

# Environmental Data

## Acquisition of ISO 14001 certification [Nikon Corporation]

	Company-wide certification	Independent certification	Location
Company-wide certification	Oct. 2004	—	Tokyo
Ohi Plant	(Oct. 2004)	Jul. 1998	Tokyo
Yokohama Plant	(Oct. 2004)	Oct. 1998	Kanagawa
Mito Plant	(Jun. 2005)	Apr. 1999	Ibaraki
Head Office	(Sept. 2005)	—	Tokyo
Sagamihara Plant	(Sept. 2005)	Aug. 1998	Kanagawa
Kumagaya Plant	(Sept. 2005)	Aug. 1998	Saitama

## Acquisition of ISO 14001 certification [Group companies]

	Company-wide certification	Independent certification	Location
Sendai Nikon (Sendai Nikon Precision)	(Apr. 2006)	Mar. 1997	Miyagi
Zao Nikon	(Apr. 2006)	Mar. 1999	Miyagi
Tochigi Nikon (Tochigi Nikon Precision)	(Sept. 2006)	Sept. 1999	Tochigi
Kurobane Nikon	(Sept. 2006)	Dec. 1999	Tochigi
Mito Nikon Precision (formerly Mito Nikon)	(Sept. 2006)	Dec. 1999	Ibaraki
Nasu Nikon	—	Dec. 1999	Tochigi
Aichi Nikon	—	Dec. 1999	Aichi
Hikari Glass	(Nov. 2007)	Mar. 2004 (Akita Plant)	Chiba
Nikon Instech	(Nov. 2007)	Mar. 2004	Tokyo
Nikon TEC	(Feb. 2009)	—	Tokyo
TNI Industry Nagai Factory (formerly Setagaya Industry)	(Nov. 2007)	Nov. 2004	Yamagata
Nikon Vision	(Nov. 2007)	—	Tokyo
Nikon Imaging (China) Co., Ltd.	(Nov. 2007)	Jun. 2005	China
Nikon (Thailand) Co., Ltd.	(Nov. 2007)	Nov. 2006	Thailand
Hikari Glass (Changzhou) Optics Co., Ltd.	(Feb. 2009)	—	China

## Environmental Accounting

### Cost of environmental protection

Unit: millions of yen

	Category	Main activities	Investment	Expenses	Total
Product environment	Product development, energy efficiency, and reduction in use of hazardous chemical substances	Energy-saving design, compliance with REACH Regulations, etc.	—	162	162
	Green procurement	Nikon Green Procurement Standards, etc.	—	16	16
	Packaging & distribution	Eco-friendly driving lessons, use of digital tachometer, etc.	—	2	2
	Product environment subtotal		—	181	181
Workplace environment	Energy saving	Upgrading air-conditioning systems, installation of inverter-equipped equipment, etc.	346	137	483
	Waste reduction	Maintaining zero-emission systems, mass-volume waste reduction, etc.	0	66	66
	Reduction in use of hazardous chemical substances	Disposal and management of unnecessary chemical substances, etc.	—	7	7
	Green purchasing	Promoting purchase of eco-friendly materials, etc.	—	0	0
	Improvements to workplace	Improvement in workplace environmental performance, etc.	—	34	34
	Workplace environment subtotal		346	243	589
	Legal compliance	Management of equipment for processing gaseous emissions and effluents, maintenance of noise/vibration-emitting facilities, waste management, recycling fee management, control of dangerous substances, etc.	832	819	1,651
	Administration	ISO 14001 (administering Environmental Management System (EMS), workplace education), social contribution activities, planting trees, etc.	—	561	561
	Grand total		1,178	1,804	2,982

### Cost of environmental protection classified according to guidelines of the Japanese Ministry of the Environment

Unit: millions of yen

	Category	Main activities	Investment	Expenses	Total	Economic effect
	Costs within business establishment area		1,178	1,042	2,220	228
	Pollution prevention costs	Management of equipment for processing gaseous emissions and effluents, maintenance of noise/vibration-emitting facilities, etc.	492	414	906	—
	Global environment protection costs	Energy conservation, reduction in use of hazardous chemical substances, control of dangerous substances, etc.	686	239	924	153
	Resource recycling costs	Waste reduction, waste management, recycling fee management, maintenance of zero-emission systems, etc.	0	389	390	75
	Upstream/downstream costs	Application of Nikon Green Procurement Standards, hazardous chemical substance surveys, use of digital tachometer, recycling fee management, etc.	—	19	19	—
	Administration costs	ISO 14001 (administering Environmental Management System (EMS), workplace education), etc.	—	519	519	—
	R&D costs	Creating energy-efficient designs, REACH Regulation compliance, etc.	—	169	169	—
	Social activity costs	Social contribution activities, sponsorship activities, public relations, etc.	—	52	52	—
	Environmental damage costs	Soil treatment costs, pollution load levy, etc.	—	2	2	—
	Grand total		1,178	1,804	2,982	228

Scope of Data: Nikon Corporation, Tochigi Nikon, Tochigi Nikon Precision, Mito Nikon Precision, Sendai Nikon, Sendai Nikon Precision, Zao Nikon, Kurobane Nikon, Hikari Glass, TNI Industry Nagai Factory, etc.

Applicable Period: April 1, 2008 to March 31, 2009

Notes: Costs which could not be clarified are in principle not included in these accounts.

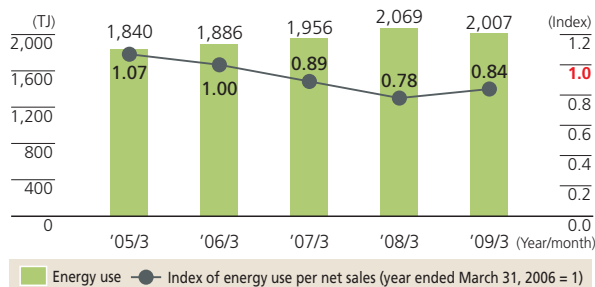
Depreciation and amortization have not been factored into these accounts.

Where a facility has been utilized for several purposes and breakdown is considered complex, the entire cost has been included in the investment cost.

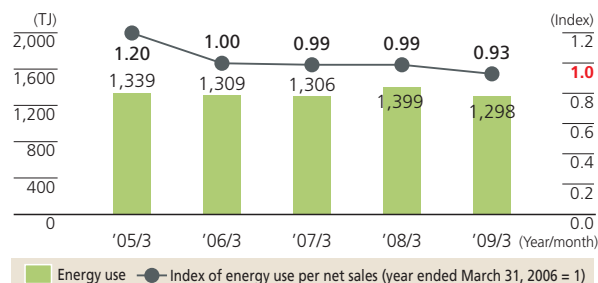
All costs have been rounded up or down to the nearest whole number, so it is possible that totals are not identical to the sum of the constituents as listed.

Only substantial effects deducible based on sound reasons are included as economic effects of environmental conservation measures.

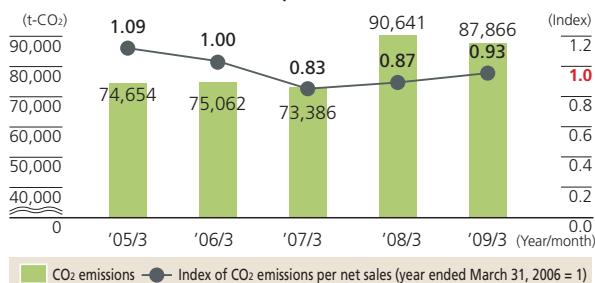
### Energy use [Nikon Corporation]



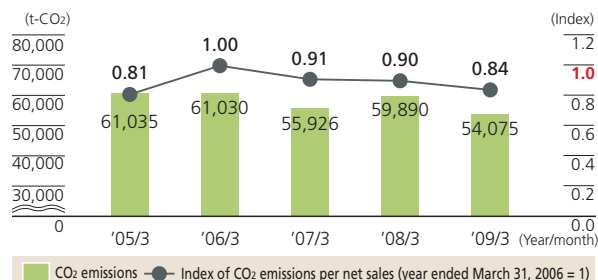
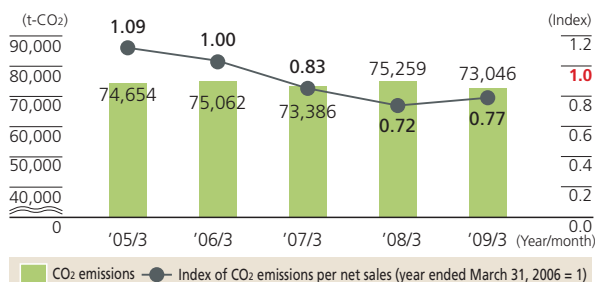
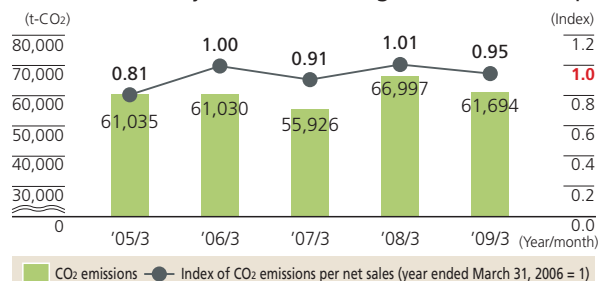
### Energy use [Major manufacturing subsidiaries in Japan]



### CO2 emissions [Nikon Corporation]



### CO2 emissions [Major manufacturing subsidiaries in Japan]



† Top graph: CO2 emissions for the year ended March 2009 were calculated using the emission index for the year ended March 2008.

Bottom graph: To correspond with the Environmental Action Plan, CO2 emissions for the year ended March 2008 and March 2009 were calculated using the emission index for the year ended March 2007.

† Top graph: CO2 emissions for the year ended March 2009 were calculated using the emission index for the year ended March 2008.

Bottom graph: To correspond with the Environmental Action Plan, CO2 emissions for the year ended March 2008 and March 2009 were calculated using the emission index for the year ended March 2007.

### PRTR survey results (year ended March 31, 2009)

Unit: kg

Facility	Substance no.	Substance name	Volume handled	Amount released			Amount transferred		Amount in on-site landfill	Amount removed for processing	Amount shipped in product	
				Air	Public water	Soil	Sewage	Waste				
Nikon Corporation Sagamihara Plant	304	Boron and its compounds	1,356	2	0	0	0	554	0	0	800	
Major manufacturing subsidiaries in Japan	Tochigi Nikon, Tochigi Nikon Precision	144	Dichloropentafluoropropane	1,946	1,829	0	0	0	0	0	117	
	Mito Nikon Precision	232	Nickel compounds	617	0	0	0	112	0	0	505	
	Sendai Nikon, Sendai Nikon Precision	63	Xylene	2,431	972	0	0	0	1,459	0	0	0
		69	Hexavalent-chromium compounds	506	0	0	0	0	304	0	0	202
		227	Toluene	3,803	2,282	0	0	0	1,521	0	0	0
	Hikari Glass Akita Plant	243	Barium and its water-soluble compounds	43,079	30	1	0	0	22,412	0	0	20,636
		283	Hydrogen fluoride and its water-soluble salts	30,727	6	1	0	0	16,403	0	0	14,317
304		Boron and its compounds	17,526	24	1	0	0	9,149	0	0	8,352	
TNI Industry Nagai Factory	144	Dichloropentafluoropropane	1,600	1,500	0	0	0	100	0	0	0	
	227	Toluene	1,815	1,578	0	0	0	237	0	0	0	
<b>Total</b>			<b>105,406</b>	<b>8,223</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>52,251</b>	<b>0</b>	<b>0</b>	<b>44,929</b>	

Notes: Nikon Corporation: No PRTR substances at Ohi, Yokohama, Kumagaya and Mito Plants.

Major manufacturing subsidiaries in Japan: No PRTR substances at Zao Nikon and Kurobane Nikon.

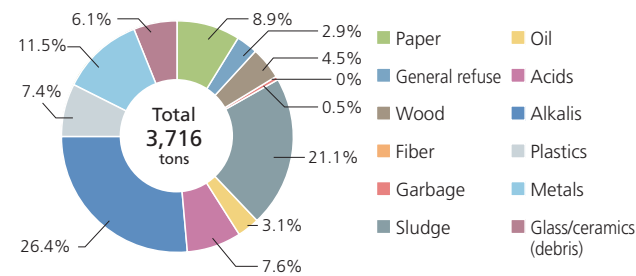
The above table includes data only for hazardous chemical substances of which one ton or more (0.5 tons or more for Class 1 designated chemical substances) is handled at the facility in a given year.

Achievement of Zero-Emission Level 1 of Nikon Group

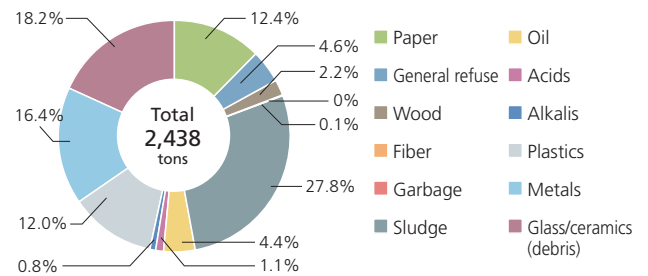
Plant	System complete (year-end)	
Nikon Corporation	Ohi Plant	March 31, 2003
	Yokohama Plant	March 31, 2003
	Sagamihara Plant	March 31, 2003
	Kumagaya Plant	March 31, 2003
	Mito Plant	March 31, 2003

Company	System complete (year-end)	
Major manufacturing subsidiaries in Japan	Sendai Nikon, Sendai Nikon Precision	March 31, 2002
	Tochigi Nikon, Tochigi Nikon Precision	March 31, 2004
	Kurobane Nikon	March 31, 2004
	Mito Nikon Precision	March 31, 2005
	Zao Nikon	March 31, 2005
Group manufacturing companies	Nasu Nikon	March 31, 2006
	Aichi Nikon	March 31, 2007

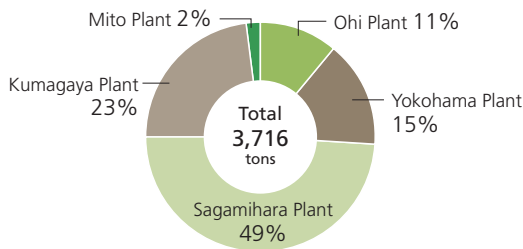
Waste by category (in the year ended March 31, 2009) [Nikon Corporation]



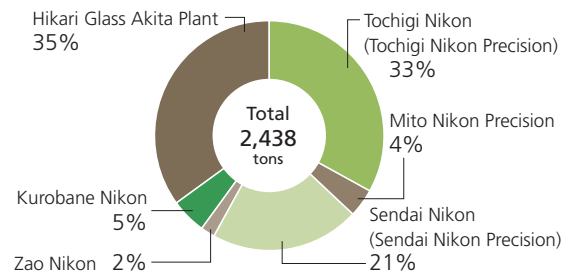
Waste by category (in the year ended March 31, 2009) [Major manufacturing subsidiaries in Japan]



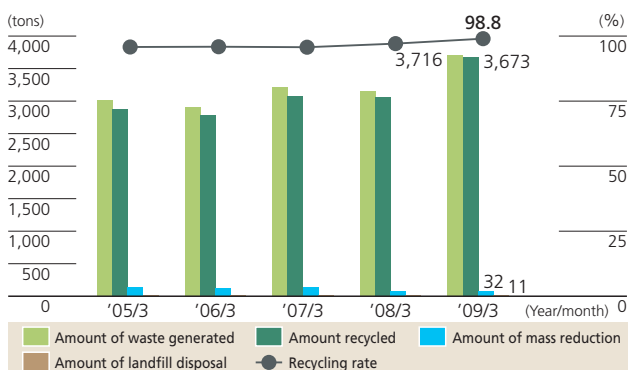
Waste by plant (in the year ended March 31, 2009) [Nikon Corporation]



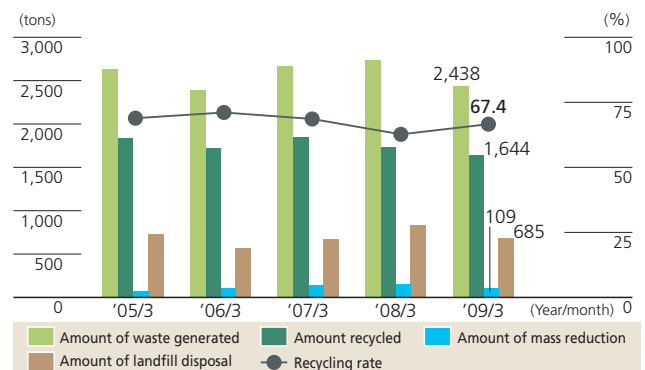
Waste by facility (in the year ended March 31, 2009) [Major manufacturing subsidiaries in Japan]



Discharge, disposal, and recycling of waste [Nikon Corporation]



Discharge, disposal, and recycling of waste [Major manufacturing subsidiaries in Japan]



## Air & Water Quality Environmental Data for Each Plant (Year ended March 31, 2009)

### Nikon Corporation Ohi Plant

Address: 6-3, Nishi-Ohi 1-chome,  
Shinagawa-ku, Tokyo  
140-8601, Japan  
Phone: +81-3-3773-1307



### Nikon Corporation Yokohama Plant

Address: 471 Nagaodai-cho,  
Sakae-ku, Yokohama,  
Kanagawa 244-8533,  
Japan  
Phone: +81-45-852-2111



### Air (Air Pollution Control Law, Metropolitan regulations)

Units: Dust: g/Nm<sup>3</sup>; NOx: ppm

Item	Regulatory standard	Plant standard	Actual (max.)
Cooling & heating equipment	Dust	0.05	<0.001
		0.05	<0.001
		0.05	<0.001
	NOx	45	26
		45	26
		45	23

### Air (Air Pollution Control Law, Prefectural regulations)

Unit: NOx: ppm

Item	Regulatory standard	Plant standard	Actual (max.)
Boiler	NOx	65	29
		65	44
		65	44
		46	30
		46	37
		46	30

### Water quality (Sewerage Law, Metropolitan regulations)

Unit: mg/liter, except for pH

Item	Regulatory standard	Plant standard	Actual (max.)
Living environment	pH	5.8–8.6	6.5–8.0
	BOD	300	72.4
	SS	300	64
	n-Hexane (animal & vegetable)	30	8
	Iodine demand	220	2.9
	Copper	3	<0.01
	Zinc	2	0.01
	Soluble iron	10	0.12
	Total chromium	2	0.05
	Fluorine	15	1.32
	Boron	230	<0.1
	Nitrogen	120	9.8
	Phosphorous	16	4.3
	Health	Lead	0.1

### Water quality (Sewerage Law, City regulations)

Unit: mg/liter, except for pH

Item	Regulatory standard	Plant standard	Actual (max.)
Living environment	pH	5.0–9.0	6.2–7.5
	BOD	600	2.8
	SS	600	47
	n-Hexane (mineral)	5	3
	Iodine demand	220	0
	Total chromium	2	0.01
	Copper	1	0
	Zinc	1	0.03
	Soluble iron	3	0.08
	Soluble manganese	1	0
	Fluorine	8	1.03
	Boron	10	0.3
	Nitrogen	240	18.9
	Phosphorus	32	3.3
Health	Nickel	1	0.03
	Lead	0.1	0.01
	Hexavalent-chromium	0.5	0
	Arsenic	0.1	0
	Trichloroethylene	0.3	0
	Tetrachloroethylene	0.1	0

## Glossary

- **SOx:** Sulfur oxides
- **NOx:** Nitrogen oxides
- **ppm:** Parts per million
- **pH:** Hydrogen ion concentration. Indicates the acidity or alkalinity of a substance, where a solution of pH 0 to 7 is acid, pH of 7 is neutral, and pH over 7 is alkaline. A change of one pH number indicates a 10-fold change in the concentration of hydrogen ions.
- **BOD:** Biochemical oxygen demand. The amount of oxygen required for microorganisms to oxidize and consume organic pollutants in water. Used to gauge the degree of pollution of rivers.

- **SS:** Abbreviation of suspended solids present in water, including small particles, zooplanktons and phytoplanktons, dead organisms and organism particles, excrement and other organic matters, sand, silt and other inorganic particles, and various kinds of artificial pollutants.
- **n-Hexane (mineral or animal/vegetable):** Normal hexane mass. Used to measure the total content of oils and hydrocarbons in waste water, it indicates the amount of materials extracted using normal hexane that do not volatilize at about 100°C. Covers animal and vegetable oils, fatty acids, petroleum-based hydrocarbons, wax, and grease.
- **Iodine demand:** The amount of iodine used by the reducing substances (sulfides, etc.) in waste water during iodine oxidation. It is an index of the presence of the reducing substances in waste water.

**Nikon Corporation  
Sagamihara Plant**

Address: 10-1, Asamizodai  
1-chome, Sagamihara,  
Kanagawa 228-0828,  
Japan  
Phone: +81-42-740-6300



**Nikon Corporation  
Kumagaya Plant**

Address: 201-9 Miizugahara,  
Kumagaya, Saitama  
360-8559, Japan  
Phone: +81-48-533-2111



**Air (Air Pollution Control Law, Prefectural regulations)**

Units: Dust: g/Nm<sup>3</sup>; NOx: ppm; fluorine and lead: mg/Nm<sup>3</sup>; hydrogen chloride: ppm

Item	Regulatory standard	Plant standard	Actual (max.)	
Boiler	Dust	0.1	0.0035	
		0.1	0.0036	
		0.1	0.0035	
		0.1	0.0020	
		0.1	0.0022	
		0.1	0.0068	
	NOx	60	52	
		60	55	
		60	49	
		105	8	
		105	4	
		60	16	
	Absorption chiller	Dust	0.1	<0.001
			0.1	<0.001
NOx		60	26	
Fusion furnace*	Dust	0.15	<0.005	
	NOx	800	<5	
	Fluorine	2.5	<0.25	
	Lead	10	<0.03	
Scrubber	Hydrogen chloride	5	1.8	
		5	2.1	

\*Optical glass smelting furnace (classified as a fusion furnace under the Air Pollution Control Law).

**Water quality (Sewerage Law, City regulations)**

Unit: mg/liter, except for pH

Item	Regulatory standard	Plant standard	Actual (max.)
Living environment	pH	5.8-8.6	6.5-7.6
	BOD	300	10
	SS	300	12
	Zinc	2	0.04
	Fluorine	8	2.2
	Boron	10	1.32
	Ammonia and nitrate nitrogen	100	16.3
	Health	Lead	0.1
Arsenic		0.1	<0.01

**Air (Air Pollution Control Law, Prefectural regulations)**

Units: Dust: g/Nm<sup>3</sup>; NOx: ppm

Item	Regulatory standard	Plant standard	Actual (max.)	Item	Regulatory standard	Plant standard	Actual (max.)
Boiler	Dust	0.1	0.05	*	NOx	150	29
		0.1	0.05			150	24
		0.1	0.05			150	22
		0.1	0.05			150	63
		0.1	0.05			150	26
		0.1	0.05			150	28
		0.1	0.05			150	27
		0.1	0.05			150	61
		0.1	0.05			150	54
		0.1	0.05			150	60
		0.1	0.05			150	21
		0.1	0.05			150	25
		0.1	0.05			150	67
		0.1	0.05			150	64
		0.1	0.05			150	64
		0.1	0.05			150	23
		0.1	0.05			150	25
		0.1	0.05			150	22
		0.1	0.05			150	64
	0.1	0.05	150	61			
0.1	0.05	150	29				
0.1	0.05	150	29				
0.1	0.05	150	32				

\*In accordance with the Air Pollution Control Law, which stipulates that dust emitted from gas-fired boilers be measured once or more every five years, dust emissions were not measured in the year ended March 31, 2009. (The last measurement was made in the year ended March 31, 2008.)

**Water quality (Sewerage Law, City regulations)**

Unit: mg/liter, except for pH

Item	Regulatory standard	Plant standard	Actual (max.)
Living environment	pH	5.1-8.9	6.7-7.8
	BOD	600	33.0
	SS	600	17.0
	n-Hexane (mineral)	5	<2.0
	n-Hexane (animal & vegetable)	30	<2.0
	Iodine demand	220	19.0
	Copper	3	<0.1
	Zinc	2	<0.1
	Soluble iron	10	<0.5
	Nitrogen	240	100
	Phosphorus	32	40*
Health	Ammonia and nitrate nitrogen	380	96.0
		Lead	0.1

\*Occurred in January 2009 (The value exceeded the regulatory and plant standards.)  
Cause: During filter replacement, sludge solution containing phosphorus was released into a wastewater treatment process that cannot remove phosphorus.  
Measures: All concerned were instructed to make sure that filter replacement of this kind is performed at a place where waste solution can be prevented from running into the above process.

## Nikon Corporation Mito Plant

Address: 276-6 Motoishikawa-cho,  
Mito, Ibaraki  
310-0843, Japan  
Phone: +81-29-240-1112



### Air (Air Pollution Control Law)

Units: Dust: g/Nm<sup>3</sup>; NOx: ppm; SOx: Nm<sup>3</sup>/h

Item	Regulatory standard	Plant standard	Actual (max.)
Dust	0.1 (0.3)* <sup>3</sup>	0.1 (0.27)* <sup>3</sup>	0.006 (0.007)* <sup>3</sup>
	0.1 (0.3)* <sup>3</sup>	0.1 (0.27)* <sup>3</sup>	0.006 (0.007)* <sup>3</sup>
	0.1 (0.3)* <sup>3</sup>	0.1 (0.27)* <sup>3</sup>	0.006 (0.007)* <sup>3</sup>
Boiler* <sup>1</sup>	0.1	0.1	0.006
	150 (180)* <sup>3</sup>	150 (162)* <sup>3</sup>	94 (100)* <sup>3</sup>
	150 (180)* <sup>3</sup>	150 (162)* <sup>3</sup>	98 (98)* <sup>3</sup>
	150 (180)* <sup>3</sup>	150 (162)* <sup>3</sup>	100 (100)* <sup>3</sup>
NOx	150	150	97
	3.25	0.67	0.003
	3.25	0.67	0.003
SOx* <sup>2</sup>	3.25	0.67	0.003
	3.25	0.67	0.003
	3.25	0.67	0.003

\*1 The fuel for the three existing boilers was switched from heavy oil to liquefied petroleum gas (LPG) on October 20, 2008. The newly installed boiler started operation on February 1, 2009, fueled by LPG.

\*2 Because the fuel for the three existing boilers was switched from heavy oil to LPG on October 20, 2008, the values are those for the period of April to October 2008.

\*3 Because the fuel for the three existing boilers was switched from heavy oil to LPG on October 20, 2008, the values in parentheses are those for before the switch.

### Water quality (Water Pollution Control Law, City regulations)

Unit: mg/liter, except for pH and E. coli (colonies/ml)

Item	Regulatory standard	Plant standard	Actual (max.)
pH	5.8–8.6	6.0–8.2	6.2–7.6
BOD	20	20	15
SS	30	30	23
n-Hexane (animal & vegetable)	10	10	2
Nitrogen	60	60	41.4
Phosphorous	8	8	6.24
E. coli (daily average)	3,000	2,700	12

## Tochigi Nikon Corporation

Address: 770 Midori, Otawara,  
Tochigi 324-8625, Japan  
Phone: +81-287-28-1111

## Tochigi Nikon Precision Co., Ltd.

Address: 760 Midori, Otawara,  
Tochigi 324-8520, Japan  
Phone: +81-287-28-1177



### Air (Air Pollution Control Law)

Units: Dust: g/Nm<sup>3</sup>; NOx: ppm; SOx: Nm<sup>3</sup>/h

Item	Regulatory standard	Plant standard	Actual (max.)
Dust	0.3	0.2	<0.005
	0.3	0.2	<0.005
	0.3	0.2	<0.005
	0.3	0.2	<0.005
	0.3	0.2	<0.005
Boiler	180	120	110
	180	120	120
	180	120	69
	180	120	85
	180	120	68
NOx	14.5	0.5	0.3
	14.5	0.5	0.4
	14.5	0.5	<0.1
	14.5	0.5	<0.1
	14.5	0.5	<0.1
SOx	14.5	0.5	<0.1
	14.5	0.5	<0.1
	14.5	0.5	<0.1
	14.5	0.5	<0.1
	14.5	0.5	<0.1

### Water quality (Water Pollution Control Law, Prefectural regulations, etc.)

Unit: mg/liter, except for pH and E. coli (colonies/ml)

Item	Regulatory standard	Plant standard	Actual (max.)	
Living environment	pH	5.8–8.6	6.0–8.4	7.3–7.7
	BOD	20	6.3	3.9
	SS	40	5.5	2.8
	n-Hexane (mineral)	5	0.9	0.8
	Total chromium	2	0.2	<0.1
	Fluorine	0.8	0.7	0.4
	E. coli (daily average)	3,000	240	350*
Health	Cadmium	0.1	0.01	<0.01
	Cyanogen	1	0.1	<0.1
	Lead	0.1	0.06	<0.01
	Hexavalent-chromium	0.5	0.05	<0.05
	Arsenic	0.1	0.05	<0.01
	Trichloroethylene	0.3	0.03	<0.001
	Tetrachloroethylene	0.1	0.01	<0.0005
	Dichloromethane	0.2	0.02	<0.02
1,1,1-Trichloroethane	3	0.3	<0.001	

\*Occurred in September 2008 (The value exceeded the plant standard.)

Cause: Due to a partial failure of the automatic control panel of the household wastewater treatment facility, biological treatment of wastewater was not sufficiently performed, resulting in the value exceeding the plant standard (self-imposed restriction).

Measures: The automatic control panel was repaired and, in addition, the monitoring and controlling system was improved.

**Mito Nikon Precision Corporation**

Address: 4500 Sugaya, Naka,  
Ibaraki 311-0194, Japan  
Phone: +81-29-298-8111



**Sendai Nikon Corporation**

Address: 277, Aza-hara, Tako,  
Natori, Miyagi  
981-1221, Japan  
Phone: +81-22-384-0011



**Sendai Nikon Precision Corporation**

Address: 289, Aza-hara, Tako,  
Natori, Miyagi  
981-1221, Japan  
Phone: +81-22-384-0018

**Air (Air Pollution Control Law, Prefectural regulations)**

Units: Dust: g/Nm<sup>3</sup>; NOx: ppm; SOx: Nm<sup>3</sup>/h

Item	Regulatory standard	Plant standard	Actual (max.)	
Boiler	Dust	0.3	0.05	<0.02
	NOx	250	125	88
	SOx	8.47	0.8	0.01

**Air (Air Pollution Control Law)**

Units: Dust: g/Nm<sup>3</sup>; NOx: ppm

Item	Regulatory standard	Plant standard	Actual (max.)	
Boiler	Dust	0.05	0.035	0.008
		0.05	0.035	0.006
		0.05	0.035	0.008
	NOx	600	100	45
		600	100	52
		600	100	55

**Water quality (Sewerage Law, City regulations)**

Unit: mg/liter, except for pH

Item	Regulatory standard	Plant standard	Actual (max.)	
Living environment	pH	5.0-9.0	5.8-8.6	6.3-7.6
	BOD	600	300	8.4
	SS	600	300	3.1
	n-Hexane (mineral)	5	2	0.7

**Water quality (Sewerage Law, City regulations)**

Unit: mg/liter, except for pH

Item	Regulatory standard	Plant standard	Actual (max.)		
Living environment	pH	5.8-8.6	6.0-7.8	6.8-7.2	
	BOD	300	30	2.6	
	SS	300	30	2.0	
	n-Hexane (mineral)	5	3	1.0	
	n-Hexane (animal & vegetable)	30	3	1.0	
	Iodine demand	220	20	10.0	
	Total chromium	2	1	0.3	
	Copper	3	1	0.1	
	Zinc	2	1	0.2	
	Phenols	5	1	0.1	
	Soluble iron	10	1	0.1	
	Manganese	10	1	0.1	
	Fluorine	15	1	0.5	
	Boron	230	1	0.1	
	Nitrogen	125	10	5.4	
	Phosphorus	20	10	2.3	
	Ammonium and nitrate nitrogen	380	10	4.0	
	Health	Cadmium	0.1	0.05	0.01
		Cyanogen	1	0.5	0.1
Organophosphate		1	0.5	0.1	
Lead		0.1	0.05	0.01	
Hexavalent-chromium		0.5	0.1	0.05	
Arsenic		0.1	0.1	0.01	
Total mercury		0.005	0.002	0.0005	
Alkyl mercury		Not detectable	Not detectable	<0.0005	
PCB		0.003	0.001	0.0005	
Trichloroethylene		0.3	0.2	0.03	
Tetrachloroethylene		0.1	0.1	0.01	
Dichloromethane		0.2	0.1	0.02	
Carbon tetrachloride		0.02	0.01	0.002	
1,2-Dichloroethane		0.04	0.02	0.004	
1,1-Dichloroethylene		0.2	0.1	0.02	
cis-1,2-Dichloroethylene		0.4	0.2	0.04	
1,1,1-Trichloroethane		3	1	0.3	
1,1,2-Trichloroethane		0.06	0.02	0.006	
1,3-Dichloropropene		0.02	0.01	0.002	
Thiuram		0.06	0.02	0.006	
Simazine		0.03	0.02	0.003	
Benthocarb		0.2	0.1	0.02	
Benzene	0.1	0.1	0.01		
Selenium	0.1	0.1	0.01		

### Zao Nikon Co., Ltd.

Address: 20, Aza-shin-oyoke,  
Miya, Zao-machi,  
Katta-gun, Miyagi  
989-0701, Japan  
Phone: +81-224-32-2336



### Kurobane Nikon Co., Ltd.

Address: 1434, Kurobanemuko-  
machi, Otawara,  
Tochigi 324-0241, Japan  
Phone: +81-287-53-1111



#### Air (Air Pollution Control Law)

Units: Dust: g/Nm<sup>3</sup>; NOx: ppm

Item		Regulatory standard	Plant standard	Actual (max.)
Applicable to none	Dust			
	NOx			

#### Air (Air Pollution Control Law)

Units: Dust: g/Nm<sup>3</sup>; NOx: ppm

Item		Regulatory standard	Plant standard	Actual (max.)
Applicable to none	Dust			
	NOx			

#### Water quality (Water Pollution Control Law, Prefectural regulations, etc.)

Unit: mg/liter, except for pH and E. coli (colonies/ml)

Item		Regulatory standard	Plant standard	Actual (max.)
Living environment	pH	5.8–8.6	5.8–7.6	6.5–7.4
	BOD	30	30	7.3
	SS	200	35	19.8
	n-Hexane (mineral)	5	2.5	0.9
	Copper	3	0.1	0.05
	E. coli (daily average)	3,000	1,000	170
Health	Cadmium	0.1	0.01	<0.002
	Cyanogen	1	0.2	<0.1
	Organophosphate	1	0.2	<0.1
	Lead	0.1	0.02	<0.01
	PCB	0.003	0.001	<0.0005
	Trichloroethylene	0.3	0.01	<0.001
	Dichloromethane	0.2	0.08	<0.001
	Benzene	0.1	0.01	<0.001

#### Water quality (Water Pollution Control Law, Prefectural regulations)

Unit: mg/liter, except for pH

Item		Regulatory standard	Plant standard	Actual (max.)
Living environment	pH	5.0–9.0	6.5–8.0	6.7–7.9
	BOD	600	5	2.6
	SS	600	10	2.0
	n-Hexane (mineral)	5	1	<1.0
	Copper	1	1	<0.1
	Zinc	1	1	<0.1
Health	Lead	0.1	0.05	0.01
	Trichloroethylene	0.3	0.3	<0.03
	Tetrachloroethylene	0.1	0.1	<0.01
	Dichloromethane	0.2	0.03	<0.02



**Hikari Glass Co., Ltd.  
Akita Plant**

Address: 155, Aza-Mitsumata  
Shirahata, Komagata-  
cho, Yuzawa, Akita  
012-0104, Japan  
Phone: +81-183-42-2197



**Air (Air Pollution Control Law)**

Units: Dust: g/Nm<sup>3</sup>; NOx: ppm; fluorine, lead and hydrogen chloride: mg/Nm<sup>3</sup>

Item	Regulatory standard	Plant standard	Actual (max.)	
Fusion furnace*	Dust	0.15	0.01	<0.01
	NOx	800	80	9
	Fluorine	10	10	0.83
	Lead	20	2	<0.61
	Hydrogen chloride	80	20	<6.2

\*Optical glass smelting furnace (classified as "fusion furnace" under the Air Pollution Control Law)

**Water quality (Water Pollution Control Law, Prefectural regulations, etc.)**

Unit: mg/liter, except for pH

Item	Regulatory standard	Plant standard	Actual (max.)	
Living environment	pH	5.8–8.6	5.8–8.6	6.5–8.1
	BOD	30	30	76* <sup>1</sup>
	COD	30	30	20
	SS	70	50	50
	n-Hexane (mineral)	5	5	12* <sup>2</sup>
	Total chromium	2	2	<0.01
	Copper	3	3	0.01
	Zinc	2	2	0.03
	Soluble iron	10	0.5	0.43
	Manganese	10	10	0.02
	Fluorine	8	8	2.03
	Boron	10	10	2.4
	Health	Lead	0.1	0.09
Hexavalent-chromium		0.5	0.5	<0.05
Arsenic		0.1	0.01	<0.02

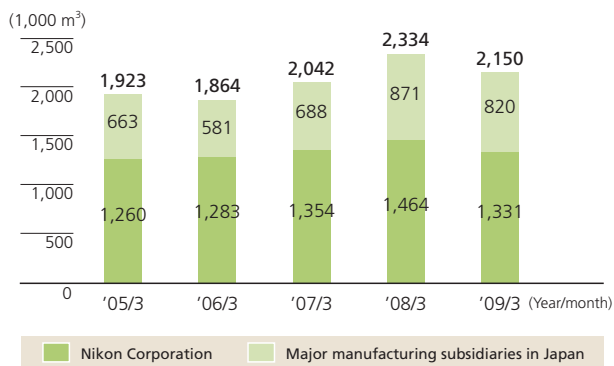
- \*1 Occurred in May 2008 (The value exceeded the regulatory and plant standards.)  
Cause: Clogging of a blower pipe of a wastewater tank caused aeration failure, resulting in deteriorated water quality.  
Measures: The pipe and wastewater tank were cleaned to restore the treatment function.
- \*2 Occurred in July 2008 (The value exceeded the regulatory and plant standards.)  
Cause: Workers with lubricant oil on their hands washed their hands in a sink for household wastewater.  
Measures: A notice instructing workers about the use of sinks was placed at sinks for household wastewater.
- \*3 Occurred in May 2008 (The value exceeded the regulatory and plant standards.)  
Cause: Abrasive sludge entered into the general wastewater drain system via rags and other cleaning tools.  
Measures: Workers were instructed to make sure that water used to wash rags and other cleaning tools is treated at wastewater treatment facilities.

**Water usage for the year ended March 31, 2009**

Unit: m<sup>3</sup>

Plant	Annual water usage	
Nikon Corporation	Ohi Plant	60,770
	Yokohama Plant	75,632
	Sagamihara Plant	847,324
	Kumagaya Plant	330,156
	Mito Plant	16,715
Major manufacturing subsidiaries in Japan	Tochigi Nikon Corporation, Tochigi Nikon Precision Co., Ltd.	505,300
	Mito Nikon Precision Corporation	7,055
	Sendai Nikon Corporation, Sendai Nikon Precision Corporation	117,376
	Zao Nikon Co., Ltd.	30,092
	Kurobane Nikon Co., Ltd.	5,065
	Hikari Glass Co., Ltd. Akita Plant	154,917
<b>Total</b>	<b>2,150,402</b>	

**Water usage (March 31, 2005–March 31, 2009)**



Notes: All figures have been rounded up or down to the nearest whole number, so it is possible that totals are not identical to the sum of the constituents as listed. The data for the year ended March 31, 2005 partially include estimated amounts (Kurobane Nikon).

**Rate of green purchasing (purchases of specified goods as %) [Nikon Corporation]**

