: Reduce by 25% (compared with the year ended March 31, 2006)	Establish the system at Hikari Glass and a Group manufacturing company in Asia (NTC) Reduce waste by 23% compared with the year ended March 31, 2006
Others	Environmental Management System (EMS)	(ISO 14001 integrated certification) ● Expand the number of sites acquiring certification	Expand the number of sites acquiring integrated certification
	Biodiversity conservation	● Plan and implement specific measures and themes	Clarify the policy and establish a promotion system
	Life Cycle Assessment (LCA)	● Promote LCA (by raising awareness and education) ● Collect data	Collect data

Note: Medium-term environmental targets are for the year ending March 31, 2013.

*__In February 2011, the CO_2 emissions targets for the two Group manufacturing companies in Asia were changed__ from those based on net sales to those based on real output (in-house criteria) in order to reflect the productivity of the manufacturing facilities and eliminate the influence of exchange rate fluctuations. The necessary calculations were made using the exchange rate for the baseline year (the year ended March 31, 2006).

Environmental Education, Awareness Raising, and Internal Communication

Main achievements for the year ended March 31, 2010

- A total of 220 employees completed the internal auditor training course and 24 completed the skill-up training course.
- The intranet "Ecology Net" started operation.
- The Nikon Environmental Commendation Program was introduced.

The Nikon Group has been conducting a range of environmental education and awareness-raising activities for all its employees and for some of its business partners in order to raise the standards of the Group's environmental conservation activities.

Training of internal auditors

To maintain and improve the environmental management system in use, it is critical to maintain and improve the quality of internal audits. The Nikon Group therefore provides employees with an internal auditor training course twice a year (to be increased to four times a year in the next year) and an internal auditor skill-up training course four times a year. We also conduct a training session to ensure compliance with the relevant laws and regulations at least twice a year. At these training seminars, employees who are externally qualified auditors give lectures. The lecturers support the establishment of environmental management systems (EMSs) and give lectures both inside and outside the Nikon Group, which in turn helps them improve their own skills.

General education

In Japan the Nikon Group provides employees with education matched to their positions, groups, workplaces, and departments based on its educational training plan for the environmental management system. In the training held for new employees in the year ended March 31, 2010, employees were educated about environmental commitment in business activities and the Nikon Group's products under the theme "corporate activities and the environment."

We also give seminars and lectures to general employees in June, which is designated as "Environment Month," and at other opportunities, providing them with the necessary information and making them more aware of and more interested in our environmental measures. In Environment Month in 2009, we invited a lecturer from IBM Japan, who introduced the environmental measures of the company. We also held lectures in which our internal lecturers explained the life cycle assessment (LCA) of products. In December, which was designated as the "Month for the Prevention of Global Warming," we invited a lecturer from Tokyo Gas who spoke about "eco-cooking."

Seminar on relevant laws and regulations

Training seminar for new employees

Providing employees with environmental information

The Nikon Group began operating its intranet "Ecology Net" in the year ended March 31, 2010. We dispatch environmental information to employees from time to time through this comprehensive environmental website for the Nikon Group, which is intended to promote environmental activities and information sharing across the Group: this includes information on the environmental management system, hazardous chemical substances, the visualization of power consumption, anti-global warming measures that can be taken on a daily basis, and various other kinds of information related to our environmental activities.

Environmental Commendation Program

To encourage employees to take more measures to protect the environment, the Nikon Group introduced the Nikon Environmental Commendation Program in the year ended March 31, 2010. Under the program, workplaces, groups, and individuals who have achieved outstanding results in their daily environmental activities are commended once a year and given prizes in recognition of their environmental contributions. The commendation ceremony is held in Environment Month (June).

Encouraging employees to commute by bicycle (Nikon U.K. Ltd.)

When a company wants to introduce more environmental measures, it is important to raise the environmental awareness of individual employees. Nikon U.K. Ltd. encourages employees to commute by bicycle, a form of transportation that does not generate CO_2, is not noisy, and is relatively unaffected by traffic jams. The office has a shower room, and the company plans to expand the space for parking bicycles.

Employee commuting by bicycle (Nikon U.K. Ltd.)

Product-related Activities

To promote environmental friendliness and legal compliance through a product's lifecycle, we have introduced Nikon Product Assessment for the development and design of all products, and are making efforts to recycle waste products and packaging materials and reduce our environmental impact during physical distribution.

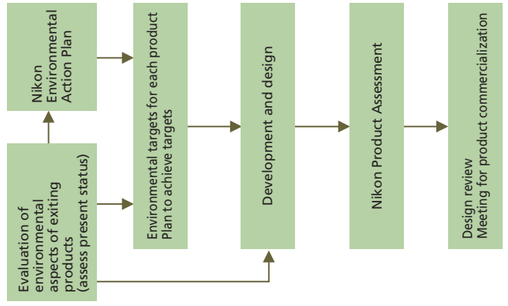
Eco-friendly Product Development

Environmentally friendly product development system

The Nikon Group developed an original system for managing environmentally friendly product designs. In operating this system, the Group has continuously strengthened the contents of the Nikon Environmental Action Plan and Nikon Products Assessment (detailed below).

Under this system, we are improving the energy efficiency of our products, saving resources, making maximum use of Eco-glass , lead-free solder and hexavalent chromium-free plating, and substantially reducing the use of other hazardous chemical substances to produce a greater number of even more eco-friendly products.

Management system flow for eco-friendly product design



Nikon Product Assessment

The Nikon Group established the Nikon Product Assessment system in 1995 with a view to minimizing the environmental impacts of its products throughout their lifecycles. Since then we have been assessing all the products being developed for further improvement.

We have been revising and enhancing the assessment items and criteria, and are now using version 8 of the system.

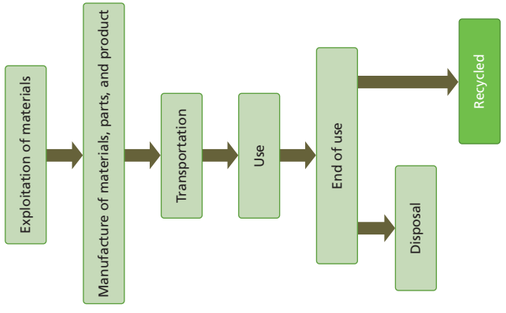
We have already assessed 991 products and units on a -100 to +100 scale by checking the degree of improvements made to them. The average score over the past 15 years was +32.2 points. While we are continuing to make the criteria much stricter; the average score for the recent seven years is +52.0 points, higher than before, which demonstrates that remarkable environmental improvements have been made to our products.

Features of the Nikon Product Assessment System

In a bid to stay ahead of environmental regulations and deteriorating global environmental problems, we set our own standards with our products' properties in mind. We determine the details through full-scale discussions between product developers, material engineers, and other experts.

- Mandates product assessment in the development stage
- Requires continuous improvement in assessment scores from one model to the next
- Supports designers by offering relevant documentation and references
- Continues to reduce product mass and volume and the number of parts used in a product
- Improves energy efficiency based on the Nikon energy efficiency formula
- Pursues longer product life and simpler repair procedures
- Raises consumer awareness (for the reduction and appropriate management of waste consumables)
- Simplifies recycling procedures
- Discontinues or reduces the use of hazardous substances
- Uses Eco-glass in the optical system (►p.10, 12, 27, and 28)
- Uses lead-free solder on electronic circuit boards (►p.31)
- Adopts hexavalent chromium-free surface treatment technologies (►p.27, 28, and 31)
- Ensures compliance with environmental regulations
- Makes overall assessments

Ordinary lifecycle of a Nikon product



Reducing Hazardous Substances in Products

Main achievements for the year ended March 31, 2010

- Consumer products: Maintained 100% use of lead-free electronic circuit boards in all newly released products
- Industrial products: lead-free solder used for 95% of new electronic circuit boards
- Ensured appropriate management of the surface treatment process

As part of efforts to reduce the use of hazardous substances in Nikon products, we make use of lead-free soldering technologies and surface treatment technologies that do not use heavy metals, such as hexavalent chromium-free plating. In addition, we are introducing chemical analysis techniques to our quality assurance departments.

Full-scale adoption of lead-free solder

The Nikon Group has established a lead-free soldering system with the leadership of the electric technology departments of the Yokohama Plant and Sendai Nikon and with cooperation from their product development and manufacturing departments, other Group companies, and our business partners.

We also have a course on lead-free soldering as part of our in-house training and technical certification system, in which employees acquire manual soldering skills. As of March 31, 2010, we have used this course to train over 1,140 instructors and certified workers, including at manufacturing bases outside Japan.

Moreover, we increased the use of lead-free tin-silver-copper solders, which represent a standard solder type used in the industry.

We have strived to increase the use of lead-free solders through these measures. In the year ended March 31, 2010, we maintained 100% use of lead-free electronic circuit boards in all our new consumer products, including the digital SLR D5000. Also in industrial products (steppers and scanners, microscopes, surveying instruments, and others), we increased the rate of lead-free circuit boards in new ones to 95%.

Image processing board for a confocal microscope

Motor control board for an immersion scanner

Use of hexavalent chromium-free technology in surface treatment

The surface treatment department of the Yokohama Plant reviewed its technologies and processes for chromate treatment and chrome plating, and discontinued the use of highly hazardous hexavalent chromium at the end of 2004.

Using the progressive results and experiences gained through such activities, we are actively employing hexavalent chromium-free technology in the surface treatment of all Nikon products.

Surface treatment poses a range of difficult issues because a variety of treatments, including coating, plating, and chemical conversion, are done on multiple components under different work conditions. In light of this fact, we established strict technological standards for the use of lead, cadmium, and mercury. We are working to totally discontinue the use of heavy metals and ensure appropriate management of the process.

Chemical analysis techniques used by the quality assurance departments

The Nikon Group plans to discontinue the use of hexavalent chromium, lead, cadmium, mercury, PBB, PBDE, PVC, and other hazardous chemical substances in its products as far as technically possible. Nikon products consist of materials and components procured from manufacturers and trading companies located worldwide which are then processed and assembled by a number of manufacturers through a complex supply chain. To completely discontinue the use of hazardous substances throughout this production process, in addition to establishing a green procurement system (►p.47), it is essential to check the use of these substances also in the procured materials through chemical analysis. We have therefore introduced chemical analysis techniques to our quality assurance departments, which make the necessary checks on each product at major stages in the production process. We also educate a large number of engineers on analysis technologies and related know-how to prevent hazardous chemical substances from leaking into Nikon products.

Recycling of Used Products

Battery recycling

In Japan, Nikon Corporation has been cooperating with JBRC and a number of other companies to collect end-of-life secondary batteries, including those used for Nikon digital cameras, from users for recycling.

Recycling of used Nikon products

Under the WEEE Directive, European countries have been enacting their own laws and establishing systems for the collection and recycling of used electronic products. Following this trend, since 2005 the Nikon Group, led by a subsidiary in the Netherlands, has been preparing nation-specific measures to meet its collection and recycling obligations for digital cameras and other Nikon products. We have established a collection and recycling system in more than 25 countries, registering with local collection organizations. The Nikon Group is keenly aware of the importance of collecting and recycling used products and plans to continue taking appropriate measures in the future.

EU recycling mark

Response to New Regulations on Hazardous Chemical Substances

Main achievements for the year ended March 31, 2010

- Established a management system for hazardous chemical substances
- Started a survey on substances of very high concern (SVHCs)

Major targets for the year ending March 31, 2011

- Strengthen the management system for hazardous chemical substances and start to build the necessary infrastructure
- Continue a survey on SVHCs including newly added ones

The Nikon Group has been working to comply with the REACH regulation enforced in Europe in June 2007.

REACH is the regulation on registration, evaluation, authorization, and restriction of chemicals and will possibly have a great impact on the chemical substance notification systems that is being implemented in the world. This regulation was enforced against the backdrop of the progress made to international frameworks for the appropriate management of chemical substances, including the adoption of the Johannesburg Plan of Implementation and the SAICM. Following this international trend, the Nikon Group is committed to complying with the REACH regulation for the maintenance of human health and environmental protection.

The REACH regulation applies not only to substances themselves, but also to the products in which they are used. For example, if a product contains an SVHC exceeding a certain level, the manufacturer of the product must provide information about the substance to downstream users and consumers. To meet this requirement without fail, the Nikon Group conducts a survey on the use of SVHCs in its products throughout its supply chain. We are also limiting their use in our products and increasing the use of parts that do not contain SVHCs.

The Nikon Group will continue to conduct surveys on the use of SVHCs in its products throughout the supply chain, while establishing the necessary infrastructures for more efficient management of chemical substances, including an IT management system.

The Nikon Group's basic approach to the REACH regulation is summarized in its declaration on compliance with the REACH regulation, which is posted on its website.

We will continue to take the necessary measures to comply with the new laws and regulations on hazardous chemical substances to be enforced in the world.

Nikon's declaration on compliance with the REACH regulation

http://www.nikon.com/about/csr/environment/products/products_04/

REACH Compliance

EC Regulation No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) entered into force on 1st June 2007. Under REACH, companies operating in the European Union face obligations as manufacturers, importers and downstream users.

The majority of NIKON products, accessories and packaging are considered to be 'articles' under the REACH Regulation. Article 33 of REACH requires companies to provide the recipients of articles, and consumers on request, with sufficient available information to allow the safe use of articles, including, as a minimum, the presence in a concentration of greater than 0. 1% by weight of any substances of very high concern (SVHC) as listed on the REACH initial candidate list issued on 28th October 2008 or later.

NIKON has been working with its supply chain partners to identify the use of any of the SVHC chemicals in the production of NIKON products. Thus far, some cables may contain the following substances on the candidate list:

• Bis(2-ethylhexyl) phthalate (DEHP) (CAS No 117-81-7, EC No 204-211-0)

The products are safe when used as intended, and in accordance with the applicable instructions.

We have asked our suppliers of materials, component and finished products to provide us information on substances concerned in the supplied items.

NIKON will continue to work closely with the supply chain to ensure that all the requirements of REACH are fully implemented.

(Posted on July 9, 2010)

Nikon's declaration on compliance with the REACH regulation

Improving Physical Distribution in Japan

Main achievements for the year ended March 31, 2010

- Reduced the Nikon Group's CO_2 emissions from physical distribution in Japan to 2,016 tons and reduced emissions per net sales by 9.2% against the target of a reduction of 15% or more compared with the year ended March 31, 2007
- Enabled the use of external power sources for all the vehicles possessed by Nikon Business Service
- Conducted in-house training on eco-friendly driving

Major target for the year ending March 31, 2011

- Reduce CO_2 emissions per net sales by 14% or more compared with the year ended March 31, 2007

The Nikon Group is striving to identify its distribution routes including those of major Group manufacturing companies and obtain numerical data on the volume of transportation and CO_2 emissions. In the year ended March 31, 2010, CO_2 emissions per net sales worsened due to global economic recession, and the targets were not achieved.

Modal shift in multimodal transportation

Sendai Nikon was delivering the unit parts of digital cameras to NIC, its manufacturing base in China, by transporting them from Miyagi Prefecture to Narita by truck and then from Narita to Shanghai by air.

To reduce both the cost and environmental impact of this delivery, the company has changed the domestic transportation route to the Miyagi-to-Fukuoka route and also changed the transportation from truck to rail. Moreover, the parts are now transported from Fukuoka to Shanghai by a small ship with low environmental impact. Thus fostering a modal shift in multimodal transportation, the company has achieved both its reduction targets.

Voice

Saving costs and increasing safety by reducing CO_2 emissions

Drivers initially resisted the introduction of digital tachometers, but now they think the device is useful because it gives an audio alert when the driver exceeds the speed limit, which leads to higher fuel economy and safer driving. All our drivers now attend a regular seminar for eco-driving, and if they drive using the acquired skills, annual fuel costs can be reduced by several hundred thousand yen. Now I would like to introduce low-emission eco-cars and make other improvements to our equipment.

Yukio Ushijima
Group Leader, Transport Group
Logistics Survice Division
Nikon Business Service Co., Ltd.

Promoting idling stop

When transporting IC steppers and scanners and other devices by vehicle, it is necessary to strictly control the cargo room temperature by the use of in-vehicle heating, ventilating, and air-conditioning (HVAC) equipment, for which the engine needed to be kept running even while the vehicle was stopped. Now, however, there is no need for idling within the premises of our factories, where it has been made possible to power the equipment by the use of external sources. In the year ended March 31, 2010, all the vehicles possessed by Nikon Business Service were equipped for the use of external power sources.

Externally powered vehicle

Implementing modal shift

The Instruments Company is shifting from truck deliveries to railway transport, which causes lower environmental impact. The company is now gradually increasing the use of railways and will further increase the rate for products that meet the conditions for this mode of transport.

Low-pollution vehicles

The Kumagaya Plant is using three natural gas-fueled buses as commuter buses with the aim of reducing CO_2 emissions.

Nikon Business Service is also gradually replacing its transportation trucks with fuel efficient vehicles and will promote their replacement with natural gas-powered ones.

Packaging Measures

Nikon Corporation formulated its Environmental Policy Regarding Packaging Materials in May 1998 and (revised it in June 2000) to reduce the use of packaging materials for its products.

Based on this policy, we have been engaging in various efforts to boost the loading efficiency of physical distribution. Packaging can be further downsized by reviewing the size of product boxes so that they can be efficiently loaded onto trucks, making user manuals less bulky, and switching from conventional containers to pallets to eliminate the need for outer packaging.

In addition, we are making efficient use of recycled resources. For example, we employ a type of insertion packaging that enables the cushioning material and cardboard box to be easily separated, and use molded pulp as cushioning materials for some products.

Workplace-related Activities

To prevent global warming and move toward a resource-recycling society, the Nikon Group is striving to ensure that all of its sites save energy, recycle waste, and protect the local environment.

Energy Saving

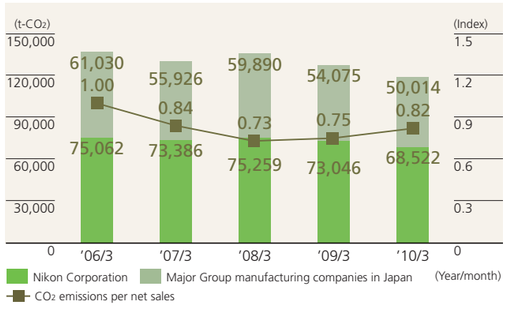
Main achievements for the year ended March 31, 2010

- Reduced total CO_2 emissions to 119,000 tons against the target of 123,000 tons or less (Nikon Corporation and Group manufacturing companies in Japan)
- CO_2 emissions per net sales increased by 7.7% against the target of a 10% reduction from the year ended March 31, 2006
  Total CO_2 emissions came to 75,000 tons against the target of 66,000 tons (two Group manufacturing companies in Asia)

Major targets for the year ending March 31, 2011

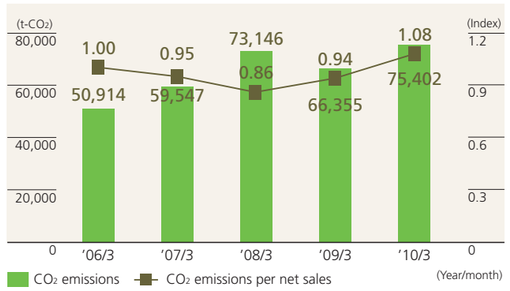
- Reduce total CO_2 emissions to 128,000 tons or less (Nikon Corporation and Group manufacturing companies in Japan)
- Attain the target of reducing total CO_2 emissions to 93,000 tons (two Group manufacturing companies in Asia)

2006–2010 CO_2 Emissions from Nikon Group Companies in Japan



* CO_2 emissions in the year ended March 31, 2006 ('06/3) were calculated using the emission factor for the fiscal year, and those in other fiscal years were calculated using the factor for the year ended March 31, 2007 ('07/3).
* The baseline year for the index of emissions per net sales is set at '06/3.

2006–2010 CO_2 Emissions from Group Manufacturing Companies in Asia



* Scope of data: NIC and NTC
* CO_2 emissions were calculated using the local emission factor for the year ended March 31, 2004 ('04/3).
* The baseline year for the index of emissions per net sales is set at '06/3.

The Nikon Group is working continuously to reduce its CO_2 emissions by measures that include increasing the efficiency of HVAC and lighting equipment, improving production activities, managing the use of lighting and OA devices, and making more use of natural energy.

In the year ended March 2010, we were able to achieve our total CO_2 emissions reduction targets in Japan, but the Group manufacturing companies in Asia were unable to achieve their targets for CO_2 emissions per net sales due to a market downturn, stronger yen, and the launch of new building operation.

Installing highly-efficient devices

Tochigi Nikon Precision introduced a steamless HVAC system in its clean room and started full-scale operation in May 2009. While steam generated by burning LPG and heavy oil was used for HVAC equipment in the past, the new system uses a heat pump, which generates heat efficiently, and evaporation-type humidifier. As a result of installing this system, the company reduced its CO_2 emissions by about 2,265 tons on an annual basis. Outside Japan, Nikon GmbH has been introducing cogeneration systems for cooling and heating its offices since 2009, reducing its power consumption by about 30%.

Heat pump chiller equipment of the steamless HVAC system (Tochigi Nikon Precision)

■ Using natural energy

The Kumagaya Plant started full-scale operation of a solar power generation system in January 2010. Under this research project jointly conducted with New Energy and Industrial Technology Development Organization (NEDO), the plant plans to generate at least 100,000 kWh of power per year, which will result in reducing CO_2 emissions by about 50 tons. Outside Japan, Nikon Europe B.V. concluded an agreement to use green electricity in January 2010. Based on this agreement, all the electricity used by the company (about 700,000 kWh per year) will be obtained from green energy sources. Nikon AG introduced a heat pump system using geothermal heat for heating and cooling its office when it moved the office in 2003.

Certificate for green electricity (Nikon Europe B.V.)


Solar power generation panel (Kumagaya Plant)


Heat pump system using geothermal heat (Nikon AG)

■ Participation in the Climate Savers Computing Initiative

Nikon Corporation has been participating in the Climate Savers Computing Initiative (CSCI) as an affiliate member since October 2008. According to the criteria set by the CSCI, which is dedicated to reducing CO_2 emissions by increasing the energy efficiency of PCs and servers, we are actively introducing more energy-efficient PCs and encouraging the use of power management settings. We completed the installation of power management settings on all our computers that would allow it by June 2009. We also install power management settings on all newly purchased PCs before distributing them to employees.

■ Participating in WWF Earth Hour 2010

The Nikon Group participated in Earth Hour 2010 on March 27, 2010. This worldwide event was organized by WWF to show participants' commitment to preventing global warming by turning off their lights at the same time across the globe. The Nikon Group turned off their neon and outdoor sign lights as well as office lights for one hour from 8:30 p.m. at as many of its sites as possible. Employees also voluntarily turned off their lights at home.

Preventing Air/Water Pollution and Protecting Water Resources

■ Preventing pollution of the air and water

To help preserve air and water quality, the Nikon Group not only abides by applicable laws and regulations, but also established its own voluntary standards for controlling pollutants. Specifically, we regularly measure pollutants released into the air and water and inspect equipment such as boilers and wastewater processing systems periodically to ensure safety at each of our sites (▶p.3-8 of the data collection).

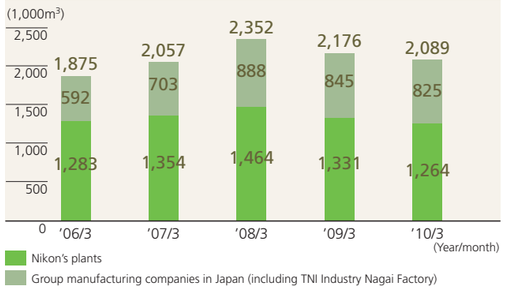
The Mito Plant switched the fuel used in its three existing boilers from heavy oil to liquefied petroleum gas (LPG) in order to reduce CO_2 emissions, and this has resulted in eliminating the release of SOx and reducing emissions of dust and NOx.

■ Protecting water resources

The Nikon Group's manufacturing sites are expanding their businesses and transforming their business structures. Since the year ended March 31, 1999, when environmental management systems were introduced, the sites have been promoting the reuse of wastewater from production processes and curbing their water consumption through activities that are participated in by all employees (▶p.8 of the data collection).

For example the Ohi Plant is saving water by using stored rainwater for flushing toilets at the West Building, replacing water-cooled HVAC devices with air-cooled ones and also dishwashers used in the canteen kitchen with smaller ones, improving the wastewater treatment facilities, and installing water-saving tap plugs.

2006–2010 Water Usage



* The totals are not always identical to the sum of the constituents because of rounding.

Toward Zero Emissions

Main achievements for the year ended March 31, 2010

- Maintained a level 1 zero emissions system (Nikon's plants and major Group manufacturing companies in Japan excluding Hikari Glass)
- Made preparations for establishing a zero emissions system (Hikari Glass, NTC) and completed establishment (TNI Industry Nagai Factory, NIC)
- Reduced waste by 21.4% exceeding the target of 20% below the year ended March 31, 2006 (Nikon's plants and major Group manufacturing companies in Japan)

Major targets for the year ending March 31, 2011

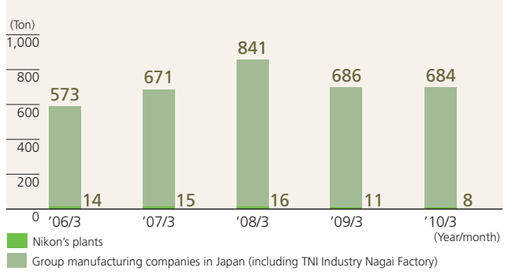
- Maintain a level 1 zero emissions system (Nikon's plants and Group manufacturing companies in Japan)
- Establish a zero emissions system (Hikari Glass, NTC)
- Reduce waste by 23% compared with the year ended March 31, 2006 (Nikon's plants and Group manufacturing companies in Japan, excluding Hikari Glass)

In the year ended March 31, 2009, the Nikon Group introduced level-specific indicators to the definition of zero emissions. (Before their introduction, "zero emissions" was simply defined as "final landfill disposal amounting to less than 1% of total waste volume.")

Level 1: Final landfill disposal rate: less than 1%
Level 2: Final landfill disposal rate: less than 5%
Level 3: Final landfill disposal rate: less than 10%
Level 4: Final landfill disposal rate: less than 20%

So far, a total of 13 sites belonging to Nikon Corporation and Group manufacturing companies in Japan (excluding Hikari Glass) have achieved zero emissions level 1 (▶p.2 of the data collection).

2006–2010 Final Landfill Disposal Volumes at Nikon's Plants and Group Manufacturing Companies in Japan



■ Progress at Nikon Corporation

The total amount of waste generated by Nikon Corporation decreased by 12.5% year-on-year in the year ended March 31, 2010, helped by a decrease in the production amount. The resource recycling rate was 99.2% and the final landfill disposal rate improved to 0.25%, enabling the company to maintain its level 1 zero emissions system (▶p.2 of the data collection).

As an example of onsite improvements, the Sagamihara Plant decided to return the deposition materials used in the vapor deposition processing of lenses to the manufacturers of the materials for reuse, instead of just discarding them. Moreover the plant began selling waste semiconductor parts to recycling companies, thereby promoting both the recycling of resources and cost savings.

■ Progress made at Group manufacturing companies in Japan

The manufacturing companies reduced their total amount of waste by 2.3% year-on-year in the year ended March 31, 2010, helped by a decrease in their production amount. Their recycling rate was 68.9% and final landfill disposal rate was 27.2%, but six sites of Group manufacturing companies in Japan, excluding Hikari Glass, were able to maintain/establish their level 1 zero emissions systems (▶p.2 of the data collection). In addition, the Akita Plant of Hikari Glass succeeded in recycling waste Eco-glass while minimizing any increase in related costs. Specifically, the plant has separated Eco-glass from waste glass to be sent to landfill and commissioned its treatment to a waste recycling company that is processing waste glass into granules (for use as roadbed materials, etc.).


Before processing: Eco-glass (Hikari Glass Akita Plant)


After processing: Granules made from recycled glass (Commissioned to a waste recycling company)

Voice

Reducing the annual generation of sludge by 200 tons to zero

The Ohi Plant annually released 200 tons of sludge from its facilities to treat wastewater from the canteen. In October 2009, however, the plant began using bacteria (called Kataoka-kin in Japanese) for the treatment process to reduce the inflow load of wastewater through digestion by the bacteria. This has led to the reduction of sludge discarded as industrial waste to zero. This in turn reduced the annual sludge treatment costs by 620,000 yen and also cut CO_2 emissions from the treatment of wastewater and the treatment and transportation of waste. We will devise further measures to reduce the generation of waste.

Hidetaka Takayama
Ohi Branch Leader, Environmental Administration Section
Environmental & Technical Administration Department
Business Administration Center
Nikon Corporation

Control and Reduction of Chemical Substances in Manufacturing

Main achievement for the year ended March 31, 2010

- Discontinued the use of hazardous chemical substances (in chlorinated organic solvents used for cleaning) at a Group manufacturing company in Asia (NIC).

The Nikon Group manages chemical substances from their purchase and use through to disposal to prevent chemical pollution of the environment and promote safety. For example, Nikon Corporation obtains a material safety data sheet (MSDS) for any new chemical substance being purchased, and urges the workplace where the substance will be used to make a prior assessment of the risks associated with its use. The company then checks the measures taken based on the assessment results and gets its experts to recheck the measures from a professional viewpoint. For the registration, updating, and storing of the MSDS data, the data center within the Ohi Plant manages the operation centrally, with the data made available to employees through the intranet. The Nikon Group strictly controls the use of chemical substances, in particular those of high concern, so as to minimize their use. We are conducting further research into alternative substances and continuing our efforts to reduce the risk of chemical contamination to as close to zero as possible.

The Nikon Group's PRTR

The Nikon Group created the Nikon PRTR Guide in March 2000. All of its sites have been using this guide to manage the chemical substances used at their sites, including quantity management from purchase and use through to disposal, and MSDS-based management of safety in handling and disposal. Subsequently, in March 2002 we established a system to make notifications, which had become mandatory by law, by updating the Guide to include a new section (▶p.2 of the data collection).

Progress report on soil contamination remediation at the Ohi Plant of Nikon Corporation

The Ohi Plant completed remediation work for the soil contamination detected in 2007 at the former No. 2 building site at the end of the year, and at the former No. 1 building site in June 2010. The plant is now purifying the underground water by pumping it, and regularly monitors its quality, which it will continue to do in compliance with related laws to ensure that there will be no adverse effects on surrounding areas.

(Background)

In 2007, when some old factory buildings were demolished at the plant to construct new ones, the plant conducted a soil contamination survey in accordance with the Tokyo Metropolitan Ordinance on Environmental Preservation. As a result, some specified hazardous chemical substances were detected at levels beyond the regulatory standards. For example hexavalent chromium was present at up to 3,600 times the standard value, although the affected area was limited and within a building. Trichloroethylene was also detected at a level 1.8 times the standard value around a groundwater inspection hole that had been bored near the perimeter of the plant.

Shortly after this discovery, Nikon Corporation notified the Environment Bureau of the Tokyo Metropolitan Government and also Shinagawa City and held briefings for local residents. The company has since been implementing remedial measures.

Underground water inspection at the Mito Plant of Tochigi Nikon Precision

The Mito Plant (former Mito Nikon Precision) began purifying the contaminated underground water detected in 2008 by pumping it in February 2009, and has been regularly monitoring the underground water quality. The plant will continue to do this in compliance with related laws to ensure that there will be no adverse effects on surrounding areas.

(Backgrounds)

Former Mito Nikon Precision inspected the quality of the underground water within its premises to check the environmental impact of volatile organic compounds used there in the past. As a result, at several inspection spots, trichloroethylene and hexavalent chromium were detected at levels beyond the regulatory standards (1.8 and 4.8 times the standards, respectively). (These substances were released during the cleaning of machined parts and surface treatment processes.)

Former Mito Nikon Precision promptly reported its findings to Ibaraki Prefecture and Naka City, submitted a remedial plan that complied with the Soil Contamination Countermeasures Act to local governments, and held a briefing for local residents.

Former Mito Nikon Precision merged with Tochigi Nikon Precision on October 1, 2009 and the latter has been continuously working to purify the underground water.