Environmental Report

2021

NIHON DEMPA KOGYO CO., LTD.

CONTENTS

1． Basic Matters

（1）Greeting

Representative Director and President
Hiromi Katoh

NIHON DEMPA KOGYO (hereinafter called NDK) and its groups aim to realize an abundant and sustainable decarboznized society.

In particular, we are actively working on environmental conservation activities such as environmental burdens reduction, resource saving, reduction of CO_2 emission, waste reduction and manufacturing environmental friendly products.

We also promote realization of a sustainable recycling society and business activities which aim to harmonize with nature environment. Aiming for “NDK takes its part in protecting the environment and is fulfilling its social responsibilities” which is our corporate philosophy, we promise to become a company which can satisfy customers.

While serving as global supplier, our goal is to meet the expectations of customers, and to become a globally trusted company.

（2）Scope

This report introduces NDK’s global environmental conservation activities during Apr. 2020 to Mar.2021.

（3）Environmental Philosophy and Policies

《Environmental Philosophy》

NDK, as globally operating corporation, aware the importance of environmental substance reduction activity and recycling-oriented society, in the light of our corporate philosophy [NDK is to work on the environment preservation and meet social responsibility]. We, with our will and responsibility, deploy proactive continual environment preserving activities and we pass this precious earth to future generations.

《Environmental Policies》

I. Preserving the global environment is one of the major management issues at NDK. We will carefully analyze and assess the environmental impact of all products and business processes, from product development through design, manufacture, and sale as well as continually improve measures to prevent environmental pollution.

II. We will observe all relevant environmental regulations and stipulations strictly and maintain and improve environmental management system. Also we will continuously monitor and try to improve it and periodically review it.

III. We will establish our own standards in the areas of our operations with significant environmental impact. These standards will be based on the present-day realities of technology and economics. We will also review, when necessary, our environmental objectives and targets concerning these activities and progressively improve the management of such activities.

IV. We will conduct environmental issue training so that all employees understand our Environmental Policy also they can initiate voluntary continuous environment preserving activities.

V. We will make our Environmental Philosophy and Policies readily available to the public and enlightenment activities.

1． Basic Matters

（4）Environmental Policies

《Environmental Policies》

The NDK, based on the NDK Group's Environmental Philosophy and Policies, enacts and implements the following environmental policies.

a. Preserving the global environment is one of the major management issues at NDK. We will carefully analyze and assess the environmental impact of all plant processes and the development, design, manufacture, and sales of all products; synthetic quartz crystals, crystal units, crystal oscillators, crystal filters, SAW devices, optical components, and ultrasonic transducers and continually improve measures to prevent environmental pollution and to promote pro-environmental activities.

b. We will observe all relevant environmental regulations and agreements strictly and maintain and improve environmental management systems. We will endeavor to make continual progress in the results of our environmental activities and review and improve the performance of environmental management systems.

c. We will establish our own standards-as listed below-in the areas of our operations with significant environmental impact. These standards will be based on the present-day realities of technology and economics. We will also review, when necessary, our environmental objectives and targets concerning these activities and progressively improve the management of such activities.

   I. Promoting the three R's: Reduction, Reuse and Recycling of waste. Its aim is to maintain zero emissions.
   II. Proper control substances of environmental impact and reduction of usage.
   III. Reduction of CO_2 emission volumes and other green-house gasses.
   IV. Promoting energy-saving, resource-saving.
   V. Developing products and manufacturing process that place a minimal burden on the environment.
   VI. Promoting green purchasing, green procurement.
   VII. Promoting biodiversity preservation activities.

d. We will conduct environmental issue training so that all employees understand our Environmental Policy also they can initiate voluntary continuous environment preserving activities.

e. We will make our Environmental Policies readily available to the public.

1． Basic Matters

（5）History of Environmental Preservation

Table 1. History of Environmental Preservation

		Topics
1994	Mar.	Totally abolished specified CFCs
	Apr.	Launched global environment protection committee
1997	Dec.	Added “NDK takes its part in protecting the environment and is fulfilling its social responsibilities” to Management Philosophy
1999	Jun.	Enacted Environmental Policies for NDK Sayama Plant
	Oct.	Enacted Environmental Philosophy and Policies for NDK group
	Oct.	Revised Environmental Policies for NDK Sayama Plant (consistency with Environmental Philosophy and Policies for NDK group)
	Dec.	ISO 14001 certification obtained (NDK Sayama Plant)
2000	Jun.	ISO 14001 certification obtained (Furukawa NDK)
		ISO 14001 certification obtained (Hakodate NDK)
	Sep.	ISO 14001 certification obtained (Suzhou NDK)
	Dec.	ISO 14001 certification obtained (Asian NDK Crystal Sdn. Bhd.)
		ISO 14001 certification obtained (NDK Quartz Malaysia Sdn. Bhd.)
2002	Jan.	Certified as Sayama eco-friendly office
	Sep.	Disclosed environmental burdens reduction plan base on Saitama regulations
2003	Jun.	Certified as SONY green partner
2004	May.	Started zero emission activities at Sayama Plant
2005	Aug.	Joined Saitama Green Trust activities
	Sep.	Won an award in Japan Greenery Research and Development Center (Furukawa NDK)
2006	Mar.	Installed solar energy generation system
	Jun.	Disclosed data on waste/water quality/CO2 (Sayama Plant)
2007	May.	Enlarged greenery area by exterior construction (Sayama Plant)
2009	Jan.	Obtained ISO 14001 certification (NDK HQ)
2010	Mar.	Won “Saitama Environmental Award” (Sayama Plant)
		Achieved zero emission (Sayama Plant)
	Sep.	Disclosed NDK group Environmental Report
		Disclosed reduction plan for greenhouse gas emission (global warming prevention plan) based on Saitama regulations.
	Oct.	ISO 14001 certification of HQ and Sayama Plant was integrated
2011	Mar.	Environmental activities at Sayama plant was broadcasted at Television Saitama
	Jul.	Held environmental education session of Sayama Plant for Sayama citizens
2012	Apr.	Given certification of eco-friendly office from Sayama city
2014	Oct.	Based on automotive global warming prevention policies, introduced as good working office from Saitama prefecture
2015	Jul.	Achieved 6% reduction (2014)of greenhouse gas which is a target of Saitama regulations
2016	Aug.	Achieved 13% reduction (2015)of greenhouse gas which is a target of Saitama regulations
2017	Aug.	Achieved 13% reduction (2016) of greenhouse gas which is a target of Saitama regulations
	Oct.	Being awarded with achieving CO_2 reduction target of 1st reduction plan period (FY2011 to FY2014) defined by Saitama prefectural ordinance
2018	Aug.	Achieved 13% reduction (2017)of greenhouse gas which is a target of Saitama regulations
2019	Jul.	Achieved 13% reduction (2018)of greenhouse gas which is a target of Saitama regulations
2020	Mar.	Finished 2nd reduction plan period (FY2015 to FY2019) of CO_2

1． Basic Matters

（6） Environmental Management System

NDK group actively promotes global environment conservation activities based on “NDK takes its part in protecting the environment and is fulfilling its social responsibilities” which is our corporate philosophy as global company.

Through improving a company-wide environment conservation promoting system, we are making efforts to establish, maintain and enhance environmental management system.

■ Environment-friendly production

We have created a midterm plan with concrete tasks and targets to reduce environmental burdens. As a part of this plan, we promote global warming prevention, waste reduction, chemical management and air/water pollution prevention, etc.

“Green Crystal Technology™” is our own development concept of crystal devices in response to social environmental needs such as CO_2 reduction.

By using the most advance technologies to realize minimization as well as reduction of product weight and power consumption, we pursue overall energy saving through product life cycle, and improvement of environmental performance.

As a result we have achieved 20% reduction of CO_2 emission target and we will continue to maintain and improve looking for higher target in the future.

Also Development Bank of Japan Inc. selected us as a good environmental management company, and gave an environmental rating.

Chart 1. Environmental management organization

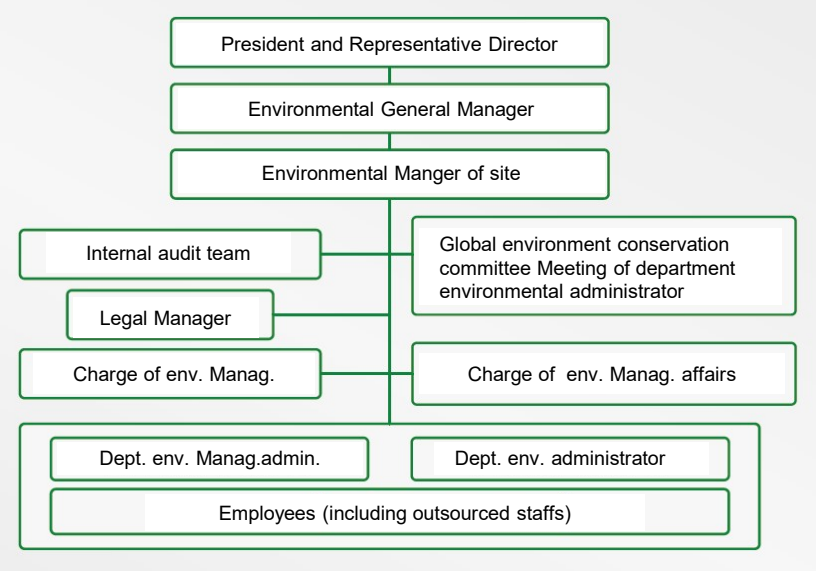
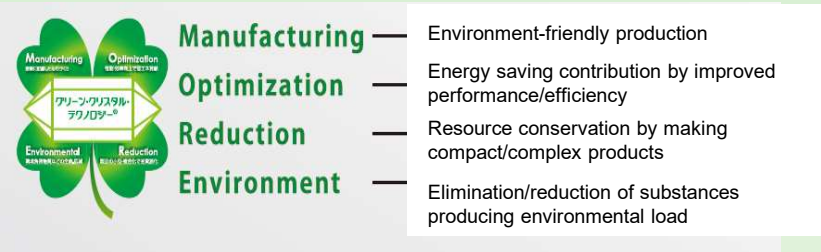


Chart 2. Green Crystal Technology™



1． Basic Matters

（7）Environmental Management System Certification

ISO 14001 is an international standard for environmental management systems. Such systems are essential to mitigating or offsetting the impact on and risks posed to the environment by an organization's activities, products and services. NDK has acquired ISO 14001 certification for its production sites in Japan and overseas. This exemplifies the way in which we as a group are driving environmental management forward.

Chart 3. Environmental activity sites of NDK group

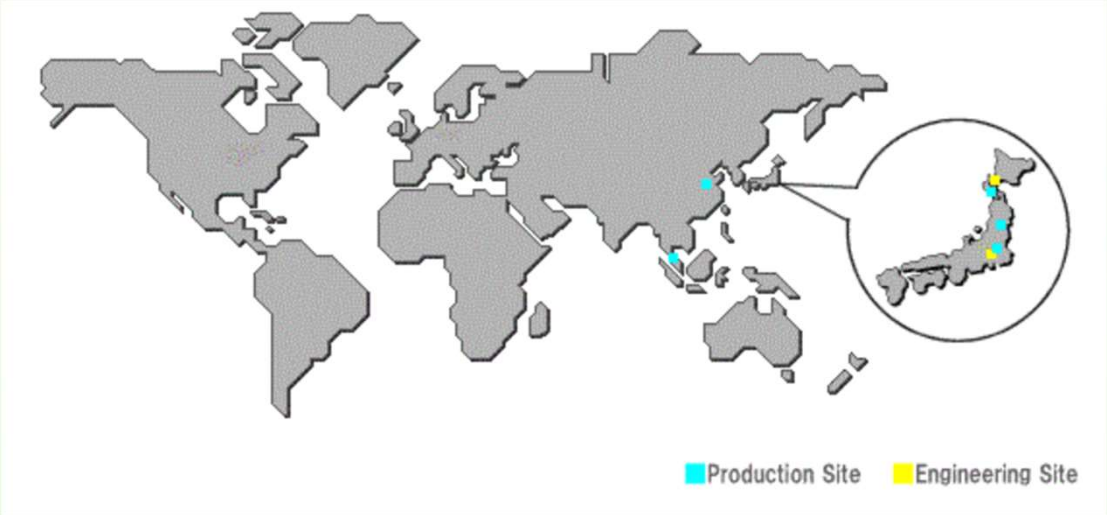


Chart 4. ISO14001:2015 Management System Certificate
（NIHON DEMPA KOGYO CO.,LTD.）

ISO 14001
Management System Certificate

Certificate Number : JQA-EM0663

Organization :
NIHON DEMPA KOGYO CO., LTD.
HEAD OFFICE
MERKMAL KEIO SASAZUKA BLDG., 1-47-1 SASAZUKA, SHIBUYA-KU, TOKYO, JAPAN

JQA certifies that the above organization operates the Environmental Management System, within the scope of the Appendix attached, which has been assessed and found to comply with the requirements of;

ISO 14001 :2015 / JIS Q 14001 :2015

Registration Date : December 24, 1999
Last Renewal Date : December 24, 2020
Expiry Date : December 23, 2023
Feel free to contact JQA for the validity of this certificate.

N. Kobayashi
NORIAKI KOBAYASHI
PRESIDENT
1-25 KANDASUDACHO, CHIYODA-KU, TOKYO, JAPAN

JAPAN QUALITY ASSURANCE ORGANIZATION
To be used in conjunction with attached Appendix.

ISO 14001
Appendix

Certificate Number : JQA-EM0663 1 / 1

Organization :
NIHON DEMPA KOGYO CO., LTD.
HEAD OFFICE

Scope of Registration:

THE DESIGN / DEVELOPMENT AND THE MANUFACTURE OF OPTICAL PARTS (DOUBLE REFRACTION PLATES, QUARTER WAVE PLATES, PRISMS), CRYSTAL UNITS, CRYSTAL OSCILLATORS, CRYSTAL FILTERS, ULTRASONIC TRANSDUCERS, SYNTHETIC QUARTZ CRYSTALS AND SYNTHESIZER.

ASSOCIATED ORGANIZATION: [SCOPE OF ACTIVITY: SAME AS ABOVE].

-SAYAMA PLANT
1275-2 KAMIHIROSE, SAYAMA-SHI, SAITAMA, JAPAN

Registration Date : December 24, 1999
Last Renewal Date : December 24, 2020
Expiry Date : December 23, 2023
Feel free to contact JQA for the validity of this certificate.

N. Kobayashi
NORIAKI KOBAYASHI
PRESIDENT

JAPAN QUALITY ASSURANCE ORGANIZATION
This Appendix is an integral part of the Certificate and should only be used in conjunction with the Certificate.

1． Basic Matters

（8）Environmental Education

Under the corporate philosophy “NDK takes its part in protecting the environment and is fulfilling its social responsibilities” we are working to enhance environmental awareness of each employee.

Table 2. Environmental education

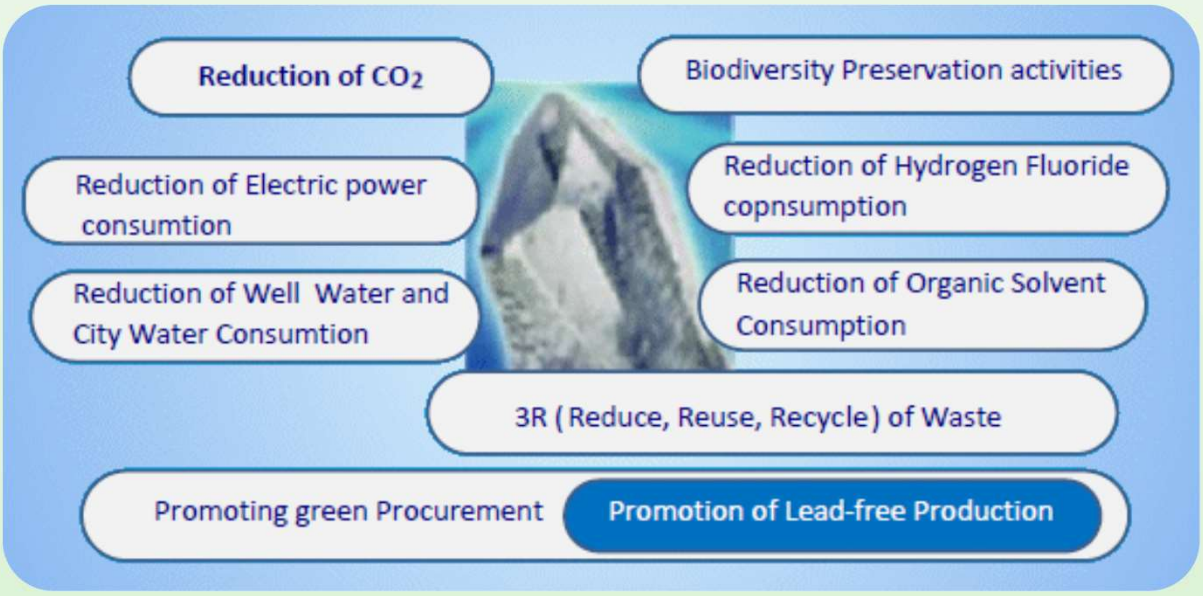
Items	Method	Target
General knowledge on environment	Environmental education（AB）	All employee
Environmental policies and environmental relating rules	Environmental education（AB）	All employee
Expert knowledge on environment	Education and session for fostering environmental expert	Environment conservation promoter
Internal environmental audit method	Education and session for internal audit commissioner	Internal auditor
Knowledge on environmental laws and regulations	Education for environmental laws/regulations and legal qualifications	Those who engage in legal operations
Knowledge on specified operations	Education for specified operations and handler session	Chemical handler

2. Environmental Performance

（1）Outline of Environmental Friendly Management

Environmental management is one of the highest priorities for enterprise management in the 21st century. At NDK, taking steps to conserve the natural environment and fulfill our role as a responsible corporate citizen are vital to the corporate mission underpinning our dynamic actions to reduce NDK's environmental footprint.

Chart 5. Outline of Environmental Friendly Management



2. Environmental Performance

（2）KPI Results (Sayama Factory)

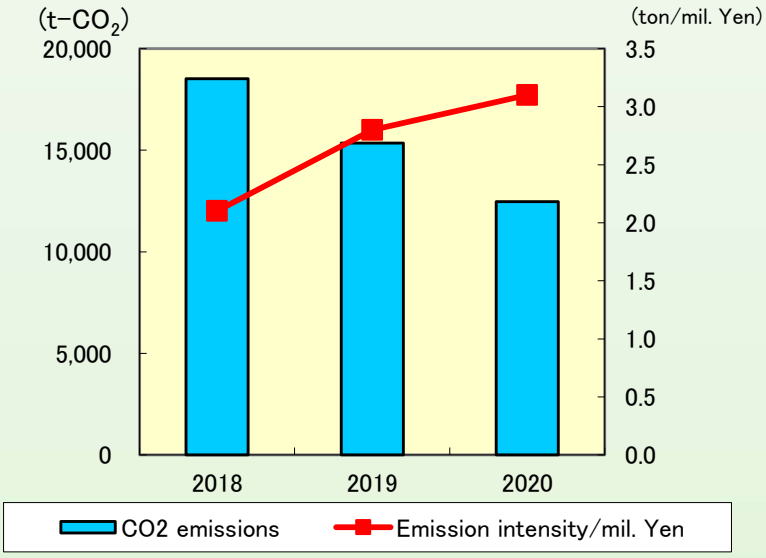
KPI : Key Performance Indicators

[Global warming prevention]

At NDK, we have created a midterm plan including concrete reduction target to reduce CO_2 emission which is the one of the cause of global warming, and promoting it. We are also promoting energy saving activities through such as reduction of energy maintenance loss (complete elimination of waste), reduction of specific energy consumption loss, technology improvement for equipment.

Aiming at reduction of total CO2 emission amount, following actions are taken. Clarification and control of energy used amount (includes CO2 /pure water/tap water) per each department, high efficiency machine introduction (replacement of big ventilation chiller unit to energy saving type), promotion of fuel conversion, utilization of natural energy (solar energy generation), efficient use of energy, enhancement of products energy consumption efficiency, product minimization and shift to LED illumination.

Chart 6. CO_2 emissions and emission intensity



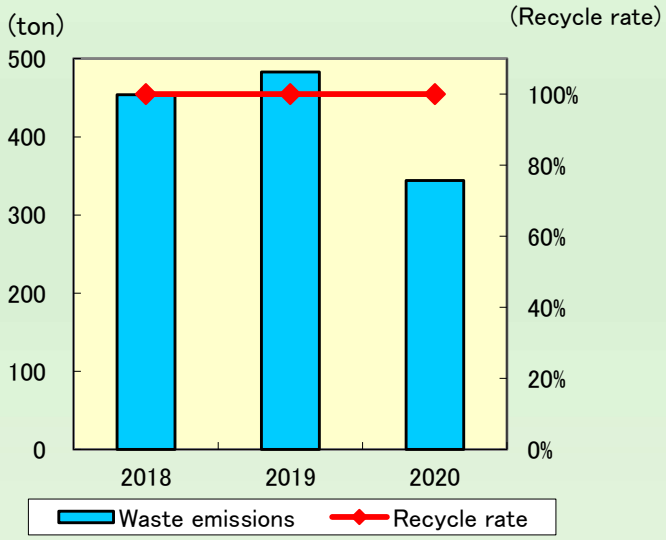
* Based on the coefficient defined by Saitama Prefecture Global Warming Countermeasures Promotion Ordinance.

[Waste reduction]

A wide variety of waste is generated through business activities. To reduce waste which is to be disposed finally, NDK sorts and recycles waste from a perspective of efficient utilization of limited resources and reduction of environmental burden.

Waste emission had been on increase along with production amount growth,houever, Recycle activities have been gone further since FY 2009 and zero emission (100% recycled) has been kept achieving after that.

Chart 7. Waste emissions and recycle rate



（2） KPI Results (Sayama Factory)

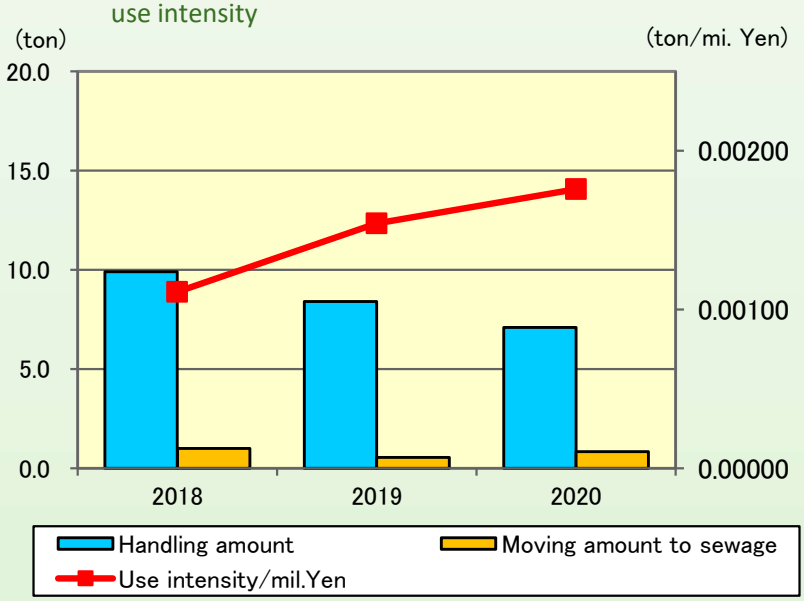
KPI : Key Performance Indicators

[Chemical management]

At NDK, based on PRTR law(*), we work on the reduction of hazardous substances (class 1 designated chemical substance) emission (to air, water and soil) in addition to monitoring for handling amount, emission and moving amount of objective chemicals, and report to government.
(*) Law concerning Pollutant Release and Transfer Register.

At present the object of PRTR law at NDK is only "hydrogen fluoride and its water-soluble salt". Along with the effort to reduce its handling amount through operation process improvement and defect reduction, it's transformed to sludge by effluent treatment to reduce the moving amount to sewage.
The emission to local water (river Iruma) has become 0 and has shifted to sewage since FY 2009.

Chart 8. Use amount / moving amount of hydrogen fluoride and use intensity



（3） Prevention of Air and Water Pollution

Regarding water pollution prevention, we have set waste/effluent treatment facilities in order to comply with the emission standard of laws and legislations. Aiming at the establishment of recycling society system, positive activities are promoted. Also at NDK there is no facility applicable for air pollution control law.

Effluent treatment facility (Sayama Plant)

2. Environmental Performance

（4）Measurement Data (Sayama Plant)

[Emission]

More than 99.5 % of emission is subjected to the thermal recycle or material recycle.

Table 3. Waste emissions

	Unit	FY2016	FY2017	FY2018	FY2019	FY2020
Total discharge amount including waste	ton	355	442	454	483	344
Sludge	kg	289,365	359,416	368,090	392,720	276,300
Metals (battery)	kg	38	64	116	25	283
Wood	kg	5,010	2,510	2,610	3,720	6,510
Oil	kg	11,400	11,193	11,135	9,610	10,200
Acid	kg	479	852	7,648	6,833	9,635
Alkali	kg	16,422	19,718	16,070	17,180	7,070
Glass & Ceramic	kg	19,845	18,310	20,240	25,975	16,660
Plastic	kg	12,799	21,291	28,333	27,064	17,116
＊Other (low ,high concentration PCB)	kg	–	8,407	90	–	–

＊Please refer to P21 5 (3) for PCB waste.

[Resources]

Table 4. Input material amount

	unit	FY2016	FY2017	FY2018	FY2019	FY2020
Type A Heavy Oil	ℓ	1,840	670	1,380	1,040	680
LNG	m3	0	0	0	0	135,287
LPG	m3	65,987	75,250	75,523	95,303	31,511
Electric Power	MWh	32,294	36,311	36,475	29,861	24,207
Water	m3	241,712	315,647	308,113	308,272	263,464
Intensity	m3/pcs.	0.00199	0.00188	0.00170	0.00400	0.00242

2. Environmental Performance

（5）Environmental Tasks and Our Response (Summary)

a.Zero emission at Sayama Plant

Under the slogan of “If you mix, it will be waste. If you sort, it will be resource”, we have implemented thorough waste sorting and kept achieving zero emission since FY 2009.

b.Water consumption reduction of well water at Sayama Plant / city water

The amount of well water and city water used in FY2020 was 263,464 m3, a decrease of 44,808 m3 from 308,272 m3 in FY2019. Also, intensity decreased by 0.0016 m3 / piece from 0.004 m3 / piece to 0.0024 m3 / piece.

c.Reduction of CO2 emissions

Here, we would like to share our activities to reduce CO2 emissions.

There is a heat storage tank installed underground at Sayama Plant, and using midnight power, water in the tank is cooled in summer and warmed in winter. Enegry generated as a result is supplied to cleanroom and office cooling and heating at daytime. This is how we are striving to reduce electricity consumption other than replacing lights with LED.
Also realized the reduction of cardboard consumption, and minitualization and weight reduction of packing box, with the improvement in packing method. It is helpful to reduce transportation cost, too.

Another topic is that, we have achieved the reduction target by 13% against emission standard during 2nd plan period, which is 5 years from FY2015 to FY2019, defined by Saitama Prefecture Global Warming Countermeasures Promotion Ordinance.
Now 3rd plan period, which is from FY2020 to FY2024, has started and the target is reduction by 20% against emission standard. FY2020 monthly average result was 1,039t-CO2 which means reduction rate by 37.7% and the target has been achieved.

d. The result of environmental management program at each department

In FY2020 environmental management program, each department (20 departments) worked on eco-friendly product development, energy saving and defect reduction, and the result was reviewed at global environment protection committee. The achievement rate was 83%.
Almost all departments attained energy saving, and we continue to work on the theme such as eco-friendly product development (mainly minimized product).

e.Examination by a third-party organization and applicable standards for environmental management systems.

We underwent a regular examination (October) by a third-party organization with ISO 14001: 2015 as the applicable standard, and maintained the registration.

f. Compliance

Person in charge of environmental control investigates the compliance status of environmental laws and directives to confirm that laws, directives and local regulations are appropriately complied with.

3. Material Balance

[FY2020material balance]

Understanding the status of environmental burdens generated through business activities is significant to implement eco-friendly activities and to reduce environmental burdens. Main environmental impact through business activities are greenhouse gas and emission of chemicals/wastes.

Regarding greenhouse gas, we understand CO_2 emission through energy consumption as specially important environmental aspect, and are promoting energy saving activities. Not only reducing environmental burdens, NDK aims for the contribution to the establishment of a sustainable society, and we would like to contribute the solution to environmental tasks through environmental cleaning and clean energy use.

Chart 9. FY2020 material balance

IN PUT

Electricity
24,207 MWh

LNG
135,287 m3

LPG
31,511 m3

A heavy oil
680 L

Water
263,464 m3

PRTR substances*1
7.1 t

OUT PUT

CO2 emission
12,474 t

Wastewater
263,464 m3

PRTR substances*1
0.84 t

Wastes*2
344 t
- Sludge：276 t
- Glass：17 t
- Alkali： 7 t
- Others：44 t

*1. PRTR substances means hydrogen fluoride and its water soluble salt.

*2. More than 99.5 % of emission is subjected to the thermal recycle or material recycle.

4. Environmental Conservation Activities

（1）Waste Segregation

[Waste segregation at workplace]

Waste segregation manual is posted on intra-web. Under the slogan of “If you mix, it will be waste. If you segregate, it will be resource”, we are thoroughly implementing waste segregation.

Waste segregation

[Recovery of valuable materials]

After waste segregation, we promote recycle as resource or recovery of valuable materials. “Waste needs money to be disposed of while valuables turn into money.”

Scrap-yard

Waste sorting (recycling)

4. Environmental Conservation Activities

（2）Saving electricity

At Sayama Plant, the representative and promoter of energy saving are appointed at each workplace to promote energy saving activities.

Table 5. The list of energy saving activities

	All year	Summer	Winter	Items
Illumination	○			Use only the half of light at workplace
	○			Introduce pull switch for the area where is not used frequently
	○			Turn on a light where only use
	○			Turn off a light before/after working hours and during lunch break
	○			Turn off a light if necessary illuminance is ensured (such as sunny day)
	○			Turn off a light of where nobody use
	○			Turn off a light of meeting room and break room when you leave
		○		To save energy, come to an office early rather than staying late
Ventilation		○		Appropriate temperature setting for operation area is 28℃ *Not applicable for manufacturing area
			○	Appropriate temperature setting for operation area is 20℃ *Not applicable for manufacturing area
		○		Stop the ventilation when it's working too much
	○			Clean the ventilation filter regularly *once every two weeks
		○		Set the blind, heat barrier films or bamboo blind for the window where sunlight hits
	○			Turn on the ventilation where only use
			○	Shut the blind or curtain after sunset to keep warm air
	○			Close the window or shut the door of area where ventilation is working
	○			Turn off the ventilation of meeting room when you leave
Officer automation machines	○			Close the laptop or turn off the monitor of desktop when you leave
	○			Disconnect the plug of electric machines not in use
	○			Disconnect the plug of desktop when you leave an office
	○			Charge the battery of laptop at night and disconnect AC adopter during daytime
	○			Disconnect the plug of PHS battery not in use
	○			Turn on the standby mode of complex machine/copy machine not in use
Others	○			Use an item which helps for energy saving, considering for cost-effectiveness

4. Environmental Conservation Activities

（3）Local Cleanup

[Saitama load support system]

Sayama Plant joins “Saitama load support system” which Saitama prefecture promotes. This system recruits the organization which voluntarily cleans the road and aims to realize comfortable and clean road environment in cooperation with company and citizen.

《Activities》

We clean the area around the Sayama plant for 4 times a year.

（4）Biodiversity Preservation

[Sayama Plant greening]

At Sayama Plant, we work on greening to preserve biodiversity.

[Using FSC-certified paper]

As a part of biodiversity preservation, we actively use FSC*-certified paper.
*FSC : Forest Stewardship Council

Greened Sayama Plant

FSC mark

4. Environmental Conservation Activities

（5）Green Procurement

Our products are free of hazardous substances and new products are all lead-free in particular. We also actively promote switch from conventional products to lead-free products.

NDK is doing everything it can to procure materials and components produced in environmentally friendly factories that have a low environmental impact and which are energy efficient, require few resources, and are free of harmful substances. At NDK, we are developing a Green Partner network consisting of NDK, our suppliers, and our customers and supplying products that have lower environmental impact.

[Supplier priority criteria]

Aspects below are considered in green procurement.

1) Suppliers which actively promote environmental preservation are taken on priority.
2) Parts and materials which have less environmental burdens are taken on priority.

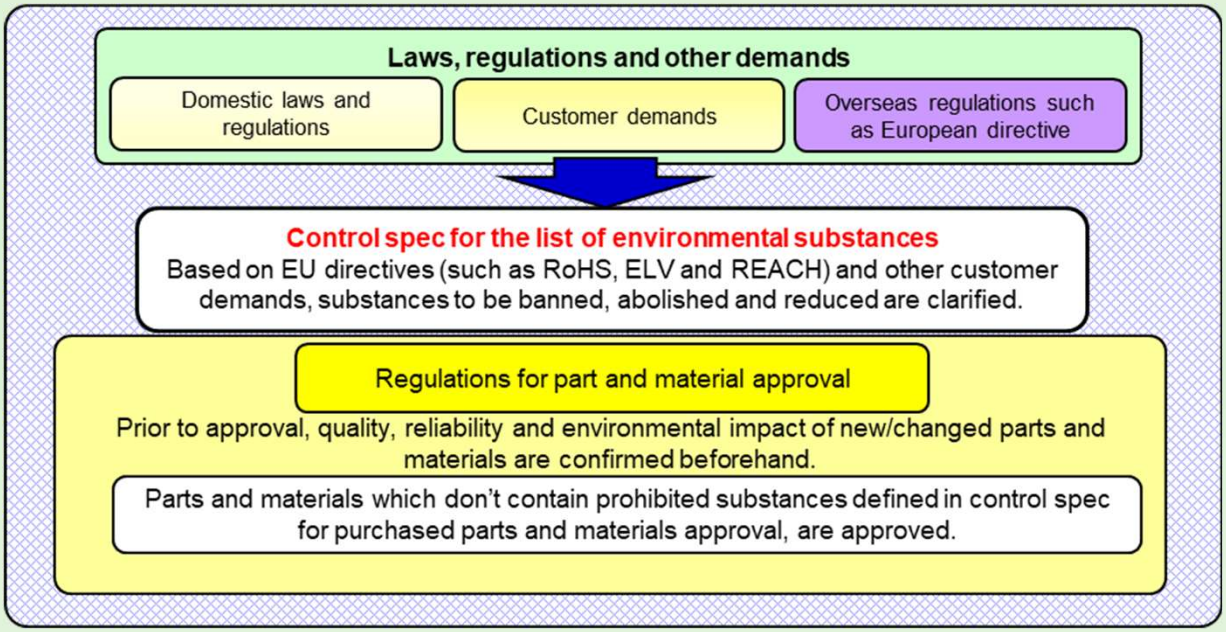
[Evaluation/Judgment criteria]

1) Supplier evaluation/selection (corporate culture)
- Environmental initiatives by ISO14001 certification
- Voluntary environmental initiatives (not certified with ISO14001)

2) Product criteria
- Resource saving of product
- The control and compliance of environmentally hazardous substance
- Resource saving of product packing
- The control and compliance of environmentally hazardous substance in product packing

3) Environmental risk criteria
- Implementation of environmental risk management

Chart 10. Environment related substances control



5. Environmental Compliance

（1）Major Environmental Laws and Regulations

Based on an in-company regulation (control rules for environmental laws and regulations), we investigate and assess the compliance status to environmental laws and regulations, and local regulations.

Table 6. Major environmental laws and regulations

Section	Name
General	The Basic Environment Law
	Act on Improvement of Pollution Prevention Systems in Specified Factories
Global environment	Act on Promotion of Global Warming Countermeasures
Air pollution and offensive odor	Road Transport Vehicle Act
	Act Concerning Special Measures for Total Emission Reduction of Nitrogen Oxides and Particulate Matter from Automobiles in Specified Areas
	Act on Freon emission restriction
	Act on the Protection of the Ozone Layer Through the Control of Specified Substances and Other Measures
	Offensive Odor Control Law
Noise and vibration	Noise Regulation Law
	Vibration Regulation Law
Water pollution and subsidence	Water Pollution Control Law
	Soil Contamination Countermeasures Act
Streamlined energy use Waste and recycle	The Basic Law for Establishing the Recycling-based Society
	Waste Management and Public Cleansing Law
	Law Concerning Special Measures Against PCB Waste
	Law for Recycling of Specified Kinds of Home Appliances
	Act on Promotion of Recycling and Related Activities for Treatment of Cyclical Food Resources
	Law for Promotion of Sorted Collection and Recycling of Containers and Packaging
	Act on the Promotion of Effective Utilization of Resources
	Basic Act on Energy Policy
	Act on the Rational Use, etc. of Energy
	Construction Materials Recycling Law
	Act on Recycling, etc. of End-of-Life Vehicles
Chemical substances	Law Concerning the Reporting of the Release into the Environment of Specific Chemical Substances and Promoting Improvements in Their Management
	Order for Enforcement of the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
	Poisonous and Deleterious Substances Control Law
	the Fire Services Act (dangerous materials)
	High Pressure Gas Safety Act
Land use	Factory Location Act
Others	Electricity Business Act
	Radio Act
	Basic Act on Biodiversity
Sewerage	Sewerage Act

5. Environmental Compliance

（2）Wastewater Management

[Water Quality]

As to drainage, according to the inspection based on the laws and regulations, there is no problem. Below are FY2020 results.

Table 7. The limit and contained amount of restricted substances (Hazardous substances)

Items	Unit	Limit	Measured value
Cadmium and its compounds	mg/l	0.1	< 0.001
Cyanogen compound	mg/l	1	< 0.02
Organophosphorus compounds	mg/l	1	< 0.1
Lead and its compounds	mg/l	0.1	< 0.01
Hexavalent chromium compound	mg/l	0.5	< 0.005
Arsenic and its compounds	mg/l	0.1	< 0.01
Mercury and its compounds	mg/l	0.005	< 0.0005
Alkyl mercury compounds	-	Not to be detected	Not detected
Polychlorinated biphenyl	mg/l	0.003	< 0.0005
Trichloroethylene	mg/l	0.1	< 0.001
Tetrachloroethylene	mg/l	0.1	< 0.001
Dichloromethane	mg/l	0.2	< 0.002
Carbon tetrachloride	mg/l	0.02	< 0.002
1, 2 – Dichloroethane	mg/l	0.04	< 0.004
1, 1 - Dichloroethylene	mg/l	1	< 0.02
Cis - 1, 2 - Dichloroethylene	mg/l	0.4	< 0.04
1, 1, 1 - Trichloroethane	mg/l	3	< 0.001
1, 1, 2 - Trichloroethane	mg/l	0.06	< 0.001
1, 3 - Dichloropropene	mg/l	0.02	< 0.001
Thiuram	mg/l	0.06	< 0.006
Simazine	mg/l	0.03	< 0.003
Benthiocarb	mg/l	0.2	< 0.02
Benzene	mg/l	0.1	< 0.01
Selenium and its Compounds	mg/l	0.1	< 0.01
Boron and its Compounds	mg/l	10	< 0.2
Fluorine and its Compounds	mg/l	8	5
1, 4 - Dioxane	mg/l	0.5	< 0.05
Ammonia and its Compounds	mg/l	100	9.6

5. Environmental Compliance

（2）Wastewater Management

Table 8. The limit and contained amount of restricted substances (other drainage)

Items	Unit	Limit	Measured value
pH	pH	5.8 ≤ χ ≤ 8.6	7.1
BOD	mg/l	160	6.2
COD	mg/l	160	4.3
SS	mg/l	200	10.0
n-Hex (mineral oil)	mg/l	5	< 1
Phenol	mg/l	5	< 0.5
Copper	mg/l	3	< 0.2
Zinc	mg/l	2	< 0.05
s-Fe	mg/l	10	< 0.3
s-Mn	mg/l	10	< 0.1
Nitrogen	mg/l	120	17.3
Phosphorus	mg/l	16	< 0.06

（3）Polychlorobiphenyl (PCB) Management

The condition of PCB waste storage and disposal is notified to Saitama Prefecture in accordance with the provisions of Article 8 of Law Concerning Special Measures Against PCB Waste. We have completely discarded low and high concentrations of PCBs by2018.

The place where the PCB was stored.

NIHON DEMPA KOGYO CO., LTD.

[Environmental Report 2021]

Editorial policy

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